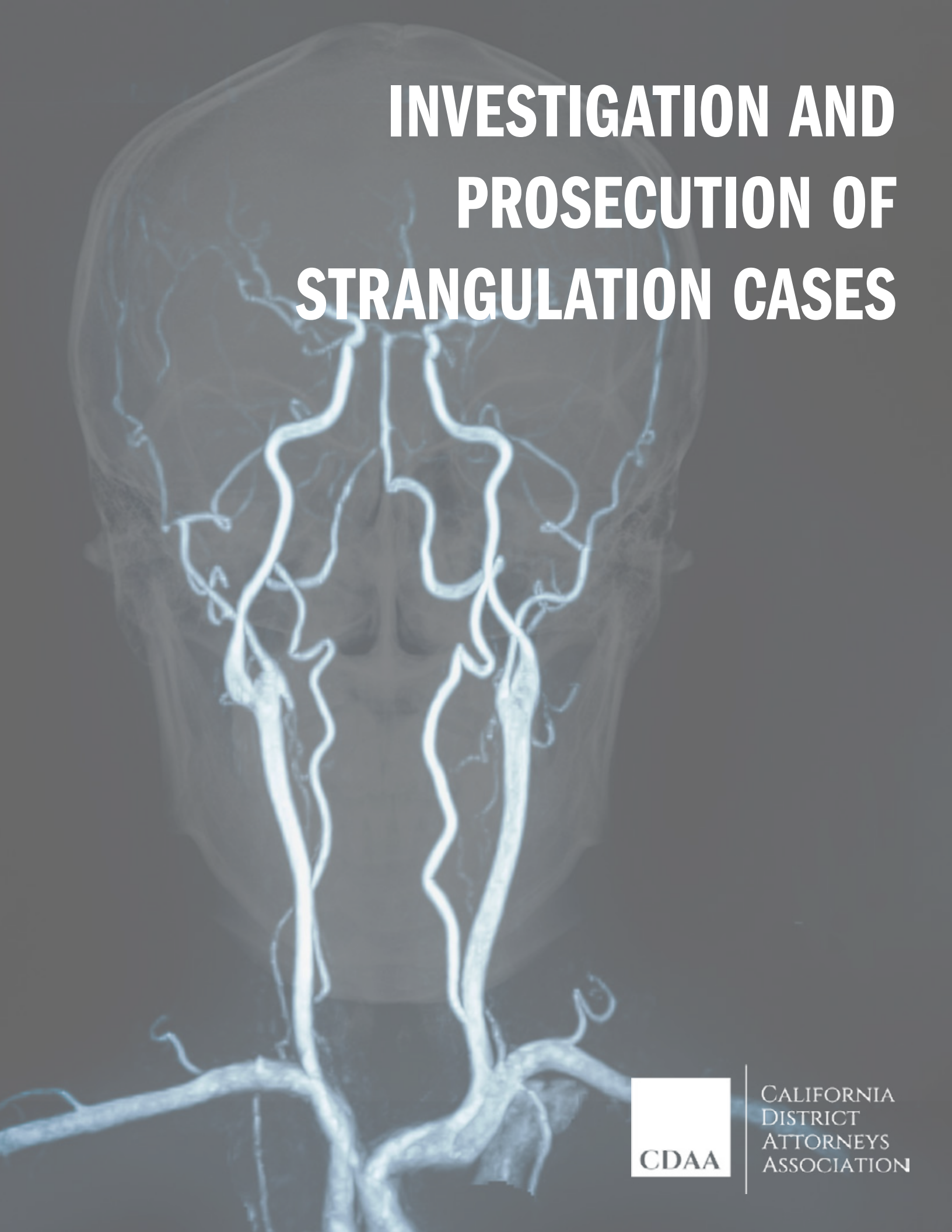

INVESTIGATION AND PROSECUTION OF STRANGULATION CASES

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California District Attorneys Association

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This publication was financially assisted through Grant Award Number LV12141059 from the California Governor's Office of Emergency Services (Cal OES) to the California District Attorneys Association (CDAA) and the Training Institute on Strangulation Prevention. The opinions, findings, and conclusions in this publication are those of the Training Institute and CDAA, and not necessarily those of Cal OES, which reserves a royalty-free, non-exclusive, and irrevocable license to reproduce, publish, and use these materials and authorize others to do so.

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Printed in the United States of America.

Investigation and Prosecution of Strangulation Cases

2020

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1

Introduction and Overview of Strangulation and Suffocation Assaults

Casey Gwinn, J.D.

Gael B. Strack, J.D.

"Actually, when I came out of that [strangulation incident], I was more submissive—more terrified that the next time I might not come out—I might not make it. So I think I gave him all my power from there because I could see how easy it was for him to just take my life like he had given it to me."

— Former San Diego Family Justice Center Client (2010)

Editor's Note: Although CDAA always strives to be gender-neutral, strangulation is a very gendered crime. In an effort to not misrepresent this, victims in this manual are referred to as female, while the defendants are referred to as male unless otherwise noted.

I. INTRODUCTION

Stranglers are some of the most dangerous men on the planet, and many professionals continue to miss this truth. The majority of mass shooters, cop killers, domestic terrorists, and domestic violence killers in this country have two things in common: a history of childhood trauma and a prior history of strangulation assault against women before they kill women or others.[1] When a person applies pressure to another's neck, they are raising their hand and saying they are killers. Why? What is the connection between strangulation and the mass shooters and cop killers of America? The reasons are complex, but the rage of stranglers, often soaked in misogyny, appears to produce what is referred to as a "loaded God-complex." Stranglers want their victims to know that they have complete control over whether their victims live or die. Stranglers literally hold victims' lives in their hands. It makes sense then that such rage-filled entitlement increases the likelihood that a strangler will kill a police officer or attack others when his power is questioned or challenged. In failing to understand these complex connections, police officers, women, mass shooting victims, and many in the general public are dying because of our failed interventions with stranglers.

As prosecutors, we have a responsibility to do something about it. We cannot continue to hear the words "he choked me" and treat these types of assaults like we would a slap or a punch. The difference between life and death in most strangulation assaults is only a matter of seconds. Prosecutors have a unique opportunity to stop most stranglers before they kill, but we must seize that opportunity in order to prevent homicides.

1. Casey Gwinn and Chan Hellman, *Hope Rising: How the Science of HOPE Can Change Your Life* (May 2018) Morgan James Publishing <https://www.allianceforhope.com/product/hope-rising-how-the-science-of-hope-can-change-your-life/> (accessed Aug. 31, 2020).

We must learn to more effectively investigate and prosecute near and non-fatal strangulation assaults as felony offenses even with little or no external visible injury. We must pursue these complicated cases even without victim participation or testimony. We must work in Family Justice Centers (FJCs) and with multidisciplinary teams (MDTs) to effectively hold offenders accountable and provide victims with the medical advocacy and support needed by survivors. Every time we hold a strangler accountable, we reduce the likelihood of a homicide, and we send a message to stranglers: We see you and will not let you commit life-threatening and often brain-damaging assaults with impunity.

Our Training Institute on Strangulation Prevention is honored to collaborate again with the California District Attorneys Association (CDAA) on the second edition of *Investigation & Prosecution of Strangulation Cases*.[2] In 2013, we helped edit and author this manual—the first ever published on the investigation and prosecution of strangulation cases—with financial support from the California Governor's Office of Emergency Services (Cal OES). The original manual would not have been published without the tremendous leadership of Jean Jordan, then CDAA's Director of Violence Against Women, as well as the donated time of our contributing authors who came together to share their expertise and knowledge in writing the core chapters on the law, investigation, prosecution, medical documentation, death by strangulation, use of experts, and victim advocacy. The goal of the project was to provide California law enforcement officers, investigators, prosecutors, experts, and advocates with the most current information, research, case law, and resources available at the time in order to enhance their practice, hold offenders accountable, and increase victim safety. Seven years later, the partnership continues, and many of the original authors have reconvened to update this invaluable resource. In the last few years, we have seen tremendous progress with new laws, research, case law, resources, protocols, and the development of MDTs. Our rapidly changing understanding has produced the need for more specialization, advanced training, and more experts to testify in felony strangulation cases. We encourage you to dive in, learn more about this deadly crime, and join the growing list of advisors, trainers, researchers, experts, survivors, and friends of the Institute and CDAA. We are all committed to hold stranglers accountable and support survivors.

II. OVERVIEW OF STRANGULATION

Strangulation impacts all professionals working on sexual assault, domestic violence, child abuse, elder abuse, animal abuse, and human trafficking cases. "Strangulation" is external pressure to the neck, by any means, that impedes airflow, blood flow, or both. "Suffocation" is the obstruction of airflow to and from the lungs making it difficult to breathe. Continuous pressure and obstruction of blood flow and/or airflow can lead to unconsciousness within seconds and death within minutes. Some use the terms "strangulation" and "suffocation" interchangeably, which is incorrect because they are distinctively different mechanisms. While many victims say they have been "choked," it is not "choking." "Choking" is when something is accidentally—most often food—lodged in your throat. Strangulation is intentional, lethal, and deadly. The term strangulation should always be used when external pressure is applied to the neck even when recording a victim's statement stating that the victim was choked.[3]

Today, it is understood unequivocally that strangulation is one of the most lethal forms of domestic violence. Victims may have no visible injuries—because of underlying brain damage or other internal injury due

2. <https://www.allianceforhope.com> (accessed Aug. 31, 2020).
3. Ellen Taliaferro, et al., "Strangulation in Intimate Partner Violence" in *Intimate Partner Violence* (2009) Oxford Press, Ch. 16.

to the lack of oxygen during the strangulation assault—yet they may have sustained serious internal injuries. They may even die days or weeks after the attack due to a stroke, suffer a traumatic brain injury, or experience other long-term physical and mental health consequences. Non-fatal strangulation and suffocation assaults are also more prevalent than we realized years ago with rates between 68–80 percent for high-risk victims.[4]

When a victim is strangled, the attacker is on the edge of a homicide. Strangulation is one of the most accurate predictors for the subsequent homicide of domestic violence victims. One study showed that "the odds of becoming an attempted homicide victim increased by about seven-fold for women who had been strangled by their partner."[5] Women who are strangled multiple times are even at higher risk.[6] Another study found that 100 percent of murdered domestic violence victims were strangled before they were killed, making strangulation often "the last warning shot" before a homicide occurs.[7]

Strangulation has also been linked to officer-involved critical incidents, officers killed in the line of duty in intentional homicides, and mass murders.[8] The research clearly shows the need for all professionals to improve how they screen and document strangulation cases, and when working with a known strangled victim, to make good use of risk assessment tools, encourage medical treatment, create personalized safety plans, and offer long-term follow-up (See Chapter 8: Victim Advocacy in Strangulation Cases.)

Strangulation is also a form of power and control that can have devastating psychological effects on victims in addition to potentially fatal outcomes, including suicide.[9] While most abusers do not strangle to kill their partner, they want them to know that they can kill them at any time. Many victims who are strangled believed they were going die (70 percent) and at least 31 percent of those victims later contemplated suicide.[10] The inability to breathe is one of the most terrifying events a person can endure. Survivors of non-fatal strangulation have known for years what many professionals are only recently learning: Many domestic violence perpetrators use strangulation and suffocation to silence their victims, gain control, torture, and/or kill them. Strangulation has now been recognized to be the equivalent of waterboarding.[11] The unique nature of non-fatal strangulation assaults makes it a particularly effective tool of coercive control. With non-fatal strangulation, it is possible to bring someone to the point of

4. Lee Wilbur, et al., *Survey Results of Women Who Have Been Strangled While in an Abusive Relationship* (Oct. 2001) 21 Journal of Emergency Medicine 3: pp. 297–302 <https://www.sciencedirect.com/science/article/abs/pii/S0736467901003985> (accessed Aug. 31, 2020).
5. Nancy Glass, et al., *Non-Fatal Strangulation Is an Important Risk Factor for Homicide of Women* (Nov. 2007) 35 Journal of Emergency Medicine 3: pp. 329–335 <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2573025/> (accessed Aug. 31, 2020).
6. Jill T. Messing, et al., *The Oklahoma Lethality Assessment Study: A Quasi-Experimental Evaluation of the Lethality Assessment Program* (Sep. 2015) 89 Social Science Review 3: pp. 499–530 <https://bit.ly/2V77u8r> (accessed Aug. 31, 2020).
7. Brynn E. Sheehan, et al., *Intimate Partner Homicide: New Insights for Understanding Risks and Lethality* (Dec. 2014) 21 Violence Against Women 2 <https://journals.sagepub.com/doi/abs/10.1177/1077801214564687> (accessed Aug. 31, 2020).
8. Casey Gwinn, *Men Who Strangle Women Also Kill Cops* (Winter 2015) 7 Family & Intimate Partner Violence Quarterly 3: pp. 197–199(3) <https://bit.ly/2TO99hN> (accessed Aug. 31, 2020); Gwinn and Hellman, *Hope Rising*, *supra*.
9. Gael B. Strack and Casey Gwinn, *On the Edge of Homicide: Strangulation as a Prelude* (Fall 2011) 26 Criminal Justice 3 <https://bit.ly/2ZN9vJs> (accessed Aug. 31, 2020); Adam J. Pritchard, et al., *Nonfatal Strangulation as Part of Domestic Violence: A Review of Research* (Dec. 2015) 18 Trauma Violence & Abuse 4: pp. 407–424 <https://journals.sagepub.com/doi/abs/10.1177/1524838015622439?journalCode=tvaa> (accessed Aug. 31, 2020).
10. Wilbur, *Survey Results*, *supra*.
11. Susan B. Sorenson, et al., *A Systematic Review of the Epidemiology of Nonfatal Strangulation, a Human Rights and Health Concern* (Nov. 2014) 104 American Journal of Public Health 11: pp. e54–e61 <https://bit.ly/38IK6SH> (accessed Aug. 31, 2020).

believing death is imminent, but then stop, either before or immediately after they lose consciousness.[12] In doing so, the strangler conveys a very powerful and credible threat of imminent death, which is an essential element of establishing and maintaining coercive control.[13] Evan Stark has described coercive control as resulting in a "condition of unfreedom and a feeling of entrapment for survivors."[14] Strangulation survivors learn to comply with their abusive partner's subsequent demands as a survival strategy while abusers realize they can get away with it; soon it becomes their weapon of choice.

Repeated injuries, concussions, and anoxic brain injuries will eventually take their toll.[15] It is estimated that one in five domestic violence victims has threatened or attempted suicide during their lifetime.[16] The Centers for Disease Control estimates suicide is among the 10 leading causes of death among women aged 10 to 54 in the United States.[17] But why do survivors of strangulation assault become suicidal after living through the scariest ordeal of their lives? Because the near-death experience of strangulation robs victims of hope.

Hope is the belief that your future can be brighter than your past and that you play a role in making it so. Hope is a future orientation with goal setting, motivation to pursue those goals, and the strategic thinking skills to overcome obstacles to achieve goals. The opposite of hope is apathy. Apathy occurs when we cannot control anything about our lives and begin to feel that "nothing will ever change" or "nothing that I want in life can happen."[18] A woman being strangled by the person she loves, realizing that the man on top of her with his hand or hands around her neck holds all the power over her life has been robbed of all hope, of any ability to set goals, and any dreams for the future. Robbed of all hope, survivors often begin to feel there is no way out, and suicide becomes a way to stop the pain and end the terrifying reality of living with the strangler. Strangulation adds a life and death terror unparalleled in most other types of domestic and sexual violence assaults, which is why prosecutors need to take strangulation cases more seriously.[19]

Strangulation is most often perpetrated by men against their intimate partners. In our original 1995 San Diego study, 99 percent of perpetrators were men.[20] For the rage-filled, "loaded God-complex" man,

12. George E. McClane, et al., *A Review of 300 Attempted Strangulation Cases Part II: Clinical Evaluation of the Surviving Victim* (Oct. 2001) 21 Journal of Emergency Medicine 3: pp. 311–315 <https://www.sciencedirect.com/science/article/abs/pii/S0736467901004000> (accessed Aug. 31, 2020); Sylvia A. Vella, *Cognitions and Behaviors of Strangulation Survivors of Intimate Terrorism* (2013) Alliant International University, California School of Professional Psychology, San Diego.
13. Kristie A. Thomas, et al., *"Do You Know What It Feels Like to Drown?": Strangulation as Coercive Control in Intimate Relationships* (2014) 38 Psychology of Women Quarterly 1: pp. 124–137 <https://bit.ly/2HDwNqR> (accessed Aug. 31, 2020).
14. Evan Stark, *Coercive Control: How Men Entrap Women in Personal Life* (2009) Oxford University Press.
15. Rebecca Voelker, *For Survivors of Intimate Partner Violence, Overlooked Brain Injuries Take a Toll* (Aug. 14, 2018) 320 JAMA 6: pp. 535–537 <https://doi.org/10.1001/jama.2018.9051> (accessed Aug. 31, 2020).
16. Courtenay E. Cavanaugh, et al., *Prevalence and Correlates of Suicidal Behavior Among Adult Female Victims of Intimate Partner Violence* (Aug. 2011) 41 Suicide and Life-Threatening Behavior 4: pp. 372–383 <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3152586/> (accessed Aug. 31, 2020).
17. <https://www.cdc.gov/women/lcod/2017/all-races-origins/index.htm> (accessed Aug. 31, 2020).
18. Gwinn and Hellman, *Hope Rising*, *supra*.
19. Gael B. Strack and Casey Gwinn, *Robbed of Hope: Is the Suicide of a Battered Woman Murder?* (Aug./Sep. 2019) 24 Domestic Violence Report 6: pp. 91–94(4) <https://bit.ly/2M6D68z> (accessed Aug. 31, 2020).
20. Gael B. Strack, et al., *A Review of 300 Attempted Strangulation Cases Part I: Criminal Legal Issues* (Oct. 2001) 21 Journal of Emergency Medicine 3: pp. 303–309 <https://www.sciencedirect.com/science/article/abs/pii/S0736467901003997> (accessed Aug. 31, 2020); Heather Wolfgram, *The Impact of Minnesota's Felony Strangulation Law* (Jan. 2007) WATCH <https://vawnet.org/material/impact-minnesotas-felony-strangulation-law> (accessed Aug. 31, 2020).

strangulation is the weapon of choice. The experienced batterer knows that without visible injury, an untrained officer is less likely to find probable cause to arrest; therefore, the chance of being arrested goes down dramatically. Indeed, most injuries may end up on the perpetrator as the victim fights for her life, increasing the odds that she is the one who will be arrested when untrained officers arrive. Who is going to believe the hostile and combative victim with no visible injuries, especially if the batterer has scratch marks and bite marks from the victim trying to defend herself? Domestic violence perpetrators who use strangulation to silence their victims to the point of unconsciousness not only commit a felonious assault, but should be charged for attempted murder and even torture.[21] (See Chapter 4: Prosecuting Strangulation Cases.)

Given the lethality and seriousness of non-fatal strangulation, it is critical we hold the most dangerous offenders accountable for the felonious crimes they commit and advocate for victim safety from the bail hearing, to sentencing, and through the entire period of probation and/or parole. Stranglers are different. They pose a higher risk to their victim and the public in general. They need to be charged, prosecuted, and convicted for the felony offenses. Reducing strangulation charges to misdemeanors or allowing stranglers to divert out of the criminal justice system sends the wrong message to offenders, victims, and the public. (See Chapter 4: Prosecuting Strangulation Cases.)

A. What Happens When a Victim Is Strangled?

When a victim is strangled, unconsciousness can occur within seconds and death within minutes. Victims may lose consciousness by any of the following methods: blocking the carotid arteries in the neck (depriving the brain of oxygen), blocking the jugular veins (preventing deoxygenated blood from exiting the brain), or closing off the airway (making breathing impossible). With continuous pressure after unconsciousness, urination has been reported to occur within 15 seconds and defecation within 30 seconds. Seizures have also been reported after pressure has been released as well as during the application of pressure. (See Chapter 5: Medical and Forensic Evaluation in Non-Fatal Strangulation Cases.)

The neck is extremely vulnerable. Very little pressure on both the carotid arteries for less than 10 seconds is all that is necessary to cause unconsciousness. If the veins are compressed while the arteries are open and pumping blood, little red spots called petechiae may result from build-up of venous pressure. Petechiae are smooth to the touch and provide evidence of internal injuries even though most visible petechiae will be on the surface of the skin—above the pressure of the chokehold. They form immediately or within seconds. If the pressure is immediately released, consciousness will be regained within 10 seconds. To completely close off the trachea (windpipe), more pressure is required. Brain death will occur in minutes if strangulation persists. It is important to remember that in strangulation cases, often, there are no visible external injuries, even in fatal cases.[22] (See Chapter 6: Death by Strangulation or Suffocation.)

21. *People v. Vicary* (2014) 2014 WL 2109765 [unpublished]; *People v. Vanderwood* (2019) 2019 WL 1482459 [unpublished].
22. Dean A. Hawley, et al., *A Review of 300 Attempted Strangulation Cases Part III: Injuries in Fatal Cases* (Oct. 2001) 21 Journal of Emergency Medicine 3: pp. 317–322 <https://www.jem-journal.com/article/S0736-4679(01)00401-2/fulltext> (accessed Aug. 31, 2020).

B. Creating Awareness of the Seriousness of Strangulation

For many years, medical training to identify domestic violence injuries—including strangulation—for law enforcement officers, prosecutors, and advocates was often overlooked and not included in core training. It was the deaths of 17-year old Casondra Stewart and 16-year old Tamara Smith in 1995 when the San Diego criminal justice system first began to understand the lethality and seriousness of "choking" cases. The deaths of these two teenagers were a sobering reminder of the reality of relationship violence, prompting the San Diego City Attorney's Office to study existing "choking" cases being prosecuted within the office. *Our study revealed that, on a regular basis, victims had reported being "choked," and in many of those cases, there was very little visible injury or evidence to corroborate the "choking" incident.* The lack of physical evidence caused the criminal justice system to treat many "choking" cases as minor incidents, much like a slap to the face where only redness may appear. These two horrific deaths ultimately changed the course of history and launched an aggressive awareness and education campaign to recruit experts and improve the criminal justice system's response of handling "choking" cases, which are now referred to as "near-fatal strangulation" cases. The momentum for specialized training has now spread around the country.[23]

As a result of those early efforts, many strangulation cases are now being elevated to felony-level prosecution due to professionals understanding the lethality of strangulation. The momentum for change has spread worldwide. Police and prosecutors are using existing statutes or working with legislators to create new felony legislation. As of August 2019, 48 states have passed some form of a felony strangulation and suffocation law. We also have strangulation and suffocation statutes in federal law and the Uniform Code of Military Justice, two U.S. territories (Guam and Virgin Islands), and 20 tribal codes. Australia and New Zealand have passed new strangulation laws with other countries are not far behind.[24] (See Chapter 2: Strangulation and the Law.)

In 2017, California passed one of the most life-saving statutes in America. Thanks to the efforts of Senator Richard Roth and Assistant District Attorney Gerald Fineman in the Riverside County District Attorney's Office, Penal Code section 13701 mandates law enforcement officers warn victims that strangulation can cause serious internal injuries and urge them to seek immediate medical attention and contact an advocate (duty to warn). Section 13730 requires law enforcement agencies to modify their reporting forms to document when strangulation and/or suffocation has occurred during a domestic violence incident (duty to track).

These new laws, protocols, and practices have also created a demand for further specialization and expert witnesses. There are also many more research articles, publications, resolutions, and published and unpublished cases on strangulation to assist professionals in their practice. Doctors, forensic nurses, and detectives are regularly being used as experts and testifying in court about strangulation. Communities such as San Diego, Riverside, Ventura, and Stanislaus are now implementing countywide protocols using forensic nurses to assess and document signs and symptoms of strangulation. Despite dramatic changes in law, policy, and practice, however,

23. Pritchard, et al., *Nonfatal Strangulation as Part of Domestic Violence*, *supra*.
24. For a complete and updated list of existing strangulation laws, visit https://www.strangulationtraininginstitute.com/resources/legislation-map/ to review the Legislative Map of strangulation statutes.

there is still much more communities in California can do to improve their response to this deadly and devastating crime. There is no doubt that passing a new, standalone strangulation law has the potential to shine a spotlight on this issue and send a strong message to perpetrators that the community takes domestic violence and strangulation very seriously. But training and implementing these new laws are key.

The Training Institute on Strangulation Prevention was launched in October 2011 as a program of the Alliance for HOPE International (Alliance). The Alliance serves as the comprehensive training and technical assistance provider for the U.S. Department of Justice's Office on Violence Against Women (OVW) grantees. The Institute provides training, technical assistance, web-based education programs, an online directory of national trainers and experts, and a clearinghouse for all research related to domestic violence and sexual assault strangulation crimes. On-site strangulation training is provided at state and national conferences, regional police training academies, and hospital grand rounds. Webinars and online trainings are also available in the Institute's resource library at *https://www.familyjusticecenter.org/resources/*.

The goals of the Institute are to: (1) enhance the knowledge and understanding of professionals working with victims of domestic and sexual violence who are strangled; (2) improve policy and practice among the legal, medical, and advocacy communities; (3) maximize capacity and expertise; (4) increase offender accountability; and (5) ultimately enhance victim safety.

C. The Continuing Need for Awareness and Education

There is still a need for consistent, basic, and advanced strangulation training statewide and nationwide. Domestic and sexual violence professionals rarely receive medical training concerning the identification and documentation of injuries or the signs and symptoms associated with strangulation. Providing these trainings on a regular basis will help institutionalize our best practices understanding of strangulation, increase the capacity of professionals to handle these cases effectively, and ultimately save lives. Every law enforcement officer and prosecutor in California should receive training on strangulation.

There is also a need to develop local and state implementation plans for the integration of strangulation training into core training programs for all professionals, especially after a state passes a new felony strangulation law. The best way to develop an implementation plan is to start a multidisciplinary response team to focus on this issue as well as training, policy development, and the use of documentation instruments. Implementation also requires leadership. Prosecutors are in the best position to provide that leadership in their community by convening key stakeholders to the table to discuss developing a countywide protocol, creating new reporting forms, enhancing the use of forensic nurses, and providing specialized training and advocacy. A good example is the San Diego Countywide Protocol on Strangulation that includes the use of forensic nurses as part of their response team. Since adopting the strangulation protocol in January 2017, under the leadership of District Attorney Summer Stephan and Chief Deputy District Attorney Tracy Prior, prosecution of felony strangulation cases in San Diego has increased close to 40 percent with

an average conviction rate of 96 percent.[25] San Diego County has also seen a drop in domestic violence homicides countywide with its focus on holding stranglers accountable.

There is still a need for more research. While more research on non-fatal strangulation has been conducted over the last 20 years, we still know very little about strangulation among same-sex couples, in children, elders, sexual assault, and human trafficking survivors. For example, as of 2018, only one article has focused on same-sex strangulation: *A Comparison of Intimate Partner Violence Strangulation Between Same-Sex and Different-Sex Couples*.[26] In this article, the authors found that while strangulation also occurs in same-sex couples, it was often missed, overlooked, and/or not identified. We have much more work to do in training professionals, holding stranglers accountable, and providing support for survivors. We have come very far in the last 20 years, but more remains to be done.

Casondra Stewart and Tamara Smith did not die in vain in San Diego in 1995. Their tragic deaths have clearly led to dramatic changes in California, across the country, and around the world. And the work must continue.

ABOUT THE AUTHORS

Casey Gwinn *is the president and co-founder of Alliance for HOPE International. The Alliance has five major programs: The Family Justice Center Alliance, The Training Institute on Strangulation Prevention, Camp Hope America, VOICES, and the Justice Legal Network. Casey is the visionary behind the family justice center movement, first proposing the concept in 1989. He is also the founder of Camp Hope America, the first camping and mentoring program in the country for children impacted by domestic violence. Casey is a national expert on domestic violence, the impact of childhood trauma, and the science of hope. Prior to his current position, he was the elected San Diego City Attorney and served as a California prosecutor for 20 years.*

Gael B. Strack *is the chief executive officer and co-founder of Alliance for HOPE International and oversees the Training Institute on Strangulation Prevention. In her spare time, she is an adjunct professor at California Western School of Law teaching a class on Domestic Violence and the Law. She is a nationally recognized expert on domestic violence, including strangulation, prosecution, and family justice centers. Prior to her current position, she served as the first director of the San Diego Family Justice Center, an assistant city attorney, a deputy public defender, and a deputy county counsel.*

25. Tracy Prior, "San Diego County's Strangulation Protocol: Improving Evidence Collection to Win the War" (2018) *The Prosecutor*, National District Attorneys Association.
26. Jill T. Messing, et al., *A Comparison of Intimate Partner Violence Strangulation Between Same-Sex and Different-Sex Couples* (2018) Journal of Interpersonal Violence <https://journals.sagepub.com/doi/10.1177/0886260518757223> (accessed Aug. 31, 2020).

Strangulation and the Law

Gael B. Strack, J.D.
Casey Gwinn, J.D.

"Every survivor will tell you the same story. The inability to breathe is terrifying. It is fundamentally terrifying. It is so basic to our ability to survive. Being hit is bad but losing the ability to breathe (as a result of strangulation) is worse in a whole host of ways. I urge you to understand what those who are subjected to this behavior go through … and move forward with this bill to protect all of us who have been and will be victims of strangulation."

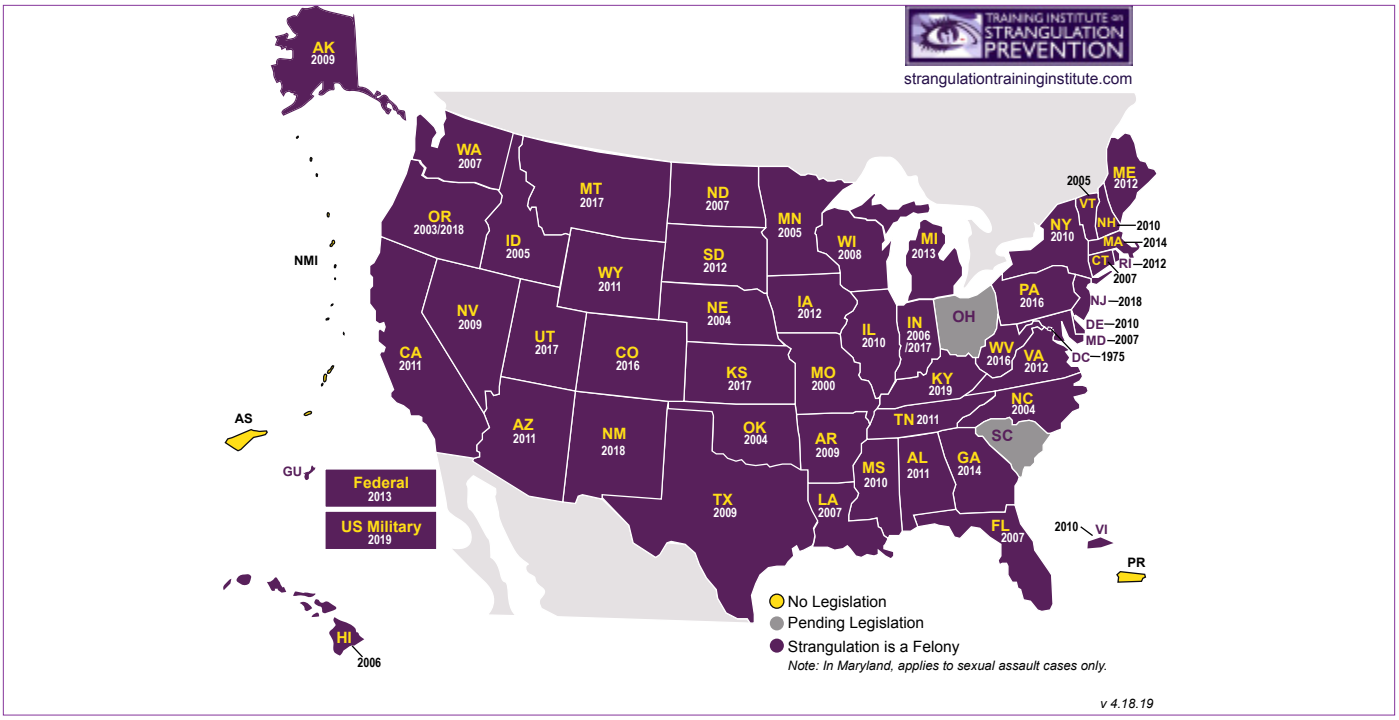
— Senator Hayward (Survivor of Strangulation and a Physician)
Advocating for a Felony Strangulation Statute in Oregon, SB 1562, Feb. 2018

Editor's Note: Although CDAA always strives to be gender-neutral, strangulation is a very gendered crime. In an effort to not misrepresent this, victims in this manual are referred to as female, while the defendants are referred to as male unless otherwise noted.

I. Introduction

For many years in California and across the country, prosecutors have inadvertently failed to treat near and non-fatal strangulation assaults as serious crimes. The lack of physical evidence, experts, training, laws, and protocols caused well-meaning professionals to unintentionally minimize one of the most lethal forms of domestic violence. Often, strangulation cases were not prosecuted at all and even if they were, they were treated as low-level misdemeanors due to the lack of visible injuries. Thankfully, tremendous progress has been made over the last 20 years.

Chapter 2 lays the foundation for Chapter 3: Investigating Strangulation Cases and Chapter 4: Prosecuting Strangulation Cases, by explaining why non-fatal strangulation is now a felony in California, as well as 47 other states, two United States territories, the federal code, the military code, and 20 tribal codes. In addition, Chapter 2 discusses how prosecutors can persuasively articulate and highlight the seriousness and lethality of strangulation cases, the need for felony prosecution, higher bail, important bail conditions, and other court considerations; focuses on understanding the current state of the law in California, including the recent strangulation law enacted pursuant to Penal Code section 273.5; and provides a national overview of strangulation case law from other states to assist prosecutors where there are gaps in California law.



II. The Diana Gonzalez Strangulation Prevention Act of 2011

In 2011, California passed Senate Bill 430 (Kehoe), which for the first time, added definitional language to Penal Code section 273.5 to assist prosecutors in specifically charging non-fatal strangulation offenses as felonies.[1] The new statutory language became effective January 1, 2012. The motivation behind this legislation was to honor Diana Gonzalez and bring awareness to the seriousness and lethality of non-fatal strangulation.

On October 12, 2010, Diana was repeatedly stabbed to death by her common-law husband Armando Perez on the campus of San Diego City College. But weeks before she was murdered, she was strangled to the point of unconsciousness, kidnapped, threatened with death repeatedly, and sexually assaulted. After being held captive for two days, Diana eventually convinced Armando to let her go and take her back home to be with her baby. When Perez dropped her off at her mother's house where Diana was living, Diana told her mother what had happened. The police were immediately called, and a sexual assault exam was conducted. At the time of her exam, Diana still had evidence of facial petechiae and other injuries. Perez was subsequently arrested and claimed everything was consensual. No charges were filed by the district attorney or city attorney. Diana subsequently obtained a protection order to keep Perez away from her. But after being released from custody, Perez continued to stalk Diana and ultimately murdered her. Perez immediately fled to Mexico and avoided being arrested until the district attorney's office negotiated with the Mexico government to extradite him back to San Diego where he was later convicted for murder. He is serving a life sentence without the possibility of parole.[2]

1. Senate Bill 430, 2011–2012 Reg. Sess., unanimously passed the state Senate and Assembly and was signed by the Governor at a time when the Legislature was adamantly opposed to creating any felony laws that would add to jail overcrowding. Despite those concerns, the Legislature recognized the need to bring attention to strangulation cases and provide a valuable tool for prosecutors to intervene before homicides occur <*https://www.strangulationtraininginstitute.com/resources/legislation-map/*> (accessed Aug. 31, 2020).

For a number of reasons, section 273.5 has been considered one of the leading spousal-abuse statutes in the U.S. for decades. First, it is a general intent crime and does not require specific intent to inflict a certain level of injury. Second, it allows the filing of felony spousal-abuse charges even with minimal injury (defined as "traumatic condition") if the relationship between the victim and the offender falls within the categories covered by the statute: spouse, former spouse, cohabitant, former cohabitant, or the mother or father of his or her child. Section 273.5(d) defines "traumatic condition" as "a condition of the body, such as a wound or external or internal injury, whether of a minor or serious nature, caused by a physical force." Finally, section 273.5(a) provides for an upper term of four years in state prison, excluding other statutory enhancements that may apply.

California courts have consistently upheld felony convictions under section 273.5 even if there are minimal internal or external injuries.[3] This made amending section 273.5 the perfect approach to enhancing consequences for non-fatal domestic violence strangulation assaults in California. The Legislature explained the amendment to section 273.5: "This bill, the Diana Gonzalez Strangulation Prevention Act of 2011, would specify that 'traumatic condition' includes injury as a result of strangulation or suffocation and defines the terms 'strangulation' and 'suffocation' for those purposes."[4]

Pursuant to section 273.5(d):

> As used in this section, "traumatic condition" means a condition of the body, such as a wound, or external or internal injury, including, but not limited to, *injury as a result of strangulation or suffocation*, whether of a minor or serious nature, caused by a physical force. For purposes of this section, "strangulation" and "suffocation" include impeding the normal breathing or circulation of the blood of a person by applying pressure on the throat or neck. [Emphasis added.]

The amendment added language clarifying that strangulation is serious criminal conduct in intimate relationships and, by the very nature of the offense, causes internal and often external injuries that result in a "traumatic condition." The amendment to section 273.5 now provides clear direction to judges and juries as finders of fact in domestic violence cases when an abuser has strangled his or her partner. It also lays the foundation for a jury instruction to help guide juries in cases involving non-fatal strangulation.[5]

In most cases where a domestic violence offender strangles his partner, the offender wants the victim to know that he can kill her, and therefore, the victim will live with the knowledge of her partner's lethality day and night.[6] The abuser may not want to kill his partner or cause great bodily injury; nevertheless, when an abuser strangles an intimate partner, he is committing a serious criminal offense, often causing permanent brain damage to the victim. Therefore, the abuser must be held accountable for his conduct through the criminal justice system.

3. *People v. Silva* (1994) 27 Cal.App.4th 1160, 1166 [cert. for part. pub.]. "[Penal Code] Section 273.5 applies to 'corporal injury resulting in a traumatic condition.' ... Thus, a defendant who inflicts only 'minor' injury violates the statute." See *People v. Wilkins* (1993) 14 Cal.App.4th 761, 771 [The victim had redness about her face, and her neck and nose were sore from being hit a few times in her face.].
4. SB 430, *supra*.
5. CALJIC 9.35.
6. See *United States v. Lamott* (9th Cir. 2016) 831 F.3d 1153, 1155, citing the first edition of this manual on the nature of an offender's general intent.

In addition to charging strangulation and suffocation assaults under section 273.5, prosecutors should continue to consider charging strangulation as attempted murder, assault with the intent to cause great bodily injury, unlawful restraint, kidnapping, restraining order violations, criminal threats, assault with a deadly weapon, sexual assault, witness intimidation, animal abuse, child endangerment, and other related crimes.

Recently, the Riverside County District Attorney's Office—in addition to charging strangulation under section 273.5—also charged a defendant with torture under section 206. In *People v. Vanderwood*, the defendant repeatedly strangled his victim to the point of losing consciousness causing her to repeatedly relive the near-death experience.[7] At trial, the victim described what she thought and felt every time Vanderwood strangled her:

> "I had so much saliva in my mouth, I literally thought I was going to drown from it."
>
> "Oh my gosh. I was so scared, I literally thought I was going to die in there."
>
> "My vision was blurry. A couple of times I felt my eyes start to roll. I thought—I actually at one point thought I'm going to die and what's he going to do with my body?"
>
> "I was dizzy ... I felt my eyes kind of rolling back, getting blurry. I was thinking that's it, I'm going to die right here. Things flashed in front of my face. I was in shock. My lungs and chest hurt, because every time I took a breath in, I had no space to exhale. I couldn't exhale."[8]

Whether the ultimate offense is charged as a misdemeanor or felony under section 273.5, the statute allows criminal justice professionals to protect victims and hold abusers accountable before there is serious injury or death. Intervening early is the key. Handling each case of strangulation as if it is the last opportunity to intervene before there is a homicide is critical. Women who are strangled by their partners and survive are 750–1000 percent more likely to be killed by their partners in a subsequent assault and 800 percent more likely to suffer an attempt on their lives by their abusive partners at a later time.[9] Therefore, SB 430 has become a homicide prevention measure by allowing prosecutors to file spousal-abuse charges with a specific focus on the strangulation portion of any assault as a misdemeanor or felony before the abuser ends up killing his partner.

III. Why Should Non-Fatal Strangulation Cases Be Treated as Felonies?

There are clear reasons why strangulation assaults in domestic violence cases should have a separate felony statute, and if there is a misdemeanor element to the statute, it should only be used after it is determined that a felony cannot be filed. These reasons have been articulated during legislative hearings across the country as statutes have been passed over the last 16 years as well as numerous published and unpublished cases. Prosecutors and law enforcement professionals should be familiar with these arguments as they can help you advocate for legal changes, prosecute felonies, and help victims understanding the seriousness and lethality of strangulation assaults. These arguments can also be used in bail hearings, during plea negotiations with defense attorneys, at trial, at sentencing hearings, and with

7. *People v. Vanderwood* (2019) 2019 WL 1482459 [unpublished].
8. *Id.* at 3.
9. Nancy Glass, et al., *Non-Fatal Strangulation Is an Important Risk Factor for Homicide of Women* (2008) 35 Journal of Emergency Medicine 3: pp. 329–335, note 5 <*https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2573025/*> (accessed Aug. 31, 2020).

probation and parole officers. The following key points are separated into bullet points to make it easy for professionals to "cut and paste" into bail arguments, trial briefs, and sentencing reports.

- Strangulation is more common than law enforcement professionals realize. Studies have shown that the prevalence of strangulation victims varies from 68 percent in a study conducted in 2001 among abused women seeking medical services and/or shelter services;[10] 72 percent of abused women seeking services at a family justice center in Milwaukee;[11] and 80 percent among abused women who called Oklahoma law enforcement agencies for help.[12]
- Victims of multiple, non-fatal strangulation assaults "who had experienced more than one strangulation attack, on separate occasions, by the same abuser, reported neck and throat injuries, neurologic disorders and psychological disorders with increased frequency."[13]
- Researchers now believe that victims who are strangled multiple times are also at the highest risk of being killed and suffering long-term consequences.[14]
- In one analysis based on a Chicago study, almost half of all domestic violence homicide victims had experienced at least one episode of strangulation prior to a lethal or near-lethal violent incident. Victims of one episode of strangulation are 750 percent more likely to be a victim of murder by the same partner and 800 percent more likely of becoming an attempted homicide victim at the hands of the same partner.[15]
- Even given the lethal and predictive nature of these assaults, the two largest non-fatal strangulation case studies ever conducted to date in the United States found that most cases lacked physical evidence or visible injury of strangulation. In our 2001 San Diego study involving 300 police reports, only 50 percent of the victims had visible injuries to the neck with only 15 percent of those injuries being sufficient enough to photograph.[16] In the 2016 Brevard County, FL study involving 591 police reports, only 50 percent of the cases involving explicit strangulation had visible neck injuries.[17]
- Strangulation is more serious than law enforcement professionals have realized. Loss of consciousness can occur within 5-10 seconds, death within 1-5 minutes depending on the circumstances, and brain damage somewhere in between[18]

10. Lee Wilbur, et al., *Survey Results of Women Who Have Been Strangled While in an Abusive Relationship* (2001) 21 Journal of Emergency Medicine 3: pp. 297–302 <https://www.ncbi.nlm.nih.gov/pubmed/11604293> (accessed Aug. 31, 2020).
11. Erin Schubert, *Hope Lives Here: Impact of the Family Peace Center* (2018) Sojourner Family Peace Center <https://bit.ly/37TMzbL> (accessed Aug. 31, 2020).
12. Whitney Bryen, "Strangulation of Women Is Common, Chilling—and Often a Grim Harbinger" (May 29, 2019) *Oklahoma Watch* <https://oklahomawatch.org/2019/05/29/539132/> (accessed Aug. 31, 2020).
13. Donald J. Smith, Jr., et al., *Frequency and Relationship of Reported Symptomology in Victims of Intimate Partner Violence* (2001) 21 Journal of Emergency Medicine 3: pp. 323–329 <https://bit.ly/2utpOhg> (accessed Aug. 31, 2020).
14. Wilbur, *Survey Results of Women*, *supra*; Bryen, "Strangulation of Women," *supra*.
15. Glass, *Non-Fatal Strangulation*, *supra*, at p. 329.
16. Gael B. Strack, et al., *A Review of 300 Attempted Strangulation Cases Part I: Criminal Legal Issues* (Oct. 2001) 21 Journal of Emergency Medicine 3: 303–309 <https://bit.ly/2HSRCyy> (accessed Aug. 31, 2020).
17. Adam J. Pritchard, et al., *Improving Identification of Strangulation Injuries in Domestic Violence: Pilot Data from a Researcher-Practitioner Collaboration* (2016) 13 Feminist Criminology 2: pp. 160–181 <https://bit.ly/2v63U4b> (accessed Aug. 31, 2020).
18. J. Stephen Stapczynski, *Emergency Medicine Reports* (2010) 31 Practical Journal for Emergency Physicians 17.

- The seriousness of the internal injuries, even with no external injuries, may take a few hours to be appreciated, and delayed death can occur days, weeks, or months later.[19]
- Because most strangulation victims do not have visible external injuries, strangulation cases are often minimized or trivialized by law enforcement, medical, advocacy, and mental health professionals.[20]
- Even in fatal strangulation cases, there is often no external evident injury (confirming the seriousness of non-fatal, no-visible-injury strangulation assaults).[21]
- There is consensus among national and international legal and medical experts, research, statutes, and case law that manual and/or ligature strangulation is lethal force and can cause serious bodily injury and/or pose substantial risk of death.[22]
- Leading forensic pathologists have now determined that even homicides in strangulation assaults have not been identified at the scene of the crime as a result of poor crime-scene investigation (no photos, interviews, or trace evidence) and misidentification of some cases as a drug overdoses.[23]
- When non-fatal strangulation is minimized by professionals, it sends the wrong message to victims and perpetrators, resulting in inadequate investigations, cases being reduced to misdemeanors or dismissed, inadequate medical attention and/or diagnosis, risk assessment, and safety planning.[24]
- Strangulation is a unique crime and is now being considered as the equivalent to waterboarding and torture.[25] It has more in common with sexual assault crimes than basic assault or battery crimes, it may not have injuries, it is personal in nature, and it requires special investigation and documentation.
- The inability to get oxygen is one of the most terrifying events a person can endure. The body has an automatic reaction to being deprived of oxygen and blood to the brain. It knows it is about to die if it does not change the situation immediately, leading to an escalation of the violence by the victim.[26]

19. Dean A. Hawley, et al., *A Review of 300 Attempted Strangulation Cases Part III: Injuries in Fatal Cases* (2001) 21 Journal of Emergency Medicine 3: pp. 317–322 <*https://www.jem-journal.com/article/S0736-4679(01)00401-2/fulltext*> (accessed Aug. 31, 2020).
20. Gael B. Strack and Casey Gwinn, *On the Edge of Homicide: Strangulation as a Prelude* (Fall 2011) 26 Criminal Justice 32 <*https://bit.ly/2ZN9vJs*> (accessed Aug. 31, 2020)
21. Hawley, *A Review of 300 Attempted Strangulation Cases Part III*, *supra*.
22. Law Commission (New Zealand), *Strangulation: The Case for a New Offence* (2016) <*https://bit.ly/2VlKumw*> (accessed Aug. 31, 2020); <*https://strangulationprevention.com.au*> (accessed Aug. 31, 2020); Heather Douglas and Robin Fitzgerald, *Strangulation, Domestic Violence and the Legal Response* (2014) 36 Sydney Law Review 2: pp. 231–254 <*https://bit.ly/2Tc3UYl*> (accessed Aug. 31, 2020); Catherine Porter, "It's Time to Consider a Stronger Strangulation Law" (Feb. 16, 2019) *The Star* <*https://bit.ly/3a9XS1j*> (accessed Aug. 31, 2020); *R. v. Lemmon* (2012, Canada) 524 A.R. 164.
23. Hawley, *A Review of 300 Attempted Strangulation Cases Part III*, *supra*.
24. Gael B. Strack and George McClane, "How to Improve Your Investigation and Prosecution of Strangulation Cases" (1999) <*http://www.ncdsv.org/images/strangulation_article.pdf*> (accessed Aug. 31, 2020); Kathryn Laughon, et al., *Revision of the Abuse Assessment Screen to Address Nonlethal Strangulation* (2008) 37 JOGNN 4: pp. 502–507 <*https://bit.ly/2viD8p0*> (accessed Aug. 31, 2020); Jacquelyn C. Campbell, et al., *The Danger Assessment: Validation of a Lethality Risk Assessment Instrument for Intimate Partner Femicide* (2009) 24 Journal of Interpersonal Violence 4: pp. 653–674 <*https://bit.ly/391hPqL*> (accessed Aug. 31, 2020).
25. Susan B. Sorenson, et al., *A Systematic Review of the Epidemiology of Nonfatal Strangulation, a Human Rights and Health Concern* (Nov. 2014) 104 American Journal of Public Health 11: pp. 54–61 <*https://bit.ly/2vdORVS*> (accessed Aug. 31, 2020).
26. *Id.*; *Commonwealth v. Lopez* (Pa. 2004) 854 A.2d 465.

- Domestic violence strangulation is usually about asserting control over the victim, i.e., showing that the offender has the power of life and death over the victim;[27] it is not about doing serious bodily injury (as is required by many statutes).
- Strangulation is far more cruel, inhumane, and dangerous than merely punching a person (battery). Strangulation is a cruel act with far-reaching consequences. The particular cruelty of the offense and its potential effects upon a victim, both physically and psychologically, merit its ranking as a felony.[28]
- Jurors expect to see visible injuries. But the fact that strangulation often leaves no marks, combined with its terror value, makes it a favorite tactic and weapon of choice for experienced batterers.[29]
- Due to the research on the lethal and predictive nature of strangulation assaults, national organizations such as the International Association of Chiefs of Police (2014);[30] the International Association of Forensic Nurses (2016);[31] and the Emergency Nurses Association (2016)[32] have passed position papers and resolutions to raise awareness about the seriousness and lethality of strangulation assaults. (The American College of Emergency Physicians proclamation on non-fatal strangulation is currently pending.)
- In 2008, the Abuse Assessment Screen was revised to address non-lethal strangulation due to the body of research on the seriousness of this type of assault.[33]
- Research confirms that the act of placing hands or a ligature around a victim's neck introduces a different level of lethality, rage, and brain injuries than simple assaults (e.g., pushing, punching, kicking, slapping).[34] The authors of this chapter articulate it this way: "Men who slap or punch women are abusive, men who strangle women are killers."
- Juries and judges have difficulty understanding the serious nature of the crime without clear guidance from expert witnesses, professionals with specialized training, and clear guidance in the law. *Manual strangulation is not a matter of common knowledge and is a proper subject of expert testimony.*[35]
- Effective intervention in non-homicide strangulation cases will increase victim safety, hold offenders accountable for the crimes they commit, and prevent future homicides. Communities that have adopted strangulation protocols and/or initiatives like Maricopa, Arizona; Tulsa, Oklahoma; and San Diego, California have seen drops in domestic violence homicide.[36]

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27. Pritchard, *Improving Identification*, *supra*.
28. *Johnson v. State* (Fla. 2007) 969 So.2d 938, 956–957; *State v. Rodriquez* (Ct.App.Wash. 2015) 352 P.3d 200.
29. Brett Johnson, Sweetwater County Attorney, from testimony at a House and Senate Judiciary Committee of the Wyoming Legislature regarding SF 132: Strangulation of a Household Member (2011).
30. International Association of Chiefs of Police, *Increasing the Awareness of Lethality of Intimate Partner Strangulation* (2014) <*https://bit.ly/3a54Vbw*> (accessed Aug. 31, 2020).
31. International Association of Forensic Nurses, *The Evaluation and Treatment of Non-Fatal Strangulation in the Health Care Setting* (2016) <*https://bit.ly/309pRwn*> (accessed Aug. 31, 2020).
32. Emergency Nurses Association, *An Overview of Strangulation Injuries and Nursing Implications* (2016) <*https://www.familyjusticecenter.org/resources/overview-strangulation-injuries-nursing-implications/*> (accessed Aug. 31, 2020).
33. Laughon, *Revision of the Abuse Assessment Screen*, *supra*.
34. See Ellen Taliaferro, et al., "Strangulation in Intimate Partner Violence," *Intimate Partner Violence: A Health-Based Perspective*, p. 217 (Connie Mitchell ed., 2009). See also Glass, et al., *Non-Fatal Strangulation*, *supra*, at pp. 333–334; Hawley, *A Review of 300 Attempted Strangulation Cases Part III*, *supra*, at pp. 7–8. See generally Wilbur, *Survey Results of Women*, *supra*.
35. *People v. Jackson* (2013) 221 Cal.App.4th 1222.
36. Alexa N. D'Angelo, "Maricopa County Domestic-Violence Deaths Drop After Policy Change" (Mar. 2, 2015) *The Arizona Republic* <*https://bit.ly/2HQKOSa*> (accessed Aug. 31, 2020); Bryen, "Strangulation of Women," *supra*; and Lyndsay Winkley,

IV. Language Is Important: The Crime Is Not "Attempted Strangulation"

As we gain a deeper understanding of existing strangulation laws and the need for new ones, a special point should be made. For many years, medical experts and researchers referred to strangulation assaults as "attempted strangulation." This thinking represented an inadequate understanding of the nature of the assault. Indeed, even in the seminal San Diego study we referred to "attempted strangulation" cases. The belief, though unstated in most research, was that strangulation meant death. So if a victim survived, it must not have been strangulation; it must have been "attempted strangulation." Sadly, this language is still used by some courts, professionals, and even media outlets.[37] However, it is an inappropriate way to refer to these assaults. Today, based on the current state of the law and the current research, any intentional effort to apply pressure to the neck, by any means, in order to impede airflow or blood flow should be viewed as a "strangulation assault." The perpetrator does not "attempt" the assault—the act is completed as soon as pressure is applied to the neck and blocks blood flow, airflow, or both.

Recently, the core group of prosecutors in California who wrote and implemented the strangulation and suffocation amendment to section 273.5 discussed this matter and determined that an "attempted strangulation" could occur, but it would be a highly unusual set of facts.[38] The group postulated that if an offender said to a victim that he was going to "choke her," and he lunged for her but was unable to get a strong hold with one or both hands, that this might be an "attempted strangulation." But the vast majority of strangulation or suffocation assaults are not "attempts." They are completed criminal acts and should be prosecuted based on this understanding.

V. California Case Law

Fortunately, prosecutors across California are reporting successful felony prosecutions with minimal external visible injury based on the training they have received. They are also making good use of "blind" medical experts even when the victim refuses to seek medical attention. A few sample cases (published and unpublished) illustrate the success in California since the statute took effect.

A. Published Cases: Post-Strangulation Statute

People v. Sexton is the only published case concerning strangulation under section 273.5.[39] In *Sexton*, the defendant was convicted in the Superior Court of Riverside County for attempted spousal rape and domestic violence, including strangulation. In this case, there was a history of uncharged domestic violence dating back to 2007; by July 2014, the victim had enough and wanted a divorce. From July 2014 to February 2015, the defendant had threatened the victim with a gun, threatened to kill her, and repeatedly assaulted, strangled, and sexually assaulted her. But the victim did not report any of the violence until February 2015 when she finally

"Domestic Violence Homicides Fall; Measures Addressing Strangulation Given Partial Credit" (Oct. 3, 2018) *The San Diego Union-Tribune* <https://bit.ly/2vgNd5R> (accessed Aug. 31, 2020).

37. See Editorial Board, "Maryland Should Crack Down on Strangulations," *The Washington Post* (Apr. 2, 2012) <https://wapo.st/2Pq9kxH> (accessed Aug. 31, 2020).

38. The Training Institute on Strangulation Prevention and the California District Attorneys Association, Strangulation Working Group Conference Call (Dec. 27, 2011) [on file with the Institute].

39. *People v. Sexton* (2019) 37 Cal.App.5th 457.

left the defendant and took the children with her. Once the violence was reported, the sheriff's department investigated and submitted multiple charges for prosecution. By April 2015, the victim recanted and wanted the charges dropped, but the district attorney's office refused.

At trial, the prosecution called many witnesses, including the children, an expert to testify about domestic violence dynamics, and three prior girlfriends and/or ex-wife to testify about prior abuse. The defendant testified on his own behalf. He admitted to prior abuse with other women but essentially denied any abuse toward his current wife and victim in the case. The jury found the defendant guilty on most counts. The court found the allegations of one of the defendant's prior strikes true and struck the other. On appeal, the defendant raised multiple issues, including the jury instruction related to the admission of expert testimony, uncharged prior domestic violence, his prior conviction, and his consecutive sentencing.

Relevant to expert testimony concerning victims of intimate partner violence, the court held that in domestic violence cases, jurors may expect a victim of a serious crime to report the incident as soon as possible and view a significant change in the story as evidence of untruthfulness. But as the expert in the case discussed, victims of intimate partner battering often act in ways that contrast with the actions of victims of other serious crimes. With that in mind, the jury would have a more accurate reference for how to judge the victim's behavior and the consistency of the testimony.

Relevant to strangulation under section 273.5, the Court of Appeal found that the bruising on the victim's neck described as "very faint" and "not very visible" by a co-worker was sufficient for a traumatic condition. The judgment was ultimately reversed in part with directions to strike the prior serious felony enhancement relating to an Arizona robbery as a strike and a serious felony enhancement; reconsider the sentence for the remaining prior serious felony enhancement in light of SB 1393; stay the sentence on either count three (strangulation) or count four (hair pulling); and re-sentence as to all counts.

Prior to *Sexton*, the leading cases have been:

- ***People v. Covino* (1980) 100 Cal.App.3d 660**, where the force of the defendant's assault by strangulation was likely to produce a serious injury although the victim only had *redness to her neck and pain to her throat* under section 245.
- ***People v. Beasley* (2003) 105 Cal.App.4th 1078**, *where the victim had been beaten with a rod on three separate occasions causing bruising*. Although the assault did not involve strangulation, the court found that *bruising* constituted a traumatic condition and that there was sufficient evidence to support the defendant's felony conviction for that incident. However, as to the other incidents, the victim did not testify to any injury and there were no other witnesses who had observed injuries.

Often cited by the defense is *People v. Abrego* (1993) 21 Cal.App.4th 133 [cert. for part. pub.], where the defendant slapped or punched the victim five times to the head. At trial, the victim testified she felt no pain and was not injured or bruised. Before trial, the victim reported to police that she felt pain and tenderness where the defendant struck her. The officer did not observe any injury. *Pain* alone was held insufficient to be a traumatic condition. However, a *sore*

throat—with medical testimony—in a strangulation case proved to be sufficient evidence of a traumatic condition in *People v. Romero* (discussed below).

B. Unpublished Cases: Post-Strangulation Statute

It is recommended that local prosecutors carefully follow their cases through the appellate process. We are learning that California, like many other states, has many excellent unpublished strangulation appellate court decisions that could help police, prosecutors, defense attorneys, judges, and probation officers make important rulings and decisions. Under California Rules of Court, rule 8.1115(a), "an opinion of a California Court of Appeal or superior court appellate division that is not certified for publication or ordered published must not be cited or relied on by a court or a party in any other action." Rule 8.1115(b) offers the following exceptions:

> (1) When the opinion is relevant under the doctrines of law of the case, res judicata, or collateral estoppel; or
>
> (2) When the opinion is relevant to a criminal or disciplinary action because it states reasons for a decision affecting the same defendant or respondent in another such action.

In order for judges to make intelligent and informed decisions, it would seem appropriate for prosecutors to make judges aware of unpublished cases from California or from other states that are directly on point and would assist the judge in making a ruling in a new area of the law. Although unpublished cases are not binding, they are still helpful.

- ***People v. Allen* (2011) 2011 WL 917851**, *where symptoms of strangulation corroborated with medical treatment and medical expert testimony were sufficient for a traumatic condition*. The defendant was convicted for assaulting his former live-in girlfriend under sections 273.5, 245, and 422. He was sentenced to six years and eight months, and conviction was upheld on appeal. The victim reported having a sore throat, tenderness, difficulty talking, and trouble swallowing. The victim sought medical attention three days later and police were called to the hospital. The officers observed scratches and bruising on her forehead, left knee, calf, and left arm. The victim reported that the defendant threatened to kill her, pushed her to the ground, and then strangled her. Based on the victim's medical history, the attending ER physician ordered an X-ray and testified that the victim had an injury to the cartilage even though the injury did not and would not show up on an X-ray. However, the symptoms were consistent with strangulation.
- ***People v. Romero* (2011) 2011 WL 322393**, *where a sore throat corroborated by medical expert testimony was sufficient for a traumatic condition*. The defendant put his hand around the victim's neck and squeezed, causing her to almost stop breathing. The next day she reported having a sore throat. Dr. Marie Russell, a former police officer and current emergency room doctor, testified as an expert witness. She testified that strangulation can lead to death because it cuts off the flow of oxygen to the brain. Internal injuries caused by strangulation include hemorrhages in the neck muscles, hemorrhages around the carotid artery and jugular vein, fractures of the tiny bones of the neck, and bruising to the cartilage. Symptoms of strangulation include a hoarse or raspy voice, sore throat, or nausea. A person

who survives strangulation may have mild symptoms or none at all. The nature of symptoms would depend on the exact extent to which the person was strangled; in other words, a person who is strangled to the point of unconsciousness would likely have more severe symptoms. The absence of external bruising does mean strangulation did not cause internal injuries. In Dr. Russell's opinion, strangulation is a traumatic condition that can cause great bodily injury and death. Surviving victims of strangulation often do not realize how significant their injuries are. In addition, the responding officer saw red marks on the victim's neck. Given all the above, the appellate court held that there was sufficient evidence of a traumatic condition.

- ***People v. Brown* (2013) 2013 WL 180234**, *where symptoms of strangulation corroborated with scratches and medical expert testimony was sufficient for great bodily injury*. The defendant was convicted of sections 273.5 and 245(a)(1) for strangling his live-in girlfriend. The court found his prior convictions as true but struck one of the two prior strikes. The defendant appealed the admission of prior propensity evidence where he strangled his wife to death in 1990 and insufficient evidence to prove great bodily injury. After an argument, the defendant strangled the victim until she could not breathe. The victim called 911 and reported feeling dizzy, thinking she was going to die and begging the defendant to stop. While she said her neck hurt, she refused medical attention. When officers arrived, she was emotionally upset and crying. She again reported that the defendant had strangled her in the closet. The officers observed scratch marks to the neck and an odor of alcohol on the victim but no slurred speech or trouble walking. At trial, the victim recanted.

  The prosecution called pathologist Dr. Steven Campman as an expert to explain that the victim's symptoms were all consistent with strangulation. *He explained that impeding the flow of blood from the brain or air to the lungs during an act of strangulation can cause a person to become dizzy, lose consciousness, and die. Dizziness can occur in as little as 10–15 seconds and continued pressure on the neck for minutes can cause death. Strangulation can also cause brain damage*. The appellate court found the following evidence of great bodily injury: the size difference between the defendant and the victim; the victim reported that he wrapped both of his hands around her neck and squeezed "really hard"; she was unable able to breathe; she reported feeling dizzy and thinking she was going to die; and she had scratches on her neck. The fact that the victim did not suffer more harm was immaterial according to the court citing to *People v. Covino* (1980) 100 Cal.App.3d 660.

- ***People v. Mercado* (2013) 2013 WL 4774721**, *where symptoms of strangulation, including urination, bruises to the neck, and medical testimony were sufficient for a traumatic condition even without medical treatment*. The defendant was convicted of assaulting his girlfriend and sentenced to five years. The victim had a restraining order against the defendant. The defendant went to her house and within five minutes began assaulting her. The victim ran from the house and called 911. She reported that her ex-boyfriend "beat the shit out of me again today." The victim reported that he threatened her and hit her. She also reported that the defendant put his hands around her neck and started strangling her. She began seeing stars and darkness. She also urinated. The victim changed her pants before officers arrived. The officer described the victim as having been crying, her eyes red, and still shaking. She had bruises on her neck, a lump on her forehead, and smelled like urine. The officer also

talked to the defendant who admitted to having an argument with the victim but denied any physical altercation. The defendant had no visible injuries. Gloria Davis, a project manager of the SART at the Riverside County Regional Medical Center, testified that urination is consistent with strangulation.

- ***People v. Tyree* (2013) 2013 WL 4477874**, *where symptoms of strangulation, including a sore throat, difficulty swallowing, and a stiff neck, coupled with the testimony of the examining forensic nurse were sufficient for a traumatic condition*. The defendant was convicted of assaulting his former live-in girlfriend under sections 273.5 and 245 and resisting arrest. The defendant had two prior convictions for attempted robbery, and the court sentenced him to prison under the Three Strikes Law for 25 years to life. There was a history of violence between the parties. The defendant wanted to reconcile. The victim said "no" causing the defendant to get upset. He then grabbed her by the neck from behind, threw her on the coach, and strangled her. Then he threatened to kill her. The defendant pressed so hard she could not breathe. The defendant also forced the victim to have intercourse. The victim's daughter called the police. The defendant admitted that he "squeezed" her neck, hard enough to "keep her from yelling." When officers were attempting to arrest him, he resisted. It took five officers to handcuff him. The victim was then examined by a forensic nurse who observed red marks under both eyes, a scratch on her face, limited range of motion in her neck, a little redness to her neck, drooling because she could not swallow, and a reported sore throat. The stiffness to the neck lasted about a week and the sore throat lasted months. It hurt to swallow water and she could not eat solid food for weeks. She continued to feel pain for four months. The court held that the evidence was sufficient for a traumatic condition.
- ***People v. Lopez* (2015) 2015 WL 7717245**, *where pushing and strangling the victim causing neck pain and redness to the throat were sufficient for a traumatic condition even without visible injury, no medical treatment, and no expert testimony*. The defendant was convicted of assaulting his girlfriend under sections 273.5 and 245(a)(1). He had three prior strike convictions, three prior serious felony convictions, and had served a prior prison term. The court struck two priors and sentenced him to 19 years. When the police responded to the 911 call, the victim reported that the defendant pushed her against the refrigerator, causing her to hit her head and back and then he choked her with both hands. When she tried to leave, he threatened to slash her tires and lunged at her with the knife. She had a lacerated right thumb, redness around her throat, and complained of pain to the head, neck, and back. At trial, the victim recanted, but the jurors heard a recorded jail call where the victim repeated what happened. On appeal, the defendant argued that redness and pain was insufficient for a traumatic condition. The appellate court disagreed and found that pushing and strangling a victim can result in an internal injury, resulting in a traumatic condition manifested by a concussion; head, neck, or back pain; or a sore throat.
- ***People v. Jones* (2016) 2016 WL 2868702**, *where a momentary loss of consciousness was sufficient to support a traumatic condition and serious bodily injury, even without medical treatment and no expert testimony*. The defendant was convicted of sections 273.5 and 245(a)(4) for strangling his fiancée multiple times. On appeal, he alleged insufficient evidence of a traumatic condition. During an argument in the car, the defendant grabbed the victim's throat and put his hand over her mouth while she was driving. The victim begged

him to stop or they would crash and both die. But he continued to strangle her until she felt like passing out. She saw white spots and her vision went dark. She felt her body go limp and her foot slip off the pedal. She tried to scream for help. The defendant also bent one of her fingers back as if to break it. Bystanders tried to help by trying to pull him off of her and even spraying the defendant with pepper spray, but he continued to apply pressure to her neck. Eventually, they pulled him off and restrained him until police arrived. Everything was recorded on a police body camera. The victim was upset, distraught, crying, and in pain. Paramedics arrived at the scene and provided her an icepack. The Court of Appeal reiterated that the plain language of section 273.5 makes clear that even a minor injury is sufficient to satisfy the statutory definition, and courts have defined traumatic condition as "a wound or other abnormal bodily condition resulting from the application of some external force." *Losing consciousness due to strangulation may clearly be considered an "abnormal bodily condition" resulting from external force, even if it is momentary*. Such a finding is consistent with serious bodily injury, which includes loss of consciousness.

- ***People v. Solis* (2016) 2016 WL 5404085**, *where redness to the neck was sufficient for a traumatic condition* where independent witnesses saw the defendant dragging the victim out of the house by her hair, throwing the victim to the ground, holding her down, kicking her three or four times, calling her names, strangling her, and hitting her while she was on the ground. The victim had a bruise on her face, a red face, and redness to her collarbone. The defendant was convicted of assaulting his girlfriend under section 273.5 and admitted two enhancements, specifically a prior serious or violent felony and a prison prior. On appeal, the defendant claimed "redness" as a matter of law was insufficient for a traumatic condition. The Court of Appeal disagreed holding that a traumatic condition need not be a major or serious injury, a minor external or internal injury suffices. Redness was sufficient. (No medical treatment and no medical expert testimony were required.)
- ***People v. Netwig* (2017) 2017 WL 3887334**, *where symptoms of strangulation, including blurred vision and broken blood vessels in the eyes, bruises to the neck, and "blind" medical testimony were sufficient for great bodily injury under section 12022, even though the victim never sought medical treatment*. The defendant was convicted for numerous charges against his girlfriend, including sections 236, 273.5, 422, and 594 and sentenced to seven years and eight months. The victim went to the defendant's house after an altercation with the father of her children and his mother. An argument led to the defendant hitting the victim, holding her down on the bed making it difficult to breathe, then twisting her neck, making the victim believe he was going to break her neck. The defendant then took a cable and wrapped it around her mouth, and the back of her head and neck while threatening to kill her. The victim was able to break free and fled to her mother's house. The victim had bruises, a cut lip, a bloody mouth, bruises on her arms, a raspy voice, a sore throat that lasted for several days, and blurry vision that lasted for months. Although the victim was seen by paramedics, she refused to seek medical treatment. Three weeks later, the officer followed up with the victim. Seeing that she was still suffering from strangulation, he drove her to the hospital, but the victim did not receive treatment because of the long wait. Dr. Sheridan testified as an expert that the victim's signs and symptoms were consistent with strangulation. The defendant claimed self-defense and argued insufficiency of evidence as to great bodily injury, because the victim did not seek medical treatment. The appellate court disagreed.

These unpublished cases demonstrate that good investigations by law enforcement and the increasing use of medical experts by prosecutors even without medical treatment can result in guilty verdicts with minimal or no external visible injuries.

VI. Lessons Learned from Strangulation Statutes and Case Law Across the Country

Even as California moves forward on this journey to prevent domestic violence homicides through the investigation and prosecution of non-fatal strangulation cases under section 273.5, it is helpful to understand what is happening across the country as states implement standalone strangulation statutes, amend existing statutes to include strangulation and/or suffocation, and increase focus on these cases in the courts.

A. Bail Statutes

While California does not include strangulation as a consideration under its current bail statute, other states have included strangulation into their law. In 2015, Virginia passed a "no bail presumption" law for non-fatal strangulation cases.[40] Ohio's bail statute, called Amy's Law, passed in 2006[41] and specifically allows the judge to consider strangulation when setting bail, as does Illinois (Diane's Law in 2009),[42] Louisiana (Gwen's Law in 2014),[43] and most recently, Pennsylvania (Tierne's Law in 2018),[44] which now permits judges to use risk assessment tools at the time of setting bail and gives police officers the ability to arrest for strangulation without a warrant. Given the lethality and seriousness of strangulation, no bail has been justified in order to protect the victim and the public.[45]

B. No Requirement to Show Complete Inability to Breathe

Under California law, suffocation includes impeding the normal breathing of a person by applying pressure on the throat or neck. There is no requirement to prove the complete inability to breathe. Although California case law has not addressed this specific point, other courts across the country have ruled that there is no requirement to show complete inability to breathe.

- ***State v. Braxton* (Ct.App.N.C. 2007) 643 S.E.2d 637**, where the defendant claimed the state was required to prove that the victim had a complete inability to breathe in order to approve all the elements of strangulation. The Court of Appeal disagreed. The trial court's definition of strangulation was appropriate, and there was sufficient evidence of closed airways given that the victim testified the defendant grabbed her by the throat and put his hands over her mouth and nose making it difficult to breathe.

40. Lyndsey Raynor, "Bill Would Deny Bail in Strangulation Cases" (Mar. 1, 2015) *The Virginia Gazette* <https://bit.ly/32TGUC2> (accessed Aug. 31, 2020).
41. <https://en.wikipedia.org/wiki/Amy%27s_Law_(Ohio)> (accessed Aug. 31, 2020).
42. <https://www.abearlaw.com/articles/new-illinois-domestic-violence-law/> (accessed Aug. 31, 2020).
43. Mike Hasten, "Governor Signs Gwen's Law Domestic Violence Bill" (May 29, 2014) *The [Louisiana] Daily Advertiser* <https://bit.ly/2VxD0Nt> (accessed Aug. 31, 2020).
44. <https://bit.ly/2XN7Lxa> (accessed Aug. 31, 2020).
45. *State v. Hardy* (Vt. 2008) 965 A.2d 478; *State v. Steuerwald* (Vt. 2012) 58 A.3d 970.

- ***State v. Williams* (Ct.App.N.C. 2009) 689 S.E.2d 412, 417**, where it was affirmed that there is no requirement that the victim must say "she had difficulty breathing" in order to prove "difficulty breathing." Difficult breathing can be inferred from the facts. The victim testified she felt "the defendant was trying to crush her throat, that he pushed down with his weight on her neck with his foot, and that she thought he was trying 'to chok[e] her out' ... and that she thought she was going to die."
- ***State v. Lanford* (Ct.App.N.C. 2013) 736 S.E.2d 619**, where the defendant pulled the victim's head back with one hand while putting his other hand over the victim's nose and mouth making it difficult to breathe. The court ruled there is no need to show pressure on the trachea or closing of the windpipe to show difficulty breathing.
- ***State v. Rodriquez* (Ct.App.Wash. 2015) 352 P.3d 200**, where the defendant strangled the victim multiple times making it difficult to breathe. The victim testified she had trouble breathing. The court held there is no need to prove complete obstruction of breathing—any degree of obstruction is sufficient.
- ***Vise v. Texas* (2015) 2015 WL 575160** [unpublished], where a strangulation conviction was upheld, and the victim testified that *she felt pressure making it "a little bit" difficult to breathe*. She was unable to scream or fully breathe. The court held the prosecution only needed to show that the victim's breath or blood circulation was hindered or interfered with in some way.
- ***Marshall v. Texas* (Ct.App.Tx. 2016) 479 S.W.3d 840**, where the defendant strangled the victim with a pillow making it "difficult to take deep breaths," the court held that the victim's breath was hindered.
- ***State v. Richards* (Ct.App.Iowa 2019) 928 N.W.2d 138**, the court held that the strangulation statute does not require the state to prove the victim's breathing stopped or that the victim lost consciousness. Rather, it requires the state to prove that the defendant impeded the victim's normal breathing by applying pressure to the throat or neck. Evidence showed that the defendant caused some level of blood flow or breathing to be impeded, *although it may have only been momentarily or slight*.

C. Strangulation Poses Serious Bodily Injury and/or Substantial Risk of Death

Although the term and definition of serious bodily injury varies from state to state, since 1969, the act of strangulation has consistently been viewed as posing a traumatic injury, serious bodily injury, great bodily injury, grievous bodily harm, and/or substantial risk of death.

- ***State v. Hollowell* (Ct.App.N.M. 1969) 461 P.2d 238**, where strangling the victim to the point where breath was "practically cut off" created a high probability of death.
- ***People v. Covino* (1980) 100 Cal.App.3d 660**, where the force of the defendant's assault by strangling was likely to produce a serious injury, although the victim only had redness to her neck and pain to her throat under section 245.
- ***State v. Carpenter* (Vt. 1990) 580 A.2d 497**, where the act of strangulation can create a substantial risk of death without causing permanent physical damage, and "choking" is a

good example of such an act. It does not require a medical expert to prove that a victim is in substantial danger of death when a person is strangled to the point of passing out.

- ***State v. Bey* (N.J. 1992) 610 A.2d 814**, where strangulation is commonly understood as a form of violence designed and likely to kill a victim; hence it would ordinarily not be used by someone whose purpose was only to inflict serious bodily injury.
- ***State v. Larkin* (Ct.App.Minn. 2001) 620 N.W. 2d 335**, where someone who assaults another and causes the person to lose consciousness has inflicted substantial bodily harm.
- ***State v. Smith* (Ct.App.Ohio 2007) 2007 WL 3010383, 8** [unpublished], where the court stated, "It is hard to fathom how choking a victim to the brink of unconsciousness does not ... amount to a 'substantial' risk of death."
- ***People v. Baker* (Ct.App.Colo. 2007) 178 P.3d 1225**, where strangulation amounted to serious bodily injury when the victim was strangled manually and with a ligature causing loss of consciousness and hemorrhaging in the eyes.
- ***State v. Williams* (Ct.App.Wash. 2010) 234 P.3d 1174**, where the defendant was convicted of rape in the first-degree and second-degree assault with sexual motivation. Strangulation was sufficient force to show that the victim was forced to have sex against her will, while strangulation to the point of loss of consciousness and urination amounted to serious bodily injury.
- ***Jackson v. Commonwealth* (2011) 2011 WL 3793153** [unpublished], where the Kentucky Supreme Court held "serious bodily injury" means physical injury that creates a substantial risk of death or causes serious and prolonged disfigurement, prolonged impairment of health, or prolonged loss or impairment of the function of any bodily organ. Blacking out can constitute serious physical injury. An expert testified that blacking out involved "prolonged impairment" of the brain as well as a substantial risk of death.
- ***People v. Wade* (2012) 204 Cal.App.4th 1142** [cert. for part. pub.], where the court held loss of consciousness constituted a "serious impairment of physical condition," and is a serious bodily injury as required for the offense of battery causing serious bodily injury, *even without any showing that the injury required medical treatment*.
- ***Commonwealth v. Sicard* (Mass. 2015) 48 N.E.3d 466**, where the court held that bodily injury can be proved three ways: (1) permanent disfigurement, (2) loss or impairment of a bodily function, limb, or organ; or (3) a substantial risk of death. Strangulation amounted to the type of injury that amounted to a substantial risk of death.
- ***Ricks v. Commonwealth of Virginia* (Va. 2015) 778 S.E.2d 332**, where intentionally impeding the flow of oxygen to another person resulting in unconsciousness, however brief, constitutes a bodily injury. Even a momentary blackout caused by pressure to the neck is sufficient to constitute bodily injury. The commonwealth need not present medical testimony to prove bodily injury.
- ***Maxwell v. State of Indiana* (Ct.App.Ind. 2016) 61 N.E.3d 405** [unpublished], where the court ruled that loss of consciousness constituted a serious bodily injury.
- ***State v. Frazier* (Ct.App.Kan. 2016) 369 P.3d 341** [unpublished], where the court held there was no other reason to "choke" or wrap a wire around someone's throat except to hurt

them, badly. "Choking" is not an accidental or reckless act. It is an intentional and knowing act meant to cause great bodily harm.

- ***State v. Linder* (Ct.App.Conn. 2017) 150 A.3d 697**, where despite the lack of visible injuries, the court held there was sufficient evidence to prove strangulation where the victim had a hoarse voice, difficulty swallowing, and tenderness to the neck. There was also no need to prove every sigh and/or symptom of strangulation in order to show great bodily injury.
- ***State v. Walker* (Ct.App.Utah 2017) 391 P.3d 380**, where strangulation to the point of unconsciousness constituted a serious bodily injury.
- ***In re Naylor* (Vt. 2018) 2018 WL 372347** [unpublished], where the court held that sitting on the victim and causing difficulty breathing created a substantial loss or impairment of the function of a bodily member or organ, namely the lungs.
- ***Nagaruk v. State* (Ct.App. Alaska 2018) 2018 WL 1357351** [unpublished], where the court held that strangulation amounted to a substantial risk of death where the victim was unable to breathe and thought he was going to die.
- ***State v. Pascua* (Ct.App.Hawaii 2018) 411 P.3d 1173** [unpublished], where a severe concussion with signs of strangulation was sufficient evidence of a serious bodily injury.

D. Prosecuting Strangulation as Attempted Murder

When a victim is threatened with death and strangled multiple times—whether manually and/or with a use of a ligature—and loses consciousness, prosecutors should consider charging attempted murder. There is no reason to continue applying pressure to a limp and unconscious individual unless you intend to kill the person. Continuing to apply pressure after loss of consciousness significantly increases the chances of brain damage and/or death.

- ***People v. Andrew Vicary* (2014) 2014 WL 2109765** [unpublished], where the defendant was convicted of his wife's attempted murder under sections 166 and 187, and the victim was strangled to the point of unconsciousness, not breathing, mouth open, and eyes rolled back into her head. The defendant did not let go until an independent witness yelled at the defendant, at which point he said, "She was going to leave," and then ran off. The witness then repeatedly shook the victim and she started coughing and breathing again. The victim was transported to the hospital. The victim also presented with petechiae, slight bruising on her neck, redness in her eyes, and neck, and throat pain.
- ***Whitham v. State* (Ct.App.Ind. 2015) 49 N.E.3d 162**, where the defendant strangled the victim with a ligature until she passed out. The prosecutor argued there is only one reason you would put a ligature around someone's neck and that is to kill them. It was not an accident. It was acting with a conscious objective to kill and "close the deal."
- ***State v. Fox* (Ct.App.La. 2016) 184 So.3d 886**, where the act of strangling someone after the point of unconsciousness was a disproportionate use of force that went beyond self-defense. The act of strangling another person was indicative of a specific intent to kill.
- ***People v. Ryder* (N.Y. 2017) 146 A.D.3d 1022**, where the defendant strangled his mother until she lost consciousness and threatened to kill her, an attempted murder charge was

upheld. The victim thought she was going to die. The absence of long-term serious injury to the mother did not preclude the finding of life-threatening actions by the defendant. The court found that the defendant's actions demonstrated his intent to kill.

- ***State v. Diaz* (La. 2017) 2017 WL 3887341** [unpublished], where the victim was strangled twice, lost consciousness, had a garbage bag stuffed into her throat, and was threatened with death, strangulation was upheld as attempted manslaughter.

VII. What Is Still Needed in California?

The original version of SB 430 was a standalone felony strangulation statute, but due to California prison overcrowding in 2011, the Legislature was unwilling to create any new felony offenses.[46] Efforts were subsequently made in 2016 to make section 273.5 a standalone felony statute through the Legislature in order to track stranglers. However, those efforts were also defeated due to prison overcrowding and other bail and jail reform efforts in SB 40.[47] Nevertheless, the Legislature was successful in passing a new law that amended section 13730, referred to as the Duty to Warn and Duty to Track Law, which requires officers to warn victims about internal injuries of strangulation and the need for medical attention and advocacy. It also requires law enforcement agencies to revise their forms to track a strangler.

As California continues to uphold its commitment to domestic violence victims (as articulated in our legislative intent in 1984) to "address domestic violence as a serious crime against society and to assure the victims of domestic violence the maximum protection from abuse which the law and those who enforce the law can provide," California will need to revisit multiple statutes (as other states have done across the United States,) especially with respect to identifying the dominant aggressor, defining serious bodily injury, and outlining the specifics of medical-mandated reporting, bail considerations, the impact on pregnant victims, and sentencing parameters.

For example, under Wisconsin Section 939.22(38), "'[s]ubstantial bodily harm' means bodily injury that causes a laceration that requires stitches, staples, or a tissue adhesive; any fracture of a bone; a broken nose; a burn; a petechia; a temporary loss of consciousness, sight or hearing; a concussion; or a loss or fracture of a tooth." This code section makes it clear that signs and symptoms of strangulation clearly qualify as substantial bodily harm. Changes such as this in state law will rightfully increase the felony prosecution of non-fatal strangulation and suffocation cases. Idaho recently passed a sentencing statute requiring defendants convicted of strangulation to undergo a psychological evaluation by an evaluator approved by the Domestic Assault and Batterer Evaluator Advisory Board, to assist the judge in determining an appropriate sentence and conditions for probation under Idaho Code section 18-918(7).

VIII. Lessons Learned

A. Challenge Everyone to View Strangulation as a Felony First, Misdemeanor Second

California's strangulation law is a wobbler. It can be prosecuted as a misdemeanor or a felony. One of the greatest lessons learned since 2005, as strangulation statutes have been passed across

46. See AB 2357 Analysis, (2011–2012) [discussing Receivership/Overcrowding Crisis Aggravation in California prisons] *<https://bit.ly/2T0b2rC>* (accessed Aug. 31, 2020); see Criminal Justice Alignment, AB 109 (2011–2012).
47. SB 40 (2017–2018) Ch. 331 *<https://bit.ly/2SXY7qf>* (accessed Aug. 31, 2020).

the country, is that strangulation assaults should be presumptive felonies. Prosecutors must lead this effort. If prosecutors do not treat these cases as serious felonies, police officers, medical professionals, advocates, and survivors will not treat them seriously either. A good example is the New York statute passed in 2010, which also was a wobbler.[48]

The New York statute created a strangulation crime that can be prosecuted as a misdemeanor or a felony, but statistics show that most cases are being prosecuted as misdemeanors.[49] A number of reasons have been postulated for this, but New York's results appear similar to many other states with new statutes. The lessons learned from this national trend should challenge all states to:

1. Include a directive from the state for prosecutors to treat these cases as presumptive felonies.
2. Create an implementation plan.
3. Provide ample resources for prosecutors
4. Make prosecutor training immediately available.
5. Enact a concerted effort to create a team of experts to testify in court in all cases.

Without these efforts, most strangulation cases will continue to be filed as misdemeanors, and the outcomes at trial and accountability for offenders will be unimpressive across the country.

In addition to New York, many states have difficulties in effectively implementing their laws. In 11 jurisdictions in Massachusetts, it was reported that more than 70 percent of defendants charged with felony strangulation assaults avoided convictions.[50] In Austin, Texas, the *Austin American-Statesman* conducted an analysis of cases in Travis County and found that most felony domestic violence defendants had their charges reduced or dismissed. Nearly half of the defendants involved had previously been accused of felony family violence.[51] In Iowa, the *Register* found more than one-third of non-lethal strangulation charges in domestic cases had been dismissed and another 38 percent were reduced to misdemeanors.[52] In some jurisdictions, prosecutors outright refuse to prosecute serious cases of domestic violence and non-fatal strangulation unless the victim fully agrees to "prosecute" or "press charges" regardless of the evidence obtained by police investigations.[53] It takes hard work to pass a new law. It takes even more work to implement a new law effectively.

48. Julie Besonen, "A New Crime, But Convictions Are Elusive" *New York Times* (Feb. 16, 2013) <*https://nyti.ms/2PnH7aU*> (accessed Aug. 31, 2020).
49. *Id*. See also Krista Madsen, "Gorski's Death Highlights New York's Recent Strangulation Law" (Jan. 18, 2013) *Patch* <*https://bit.ly/38ZW1f5*> (accessed Aug. 31, 2020); Andrew Wheeler, *Arrests and Arraignments Involving Strangulation Offenses Nov. 11, 2010–June 30, 2012* (Sep. 2012) New York State Division of Criminal Justice Services, Office of Justice Research & Performance <*http://www.criminaljustice.ny.gov/pio/research-update-strangulation-apr2012.pdf*> (accessed Aug. 31, 2020).
50. Maria Papadopoulos, "New Domestic Violence Law Yielding Few Convictions" (Jul. 14, 2015) *Enterprise News* <*https://www.strangulationtraininginstitute.com/new-domestic-violence-law-yielding-few-convictions/*> (accessed Aug. 31, 2020).
51. Jazmine Ulloa, "New Laws, Same Old Cycle" (Jun. 29, 2016) *Austin American-Statesman* <*http://specials.mystatesman.com/domestic-violence-cycle/*> (accessed Aug. 31, 2020).
52. Kathy A. Bolten, "'This Is How I'm Going to Die.' Strangled by a Loved One." (Jun. 25, 2017) *Des Moines Register* <*https://www.desmoinesregister.com/story/news/2017/06/25/domestic-abuse-strangulation-iowa/395457001/*> (accessed Aug. 31, 2020).
53. Casey Gwinn and Anne O'Dell, *Stopping the Violence: The Role of the Police Officer and the Prosecutor* (1993) 20 W. St. U.L.Rev. 297 <*http://www.ncdsv.org/images/StoppingViolence.pdf*> (accessed Aug. 31, 2020); *National Domestic Violence Best Practices Guide* (July 17, 2017), prepared by Alliance for HOPE International and the National Women Prosecutors Section, pp. 14–16 <*https://bit.ly/32or16a*> (accessed Aug. 31, 2020).

B. Develop Multidisciplinary Teams and an Implementation Plan for Your County

It takes time to implement laws and rarely are there formal implementation plans in a state or county. Implementation usually starts with leadership. Someone needs to take a leadership role by raising this issue and assembling a multidisciplinary team (MDT) to work together to improve community response from the 911 call to the courtroom. MDTs work. Shasta County assembled one of the first MDTs in California after section 273.5 was amended.

In 2011, the Training Institute on Strangulation Prevention and the California District Attorneys Association partnered to develop such a plan when the California strangulation law finally passed. The plan included conducting multidisciplinary trainings in 15 family justice centers across the state, hosting four online video webinars for prosecutors and advocates, sending out a series of statewide Constant Contact newsletters to educate professionals about the online resources available through the Institute, developing a 30-minute online course for police officers, and publishing the first edition of this manual.[54]

The results were impressive as counties started to develop their own protocols, use specialized reporting forms, integrate strangulation training at the police academy, offer in-house training, and create new partnerships with medical professionals. The result was increased felony prosecution and conviction rates. However, for implementation plans to be effective, leadership is required and a long-term commitment to integrate it into various systems must exist. Strangulation training must be institutionalized into core training programs for all professions. It cannot be a special course that is only offered periodically. Ultimately, someone needs to champion the cause for the entire county. Prosecutors can play that key role.

In Riverside County, Assistant District Attorney Jerry Fineman has played that role by ensuring dispatchers, law enforcement officers, prosecutors, and paramedics are trained in strangulation. They have also sent law enforcement officers, prosecutors, medical professionals, and advocates regularly and consistently to the Institute's Advanced Course on Strangulation to integrate strangulation awareness into their system, develop their local investigation and documentation expertise, and identify experts to testify in court. In San Diego County, Chief Deputy District Attorney Tracy Prior has been the driving force in not only developing a countywide protocol but also implementing it. Since adopting the Strangulation Protocol in January 2017, prosecution of felony strangulation cases has increased by 40 percent with an average conviction rate of 96 percent.[55] And it is no surprise that strangulation MDTs are developing in communities where family justice centers, coordinated community responses, and MDTs already exist, including Ventura, Stanislaus, Sonoma, Napa, and Yolo counties.

54. The video webinars can be accessed from CDAA's webinar library at *https://www.cdaa.org/training/webinars/webinars-library* [member login required]. The online resources of the Training Institute on Strangulation Prevention are available at *https://www.strangulationtraininginstitute.com* (accessed Aug. 31, 2020).
55. Tracy Prior, "San Diego County's Strangulation Protocol: Improving Evidence Collection to Win the War" (2018) *The Prosecutor*, Vol. 52, No. 1: pp. 14–15.

C. Pay Attention to Unpublished Cases

It is also recommended that local prosecutors who have already received specialized training and have expertise in handling non-fatal strangulation reach out to their counterparts at the Attorney General's Office (AGO) to educate them about non-fatal strangulation. Prosecutors need to find out who has been assigned to handle the appeal in their cases and make sure they are aware of the important issues in the case and pursue publication of decisions.

In California, the attorney who tries a strangulation case is not the attorney who will be assigned to handle the case on appeal. Appeals are handled by deputies from the Attorney General's Office who generally are not specialized prosecutors in the field of domestic violence, sexual assault, or strangulation. Domestic violence cases are often randomly assigned to deputy attorneys general to ensure even workloads. Despite their special expertise in handling appellate issues, deputies within the AGO may not be aware of the unique issues related to strangulation and most likely will not easily recognize cases that deserve to be published. Given that strangulation was recently added to section 273.5 and there is only one published case, even though thousands of strangulation cases are being reported to police and prosecuted all across California, it is critical for prosecutors to identify cases that meet the following requirements of rule 8.1105(c):

(1) Establishes a new rule of law;

(2) Applies an existing rule of law to a set of facts significantly different from those stated in published opinions;

(3) Modifies, explains, or criticizes with reasons given, an existing rule of law;

(4) Advances a new interpretation, clarification, criticism, or construction of a provision of a constitution, statute, ordinance, or court rule;

(5) Addresses or creates an apparent conflict in the law;

(6) Involves a legal issue of continuing public interest;

(7) Makes a significant contribution to legal literature by reviewing either the development of a common law rule or the legislative or judicial history of a provision of a constitution, statute, or other written law;

(8) Invokes a previously overlooked rule of law, or reaffirms a principle of law not applied in a recently reported decision; or

(9) Is accompanied by a separate opinion concurring or dissenting on a legal issue, and publication of the majority and separate opinions would make a significant contribution to the development of the law.

The good news is that any person may request an unpublished decision be published, and it is fairly easy to do pursuant to California Rules of Court, Rule 8.1120. All that is required is the request be made in the form of a letter to the court that rendered the opinion, concisely stating the person's interest and the reason why the opinion meets a standard for publication. It must be

delivered to the rendering court within 20 days after the opinion is filed and served on all parties. Given that any person may request an unpublished opinion be ordered published, local advocacy organizations should also consider monitoring strangulation opinions as well. The challenge will be learning about unpublished cases and responding in a timely manner.

IX. Conclusion

Non-fatal strangulation cases are the edge of a homicide. California now has a tool with the amended language of section 273.5 to specifically charge and call out strangulation assaults. The next step in California is to pass a separate, standalone felony strangulation statute. Until that time, prosecutors in California and across the country can benefit from understanding the strengths and weaknesses of various strangulation statutes and knowing the rapidly developing case law in the United States. Prosecutors must lead the way for the criminal justice system in treating non-fatal strangulation offenses as serious crimes. If prosecutors do not lead this effort, no one else will. We have the opportunity to save the lives of women, men, children, police officers, and many others if we can successfully hold stranglers accountable for their crimes. Every prosecutor reading this manual can commit to one or more of the possible action steps below:

- Treat a non-fatal strangulation assault as a presumptive felony.
- Reach out to your law enforcement agencies and get them the training they need.
- Develop a multidisciplinary strangulation response team.
- Adopt a countywide strangulation assault protocol.
- Attend an advanced training and ensure that other disciplines do as well.
- Develop your local experts to testify, including doctors, nurses, detectives, advocates, and others.
- Train your dispatchers, doctors, nurses, paramedics, probation officers, and others.
- Raise awareness whenever you can.
- Advocate for domestic violence medical forensic examinations to ensure victims receive the medical care they need.
- Work with the medical community to bring awareness and adopt the Institute's Radiographic Imaging Guidelines for strangled patients. (See Attachment 2-1: Recommendations for the Medical/Radiographic Evaluation of Acute Adult, Non-Fatal Strangulation.)
- Pay attention to unpublished cases and advocate for publication.
- Consider developing a family justice center framework in your county to improve co-located, integrated services for domestic and sexual assault victims.

The leadership of prosecutors will help hold dangerous offenders accountable and ultimately save the lives of adult and child victims of domestic and sexual violence.

ABOUT THE AUTHORS

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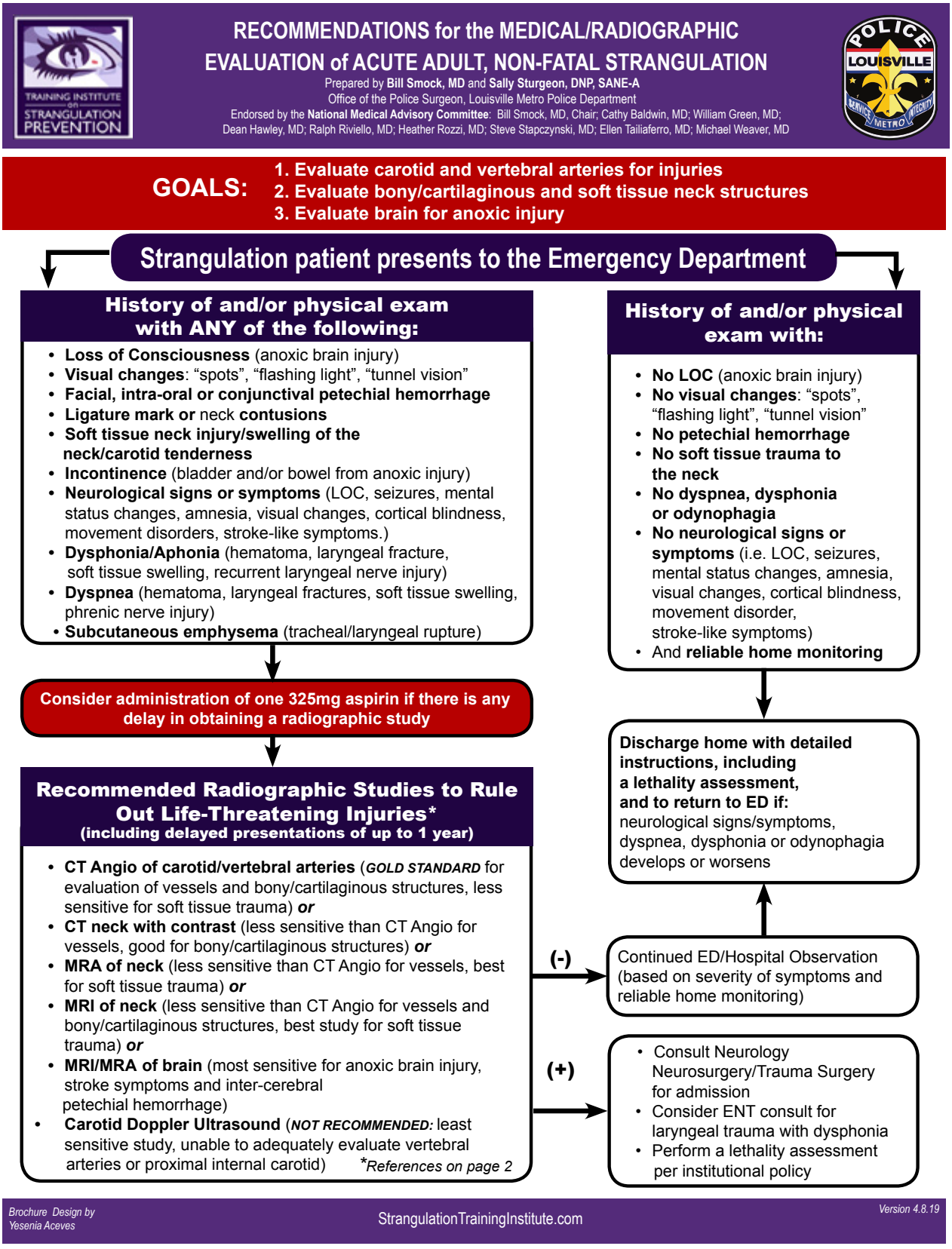
Casey Gwinn *is the president and co-founder of Alliance for HOPE International. The Alliance has five major programs: The Family Justice Center Alliance, The Training Institute on Strangulation Prevention, Camp Hope America, VOICES, and the Justice Legal Network. Casey is the visionary behind the Family Justice Center movement, first proposing the concept in 1989. He is also the founder of Camp Hope America, the first camping and mentoring program in the country for children impacted by domestic violence. Casey is a national expert on domestic violence, the impact of childhood trauma, and the science of hope. Prior to his current position, he was the elected San Diego City Attorney and served as a California prosecutor for 20 years.*

The authors continue to offer special thanks to Deputy District Attorney Melissa Mack for her contributions to the original chapter. At that time, Melissa was a law student at California Western School of Law. Today, she works in the Family Protection Unit of the San Diego County District Attorney's Office prosecuting strangulation cases.

ATTACHMENT 2-1



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This project is supported all or in part by Grant No. 2016-TA-AX-K067 awarded by the Office on Violence Against Women, U.S. Department of Justice. The opinions, findings, conclusions, and recommendations expressed in this publication/program/exhibition are those of the author(s) and do not necessarily reflect the views of the Department of Justice, Office on Violence Against Women.

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Investigating Strangulation Cases

Gael B. Strack, J.D.
Detective Michael Agnew (Ret.)
Detective Joshua Helton
Detective Bill Hernandez

"You're gonna die."

"How does it feel to know that you're not going to live anymore?"

"Shut up and kiss me if you want me to stop hitting you."

"I'm going to kill you."

"You're not going to live after tonight."

"I really thought I was going to die; actually, I was pretty sure I wasn't going to live."

"I asked him if I could use my cell phone to call my family and say goodbye, but really I was going to call 911."

— Keshia, Strangulation Survivor from Napa, California
[Suspect currently serving a prison sentence.]

Editor's Note: Although CDAA always strives to be gender-neutral, strangulation is a very gendered crime. In an effort to not misrepresent this, victims in this manual are referred to as female, while the defendants are referred to as male unless otherwise noted.

I. Introduction

Police departments across the country receive a constant stream of 911 domestic violence calls every day where victims report being threatened, pushed, slapped, kicked, punched, choked, stabbed, or even shot. Some agencies report that 40 percent of all 911 calls are related to domestic violence. By the time officers respond, victims may already be recanting, minimizing, or simply unaware of the seriousness of their assault, especially if strangulation is involved. In addition, victims may be traumatized by the incident, embarrassed, or afraid of the abuser or the police.

In the past, "choking" cases were often minimized by victims, police officers, prosecutors, judges, and medical personnel. The lack of visible injury and inadequate training caused the entire criminal justice system to treat non-fatal strangulation and suffocation cases as minor assaults with little or no consequence.[1]

1. Gael B. Strack, et al., *A Review of 300 Attempted Strangulation Cases Part I: Criminal Legal Issues* (2001) 21 Journal of Emergency Medicine 3: pp. 303–309 <*https://www.sciencedirect.com/science/article/abs/pii/S0736467901003997*> (accessed Aug. 31, 2020).

Today, it is understood that strangulation is one of the most lethal forms of domestic violence: Unconsciousness may occur within seconds, death within minutes, and brain damage somewhere in between.[2] Victims are often threatened with death while they are being strangled, and many believe they are going to die. Victims may have no visible injuries whatsoever; yet because of underlying brain damage caused by the lack of oxygen during the strangulation assault, they may have serious internal injuries or die days or even weeks later. These factors make any investigation of domestic violence cases, especially strangulation cases, challenging. When domestic violence perpetrators use strangulation or suffocation to assault their victims, it is most likely a felonious assault and should be treated as such by police officers, prosecutors, medical personnel, and other professionals involved in response and prevention.

Strangulation is one of the best predictors for the subsequent homicide of domestic violence victims. One study showed that compared to other causes of homicide, the odds of death increase by about seven-fold for women who are strangled by their partner.[3] Strangulation is also a culturally sensitive issue. The same study showed African-American women, as compared to Caucasian women, had increased odds of experiencing attempted and completed homicide. A meta-analysis of 17 studies on intimate partner homicide between 1995 and 2016 also concluded the presence of a strangulation assault within an intimate relationship meant the victim was over 750 percent more likely to later be killed by her abuser.[4] The same study also concluded that when the abuser had direct access to a firearm, the victim's odds of being murdered increased more than 1100 percent.

The finding of an increased homicide risk due to firearms access is also supported in other research on intimate partner homicide. When considered together, these findings should encourage law enforcement agencies and district attorney's offices to thoroughly investigate and prosecute strangulation assaults. Measures should also be taken to secure an abuser's firearms, which enhances the safety of victims and prevents homicides. In 2006, there were 141 domestic violence homicides in California and over half involved firearms. In response, the San Mateo County Domestic Violence Council partnered with local law enforcement agencies to develop a protocol to take firearms away from domestic violence offenders and in 2007, the sheriff's department launched a Domestic Violence Compliance Unit.[5] The purpose of the protocol was to track, investigate, and enforce domestic violence protective court orders and when appropriate, seize and store firearms surrendered or confiscated from persons subject to court-ordered firearms prohibition. Research has suggested that these efforts are effective.[6]

This chapter focuses on the challenges of investigating a non-fatal strangulation case, discusses the core components for improving a strangulation investigation, reviews new tools, and provides practical tips

2. Adam J. Pritchard, et al., *Nonfatal Strangulation as Part of Domestic Violence: A Review of Research* (Dec. 2015) 18 Trauma Violence & Abuse 4: pp. 1–18 <*https://journals.sagepub.com/doi/abs/10.1177/1524838015622439*> (accessed Aug. 31, 2020).
3. Nancy Glass, et al., *Non-Fatal Strangulation Is an Important Risk Factor for Homicide of Women* (Oct. 2008) 35 Journal of Emergency Medicine 3: pp. 329–335 <*https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2573025/*> (accessed Aug. 31, 2020).
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5. San Mateo County Sheriff's Office, *Domestic Violence Firearms Compliance Program Protocol* (2008) <*https://www.bwjp.org/assets/documents/pdfs/dv-firearms-protocol.pdf*> (accessed Aug. 31, 2020).
6. April M. Zeoli, *Domestic Violence and Firearms: Research on Statutory Interventions, The Battered Women's Justice Project* <*https://bit.ly/2vqzNog*> (accessed Aug. 31, 2020).

for handling a strangulation case for dispatchers, first responders, detectives, and investigators working in any California law enforcement jurisdiction.

II. The Investigation

In *Davis v. Washington,* the United States Supreme Court recognized that domestic violence cases are "notoriously susceptible to intimidation or coercion of the victim to ensure that she does not testify at trial."[7] Researchers have also documented that victims will recant up to 90 percent of the time. Given this fact, the mindset of all domestic violence responders should mirror the philosophy of the prosecutor: "How can we prove this case without the participation of the victim?"

EVIDENCE-BASED INVESTIGATIONS

- Work to minimize the need for survivor involvement in the prosecution.
- Prove the offender's conduct.
- Find the evidence at the scene and during the follow-up investigation.

Successful prosecution of domestic violence cases hinges on the collection of evidence. The entire investigation will vary greatly depending on the focus of the case: Is the focus on the victim or is it on proving the abuser's conduct? Generally, if the victim is the crux of the case, testimony will be the primary evidence obtained. In such cases, little effort may be made to identify and collect corroborating evidence. This traditional approach will not lead to aggressive prosecution and effective intervention in domestic violence cases. On the other hand, if the entire case focuses on proving the offender's conduct, the investigation will move beyond the victim's testimony and lead to a stronger case supported by independent corroboration. This ideal is the core of the evidence-based investigation concept.

A. A Duty to Warn and a Duty to Track

Legislation in California, as in many states, has directed police agencies to define guidelines for arrest practices and protocols related to investigating domestic violence cases. California's laws include mandatory arrest, collection of evidence, report writing, referrals for victim assistance, emergency protective orders, notice of the defendant's release from custody, and much more.[8] Mandatory or pro-arrest policies play a critical role in relation to victim safety and thorough case investigation. Arrest not only acknowledges the criminal behavior, but provides immediate safety for the victim and heightens the likelihood of a provable case. Senate Bill 40 modified Penal Code sections 13701 and 13730, effective January 1, 2018, to require law enforcement agencies to document in crime reports any incident of domestic violence-related strangulation or suffocation.[9] The law also mandated that law enforcement officers warn victims of the danger of strangulation and advise them to seek immediate medical treatment.[10] Law enforcement must now track these cases and include data on domestic violence-related strangulation and

7. *Davis v. Washington* (2006) 547 U.S. 813, 833.

suffocation events in their monthly reports to the Attorney General on domestic violence-related crimes.[11]

B. Specialized Forms and New Protocols

Most law enforcement protocols today have developed specialized domestic violence reporting forms or checklists. In those jurisdictions using a law enforcement protocol to investigate domestic violence cases,[12] officers arriving at the scene conduct a thorough investigation and prepare written reports describing all incidents of domestic violence involving the victim and perpetrator, as well as documenting all domestic violence crimes committed by the perpetrator. San Diego County has developed the first countywide protocol on non-fatal strangulation in California along with the most updated specialized reporting form for strangulation cases. (See Attachment 3-1: San Diego County's Strangulation Protocol and Strangulation Documentation Form.) The International Association of Chiefs of Police (IACP) has also developed tools to assist law enforcement with improving their investigative response, including: (1) the IACP Strangulation Self-Assessment; (2) the IACP Response to Strangulation Checklist; (3) the IACP Roll Call Training Card; and (4) the 2014 Resolution, Increasing the Awareness of the Lethality of Intimate Partner Violence.[13]

C. Risk Assessment Tools

Some jurisdictions across the country conduct lethality assessments as part of their domestic violence investigation. Many jurisdictions have now adopted the *Lethality Assessment Program: The Maryland Model* (LAP).[14] The LAP was created by the Maryland Network Against Domestic Violence (MNADV) in 2005. The LAP is an innovative prevention strategy to reduce domestic violence homicides and serious injuries. It provides an easy and effective method for law enforcement and other community professionals to identify victims of domestic violence who are at high risk for being seriously injured or killed by their intimate partners. The LAP immediately connects victims to the domestic violence service provider in their area. The results of such assessments are intended to help investigators, prosecutors, and court staff make better-informed decisions regarding investigation, bail enhancement, and charging of domestic violence cases.

D. Risk of Minimizing Strangulation Cases

One of the obstacles for officers is that strangulation takes place between people who are (or were) in an intimate relationship. Because of that emotional bond, the fact that they have children together, or because they live in the same house, officers may downplay what is happening. They probably have been to the house before. They probably have talked to this

11. Pen. Code § 13730(a).
12. San Diego County, *Domestic Violence and Children Exposed to Domestic Violence Law Enforcement Protocol* (2008) <*https://bit.ly/2VGU4AD*> (accessed Aug. 31, 2020); Robert T. Jarvis, *A Proposal for a Model Domestic Violence Protocol* (2001) 47 Loy.L.Rev. 513 <*https://bit.ly/39mr5FY*> (accessed Aug. 31, 2020).
13. <*https://www.theiacp.org/projects/police-response-to-violence-against-women-vaw*> (accessed Aug. 31, 2020).
14. Maryland Network Against Domestic Violence, *Lethality Assessment Program: The Maryland Model* (2015) <*https://www.mnadv.org/lethality-assessment-program/lap-program-overview/*> (accessed Aug. 31, 2020).

couple before. They may have had this victim recant and minimize prior investigations they conducted. Officers may become very frustrated with this behavior. Also, without medical training, law enforcement officers may not necessarily view strangulation as one person trying to end another person's life; they may view it as a non-consequential "domestic disturbance" between a couple or a simple assault.

When someone is lying on the floor with an open, bleeding wound, has been shot, or is deceased, it is easy to gauge the seriousness of the crime. It is much more difficult to grasp the significance of the victim's statements that she was "choked," especially when the victim is standing without difficulty, talking freely to police or investigators, and has no visible external injuries. To many law enforcement professionals, it is just another family disturbance.[15] However, it is critical for law enforcement and prosecutors to have more than just a basic understanding of strangulation; they need to understand the internal and external signs and symptoms of a victim who has been strangled. (See Chapter 5: Medical and Forensic Evaluation in Non-Fatal Strangulation Cases.) The latest research from Alliance for HOPE International has also found that minimizing domestic violence strangulation cases may put officers' lives at risk.[16] Men who strangle women are the majority of all cop killers in the United States, and there is a complex relationship between men who strangle women—who are evidencing what former San Diego City Attorney Casey Gwinn calls a "loaded God-complex"—and men who kill police officers when confronted with entitled law enforcement authority.[17] In 2017, 33 out of 44 law enforcement officers killed in the United States in intentional homicides were killed by men with a history of domestic violence, including strangulation assaults against their intimate partners.[18] Minimizing strangulation cases puts law enforcement officers at risk.

E. Language Is Important

Special attention should be paid to vocabulary. While most victims will continue to report they were "choked" or grabbed by the neck—and it is important to use words the victim is most comfortable using—responders need to acknowledge the seriousness of the abuse that actually occurred. "Choking" is accidental. "Strangulation" is intentional. Choking means having your windpipe blocked entirely or partly by some foreign object, like food. Strangulation means to obstruct the normal breathing of a person or to inhibit the circulation of blood into or out of the brain by applying external pressure to the person's neck. For report writing, investigators should correctly memorialize the words used by the victim, preferably noting these words as direct quotes. However, officers, investigators, and other first responders should also use the proper terms, such as "strangled," "near-fatal strangulation," and "non-fatal strangulation" in their reports to accurately describe what happened to the victim. By using the correct terminology, more awareness is brought to the seriousness of the crime that has been committed. Using the proper terminology will also produce more felony prosecutions. In a 2009 study conducted in

15. Gael B. Strack, et al., *Strangulation: What We Have Learned* (2010) [DVD] <*https://www.familyjusticecenter.org/shop-now/*> (accessed Aug. 31, 2020).
16. Casey Gwinn and Chan Hellman, *Hope Rising: How the Science of HOPE Can Change Your Life* (Nov. 27, 2018) Morgan James Publishing, pp. 84–91.
17. *Id.*
18. *Id.*

Minnesota, when officers used the word "strangulation" as opposed to "choked" and described how the victim was strangled, more cases were prosecuted as felonies.[19] Using the right language will help change how the criminal justice system sees and treats strangulation assaults.

F. Felony First, Misdemeanor Second

When a victim reports being strangled, law enforcement should treat the case as a felony first and a misdemeanor second. If there is any evidence to suggest the victim was strangled or threatened, the case should be investigated as if it were an attempted homicide or aggravated assault. If the case is treated seriously from the time the 911 call is made, everyone involved, including the victim, will treat it seriously as well. In California, most prosecutors will likely charge the defendant with felony assault under Penal Code section 245(a) when it is shown that the defendant had the intent to commit great bodily injury (even if the victim had few or no visible injuries).[20] It is also appropriate in California to arrest a suspect for felony spousal abuse under section 273.5 where there is some evidence of internal injury, such as symptoms of strangulation.[21] Section 273.5(d) defines "traumatic condition," as including external or internal injuries suffered as the result of strangulation or suffocation.

III. Building a Stronger Strangulation Case

When officers respond to a domestic violence scene, and the incident includes strangulation, the victim's subtle signs and symptoms of airflow and/or blood flow being obstructed become very important. Learning how to identify, document, and understand these signs, symptoms, and/or suffocation requires special training and a special investigation. A typical domestic violence investigation begins with the 911 call and includes statements from the victim, the suspect, and other witnesses; evidence at the scene; photos; medical documentation; prior history of abuse; follow-up interviews; and a search for any new evidence. Figure 3-1 shows the investigation wheel developed by Detective Mike Agnew from the Fresno Police Department and illustrates how to build a strong domestic violence case for prosecution.

Each component of a domestic violence investigation will now be discussed, with a special emphasis on investigating a strangulation case.

A. The Emergency 911 Call

Emergency 911 recordings should be reviewed in every case prior to disposition. They accurately capture the victim's emotional state and often include: (1) statements about the incident; (2) the domestic violence history in the relationship; (3) the victim's physical condition; (4) the suspect's level of intoxication and/or use of drugs; (5) the presence of witnesses; (6) the presence of weapons; and (7) the existence of protective orders. The 911 call is a microphone into the violent incident and often records statements from children, witnesses, and/or the abuser.

19. Marna L. Anderson, *WATCH Report Part II: The Impact of Minnesota's Felony Strangulation Law* (2009) WATCH <*https://vawnet.org/material/impact-minnesotas-felony-strangulation-law*> (accessed Aug. 31, 2020).
20. *People v. Covino* (1980) 100 Cal.App.3d 660.
21. *People v. Kinsey* (1995) 40 Cal.App.4th 1621.

Figure 3-1. The Investigation Wheel by Detective Mike Agnew.

Absent a video recording of the crime occurring, the 911 emergency call is often the most graphic and powerful piece of evidence introduced to the jury at trial. A recording of the 911 call often contains "excited utterances" from the victim, which generally refer to the spontaneous statements a victim makes just seconds and minutes after the assault. Courts view spontaneous statements or excited utterances under Evidence Code section 1240 as trustworthy, reliable, and admissible as an exception to the hearsay rule. A computer-aided dispatch (CAD) printout of the 911 call will also show when the call was made, who made the call, where the call was made from, when and how many officers were dispatched, when officers arrived at the scene, whether or not paramedics were also dispatched, and if the situation escalated to the point hostage negotiators and/or the SWAT team were called to the scene.

Approximately 50 percent of strangulation victims experience voice changes, which is another reason to obtain a copy of the 911 recording. If the victim called 911 to report the incident, the recording may contain evidence of a voice change or evidence concerning other signs and symptoms the victim may have conveyed.

Regardless of whether the district attorney's office ultimately requests a copy of the 911 recording or CAD printout as part of case preparation, an investigator, including the first responding officer, should consider reviewing the 911 recording and CAD printout early in the investigation. A review of these materials may lead investigators to important information needed by the prosecutor prior to charging a case involving strangulation, such as evidence of co-occurring

crimes, including potential child abuse; the presence of other witnesses heard in the background of the 911 recording; secondary reporting parties; and/or other witnesses who may, or may not, have called 911.

B. Body Worn Cameras

The use of a body worn camera (BWC) by law enforcement officers is a powerful tool to collect evidence. A BWC allows officers to document the crime scene, record video and audio statements of involved parties, and record the actions of officers. Jurors can objectively see the scene through the eyes of responding officers from the moment they get out of the police vehicle; view the interactions between all of those involved; and hear the emotional statements of survivors, suspects, children, and witnesses. Because everything is recorded, BWCs are of great value to the justice system.

BWCs are particularly useful in domestic violence cases given the level of intimidation by offenders and recantation by victims. Using BWCs in domestic violence investigations has allowed many cases to proceed even where victims have recanted or have been too afraid to testify. BWCs can also capture the subtle signs and symptoms of strangulation such as redness to the face and neck, voice changes, and/or difficulty breathing, which is nearly impossible to document without an audio recording. A BWC is also the perfect tool to accurately document the entire scene of the incident as an officer walks around each room of the scene, views it from different angles, captures the layout and distances between rooms, and documents the relative level of violence.

While there are many benefits to using a BWC, there are also limitations. It is important to remember that a BWC should not be the only tool used to document injuries. Law enforcement should continue to use a digital camera to accurately document injuries. BWCs do not have the same capabilities of digital cameras, including the use of a flash or the ability to easily produce a still image. Still images created by digital cameras are still easier to use in court and can be easily magnified.

Officers should also keep confidential conversations in mind. BWCs should not be used to record conversations that would be considered privileged, such as statements between a suspect and his attorney or a victim and her advocate. Using BWCs in hospitals has caused concern about patients' rights, and that recording of such contacts between doctors and patients violates the Health Insurance Portability and Accountability Act (HIPAA). For these cases, refer to your department's policy manual for further guidance.

While there are pros and cons to using BWCs, overall there is good news. Recent studies now show that BWCs are holding offenders more accountable: There are more arrests, fewer cases are being dismissed, and convictions are increasing. BWCs may even relieve the pressure and stress of victims having to testify in court and ultimately enhance victim safety.[22]

22. Corbin Carson, "Case Study: Police Body Cams Helping Prosecute Domestic Violence Cases" (Nov. 15, 2017) *KTAR News* <*https://ktar.com/story/1832473/case-study-police-body-cams-helping-prosecute-domestic-violence-cases/*> (accessed Aug. 31, 2020).

C. The Victim's Statement

Before contacting a victim of domestic violence, law enforcement should anticipate that she may have been strangled. A lack of oxygen to the brain may cause unconsciousness, brain injury, or even death days later. If the victim survives a strangulation assault, she may have been strangled to the point of unconsciousness and likely suffered some level of brain injury. Evidence of unconsciousness includes loss of memory, an unexplained bump on the head, and bowel or bladder incontinence. The victim may also report that she was standing up one minute, then simply woke up on the floor and did not know why. Symptoms of hypoxia or asphyxia (a lack of oxygen to the brain) will likely cause the victim to be restless or hostile at the scene. The victim may appear to be under the influence of drugs or alcohol or appear to have stroke-like symptoms. Evidence of temporary or permanent brain injury may include problems with memory, inability to concentrate, headaches, anxiety, depression, anoxic seizures, and/or sleep disorders. The victim may be embarrassed or minimize the incident. But most likely, the victim will have been traumatized from the attack. These factors can dramatically impact how the victim tells her story. It is common in such situations for the victim's story to be jumbled or confused.

1. Trauma-Informed Interviewing

Investigators, dispatchers, prosecutors, court staff, and professionals who interact with stressed or traumatized individuals should remember stress and trauma have the ability to change the way a person's brain operates and processes information.[23] The questions and manner in which professionals interact with trauma victims must be informed by research on this subject to improve the quality of information obtained during interviews and to foster an understanding of why trauma survivors exhibit certain behaviors.

Trauma-Informed Interviewing

- Be aware that brain function may be altered by stressful or traumatic events, impacting memory and recall.
- Avoid leading questions.
- Avoid chronology-related questions.
- Use open-ended questions.
- Consider prompts: "*What are you able to tell me about ... [e.g., the assault, your experience, what happened]?*"
- Ask follow-up questions: "*Tell me more about that*" or "*What, if anything, can you tell me about that?*"

Stress changes brain function during a traumatic event, impacting future recall and potentially even the nature of the memories that are formed.[24] In response to significant stress or a traumatic event, the automatic defense circuitry of the brain often affects the way a person is able to focus their attention, whether they are able to engage in logical decision-making and planning, and how their memories are integrated into coherent narratives or "stories." Each of these changes has implications for the

23. Christopher Wilson, et al., *Understanding the Neurobiology of Trauma and Implications for Interviewing Victims* (Nov. 2016) End Violence Against Women International <*https://bit.ly/38m99tO*> (accessed Aug. 31, 2020).
24. See various works on the issue of trauma, memory, and the neurobiology of stress by Amy Arnsten, Bessel A. van der Kolk, Paul A. Frewen, Ruth A. Lanius, James W. Hopper, and David Lisak.

way a victim or witness will experience and recall an event.[25] It is not uncommon for an individual exposed to significant stress or a traumatic experience to be challenged by questions that focus on the timeline of the assault or on details that seem germane to a police report or criminal justice proceedings, but were entirely irrelevant to the experience of a victim gripped by mind-shattering fear and engaged in a desperate struggle to stay alive.

2. Anticipate a Lack of Memory

A victim might not be able to remember all the details of an assault for several reasons. First, memory deficits following a strangulation assault have been documented in research.[26] In this case, a lack of memory could be related to the mechanism of the strangulation assault that inhibited blood flow to the victim's brain and altered consciousness or rendered the victim entirely unconscious, thereby leaving the victim unable to form memories. Second, a part of the brain important to forming memories is particularly sensitive to hypoxia and anoxia. As a result, forming memories may be impaired by these conditions, even if the victim was not rendered wholly unconscious. Third, when the human brain senses significant stress or danger, the ability of a person to voluntarily focus their attention may be reduced as the brain's defense circuitry takes control. This automatic response to stress or trauma can result in a person's attention being "captured" by events the brain evaluates as important to survival. The direction in which attention is focused during an event, voluntarily or not, will affect the memories formed. These memories can be referred to as central details, with all other memories of the event referred to as peripheral details.[27]

The concept of central and peripheral details is singularly important when interacting with traumatized individuals as it can help explain why victims can recall some details but not others when being interviewed by investigators, testifying in court, or talking on the phone with a 911 dispatcher. The central details of a victim's experience are often easiest to recall as the victim's attention was focused on these elements as the event unfolded.[28] However, difficulty in recall may arise if a trauma victim is questioned about elements of an event on which their attention had not been focused and as a result were peripheral to the victim's experience. Peripheral details might not be easily recollected, if remembered at all.[29]

Adding to these complicating factors, memories formed during traumatic events are known to be different from other memories. For years, researchers have understood that trauma memories are often fragmentary and generally contain more emotional and

25. Wilson, *Understanding the Neurobiology*, *supra*.
26. Lee Wilbur, et al., *Survey Results of Women Who Have Been Strangled While in an Abusive Relationship* (Oct. 2001) 21 Journal of Emergency Medicine 3: pp. 297–302 <*https://www.ncbi.nlm.nih.gov/pubmed/11604293*> (accessed Aug. 31, 2020).
27. Wilson, *Understanding the Neurobiology*, *supra*, at pp. 25–26.
28. Linda Levine and Robin S. Edelstein, *Emotion and Memory Narrowing: A Review* (Aug. 2009) 23 Cognition and Emotion 5: pp. 833–875 <*https://bit.ly/3curtED*> (accessed Aug. 31, 2020).
29. *Id.*

sensory information.[30] When interviewing someone who has survived a traumatic event, investigators need to understand the survivor may have no memory of some parts of the incident. This lack of memory may be evidence of the trauma endured, rather than a sign the subject is lying or uncooperative. Further, because of the emotional- or sensory-laden nature of trauma memories, questions about the emotions, thoughts, or sensory experiences of the victim may yield important information to the case.

3. It May Be Difficult to Describe Distance and Time

Sensing and keeping track of time may be impaired by a hypoxic or anoxic condition in the brain created by a strangulation assault. Hypoxic or anoxic conditions produce an altered level of consciousness. Sensing and keeping track of time can also be negatively affected by significant stress or trauma and may be experienced by victims of domestic violence, strangulation, or sexual assault events.[31] Regardless of the mechanism, victims and witnesses can struggle with estimating time or establishing a rational chronology of any event experienced under trauma, stress, and/or while being strangled. Despite the fact that an accurate timeline of events often has significant implications in the criminal justice process, professionals must be aware that some victims may not be able to directly provide this information due to the nature of trauma or the mechanism of the strangulation assault.

When interviewing victims, start by asking them to share what they are able to remember about their experience. Follow up with open-ended prompts asking them to share more information such as, "Tell me more about that," or "Tell me more about …" a specific item of interest in their reply. Also consider asking them about sensory information experienced during the event or about their thoughts and emotions. Such prompts may encourage recall of events without resorting to leading questions.

If an investigator must seek definite information about a specific element of the event, e.g., the description an item of clothing worn by the suspect, approach this issue with an open-ended, non-leading question. For example, instead of asking, "Did the suspect wear a red or a blue sweatshirt?" consider a question similar to, "What, if anything, are you able to tell me about the suspect's clothing?" Open-ended, non-leading questions avoid the pitfall of accidentally steering victims into a situation where they inadvertently engage in confabulation by adopting information from an investigator's leading question into their response. This unintentional confabulation may needlessly create a credibility challenge to the victim or the investigative process if information contradicting the victim's answer later comes to light.

30. Bessel A. van der Kolk, et al., *Exploring the Nature of Traumatic Memory: Combining Clinical Knowledge with Laboratory Methods* (2001) Journal of Traumatic Stress pp. 10–32; co-published in 4 Journal of Aggression, Maltreatment & Trauma 2: pp. 9–31 <*http://www.complextrauma.uk/uploads/2/3/9/4/23949705/nature_of_trauma_memory_2001.pdf*> (accessed Aug. 31, 2020); Bessel A. van der Kolk and Rita Fisler, *Dissociation and the Fragmentary Nature of Traumatic Memories: Overview and Exploratory Study* (1995) 8 Journal of Traumatic Stress 4: pp: 505–536 <*https://www.jimhopper.com/pdf/van_der_kolk_fisler1995.pdf*> (accessed Aug. 31, 2020).
31. Anke Ehlers and David M. Clarke, *A Cognitive Model of Posttraumatic Stress Disorder* (Apr. 2000) 38 Behaviour Research and Therapy 4: pp. 319–345 <*https://www.sciencedirect.com/science/article/abs/pii/S0005796799001230*> (accessed Aug. 31, 2020).

4. Sample Questions to Ask the Strangled Victim

To help law enforcement ask the right questions, some sample questions are listed below. See Attachment 3-2: Napa Police Department's Strangulation/Suffocation Questionnaire and Attachment 3-3: Fresno Police Department's Law Enforcement Brochure (Adapted)—Strangulation: A Quick Reference Guide for additional sample questions and examples.

a. Identifying General Aspects of the Assault

- *What are you able to tell me about* … [e.g., your experience, the assault, what happened]?
- *Has anyone applied any pressure to your neck by any means*?
- Document the victim's description of the assault, including the location and positions of each individual involved.
- Ask the victim where she was strangled, then look for corroborating evidence in those areas. If something was broken in the struggle, photograph it.
- At some point in an investigation, it may become important to establish the timeframe of the strangulation assault. Instead of asking questions that may potentially force a victim to commit to a specific order of events (see the paragraph above regarding potential victim challenges with sensing and keeping track of time), which might be later disproved, investigators should carefully consider how to articulate the questions to gather this information. For example, in one case, a victim was actually strangled in front of a wall clock. She saw the time as she was being strangled to unconsciousness, and when she came to, she saw the new time. "*What, if anything, can you tell me about how long the assault lasted*" may be useful in gathering such information.
- *What did the suspect say while he was applying pressure to your neck*? [Intent]
- *Describe the suspect's demeanor*? *Facial expression*? [Intent]
- *What did you think was going to happen*?
- *Has this happened before*?
- *What was different about this time*?

b. Identifying the Method of Strangulation and/or Suffocation

It is important to ask the victim a series of questions designed to elicit specific information about the method of strangulation. Simply reporting a victim was "grabbed by the neck and forced into the wall" does not provide sufficient detail for a prosecutor to walk into a courtroom and prove the case. The prosecutor needs to paint a picture of what took place so jurors can create an image in their minds of exactly what happened. Jurors should feel like they are watching the

actual event. To achieve this, investigators need to detail for prosecutors what took place without offering "suggestions" of what happened to the victim.

Pressure

- *How was pressure applied to your neck and/or any other part of your body*?
- *How many times was pressure applied to your neck during the incident*?
- To determine the amount of pressure used by the perpetrator to strangle the victim, consider asking: "*On a scale from 1 to 10, with 10 being the most pressure, how much pressure was applied?*"
- *What, if anything, are you able to tell me about the way the pressure felt? If you can, describe the pressure on your neck*.
- *Did anything happen after pressure was applied to your neck? To your face? To your mouth or nose*?
- *Did you change your clothes [possible urination and/or defecation]*?

Method

- *Were different methods used to strangle you during the incident*? [Intent]
- If the victim is willing and able, ask if she could demonstrate the method of assault using a wig head or mannequin. Investigators should be sensitive to the fact that a demonstration of the assault may be traumatizing.
- Consider discontinuing the victim's demonstration if she exhibits any hesitation or distress. If the victim is able to complete the demonstration, use photography or video to document.

The Los Angeles County Sheriff's Department in Lancaster, California, has modified its assault reporting form to include graphic images of the various methods a victim may be strangled and/or suffocated. See Figure 3-2: Supplemental Report for Strangulation Assaults. Deputy Alex Smith has reported increased prosecution after they began using the form.

c. Identifying External Injuries

It is important to ask the victim a series of questions designed to elicit specific information about her external and internal injuries that are consistent with having been strangled. Even when victims exhibit injuries from strangulation, the injuries will likely appear minor and limited to the point at which pressure was applied. The following table provides a summary of the locations on the body where investigators may find signs of strangulation and/or suffocation.

FACE	EYES & EYELIDS	NOSE	EAR	MOUTH
❑ Red or flushed ❑ Pinpoint red spots (petechiae) ❑ Scratch marks	❑ Petechiae to R and/or L eyeball (circle one) ❑ Petechiae to R and/or L eyelid (circle one) ❑ Bloody red eyeball(s)	❑ Bloody nose ❑ Broken nose (ancillary finding) ❑ Petechiae	❑ Petechiae (external and/or ear canal) ❑ Bleeding from ear canal	❑ Bruising ❑ Swollen tongue ❑ Swollen lips ❑ Cuts/abrasions (ancillary finding)
UNDER CHIN	**CHEST**	**SHOULDERS**	**NECK**	**HEAD**
❑ Redness ❑ Scratch marks ❑ Bruise(s) ❑ Abrasions	❑ Redness ❑ Scratch marks ❑ Bruise(s) ❑ Abrasions	❑ Redness ❑ Scratch marks ❑ Bruise(s) ❑ Abrasions	❑ Redness ❑ Scratch marks ❑ Fingernail impressions ❑ Bruise(s) ❑ Swelling ❑ Ligature mark	❑ Petechiae (on scalp) ❑ Ancillary findings: » Hair pulled » Bump » Skull fracture » Concussion

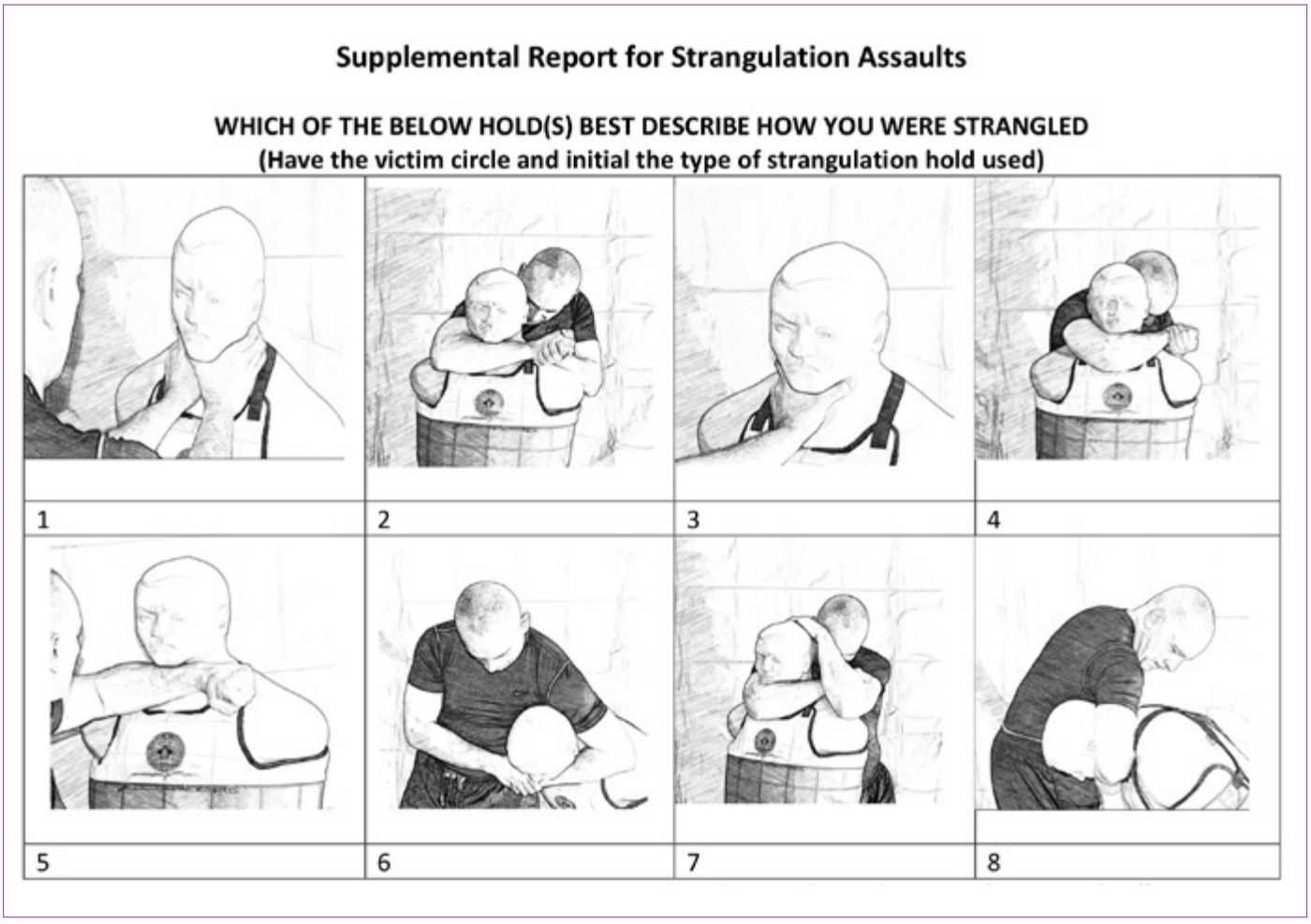

Figure 3-2. Supplemental Report for Strangulation Assaults. Photos by Detective Alex Smith, Los Angeles County Sheriff's Department.

- Look for injuries behind the ears, around the face, neck, scalp, chin, inside the mouth, jaw, on the eyelids, shoulders, and chest area.
- Look for redness, abrasions, bruises, scratch marks, scrapes, fingernail marks, thumbprint bruising, ligature marks, petechiae, blood in the white of the eye, swelling, and/or lumps on the neck.
- If the victim is wearing makeup, ask the victim to remove it before leaving the scene. Take photographs before and after the makeup is removed. The first photo will show exactly what the investigator saw and the second may capture additional injuries.
- Look for neck swelling (it may not be easy to detect). Ask the victim to look in the mirror to assess any swelling. Take photos of the victim's neck even if you do not see injuries or swelling as they may appear later. Emergency room nurses have reported using a tape measure and time-sequenced measurements to document swelling of the neck.
- Ask the victim about any injuries that might be concealed by makeup, long hair, and/or clothing.
- When no injuries are apparent, the victim can look in a mirror to get a better perspective. It is important to tell the victim to notify detectives working on the case if injuries later appear or if she seeks additional medical care.
- Leaving your business card with encouragement to call will be more effective than if you give the victim a general phone number at your agency.

d. Identifying Internal Injuries

In a 2016 study involving 1,064 victims of sexual assault and intimate partner violence, researchers found that 67 percent of strangulation victims reported at least one symptom of strangulation.[32] The table below provides a summary of what symptoms to look for when trying to identify internal injury symptoms on a victim who has reported being strangled or who is believed to have been strangled.

BREATHING CHANGES	VOICE CHANGES	SWALLOWING CHANGES	BEHAVIORAL CHANGES	OTHER
❑ Difficulty Breathing	❑ Raspy voice	❑ Trouble swallowing	❑ Agitation	❑ Dizzy
❑ Hyperventilation	❑ Hoarse voice	❑ Painful to swallow	❑ Amnesia	❑ Headaches
❑ Unable to breathe	❑ Coughing	❑ Neck Pain	❑ PTSD	❑ Fainted
❑ Other	❑ Unable to speak	❑ Nausea/Vomiting	❑ Hallucinations	❑ Urination
		❑ Drooling	❑ Combativeness	❑ Defecation

32. Renate R. Zilkens, et al., *Non-fatal Strangulation in Sexual Assault: A Study of Clinical and Assault Characteristics Highlighting the Role of Intimate Partner Violence* (Jun. 2016) 43 Journal of Forensic and Legal Medicine: pp. 1–7 <https://www.sciencedirect.com/science/article/abs/pii/S1752928X16300592> (accessed Aug. 31, 2020).

Here is the challenge: The first sign of a traumatic injury to the victim may begin with symptoms that the victim does not realize are significant and she may not volunteer the information. Identifying symptoms of internal injury such as a concussion, a traumatic brain injury, swelling, difficulty breathing, or swallowing may also indicate the victim needs medical attention even though she declines.

If the right questions are asked, investigators may be able to identify a traumatic injury that is not readily apparent. Strangulation is the type of assault where victims need to be educated about the seriousness of applying pressure to the neck and compromising airflow or blood flow, what happens when there is a lack of blood flow to the brain, as well as the immediate and delayed consequences. To identify internal injuries, consider asking the following questions related to breathing, concussions, and loss of consciousness.

Breathing Issues

- Ask one at a time whether the victim could: (1) breathe? (2) talk? (3) scream? These questions help determine if airflow was obstructed.
- *How did you feel when this was happening to you*? (Take extra time to document any description about the terror the victim felt from the inability to breathe.)
- *Are you having any trouble breathing now*?
- *Is your breathing any different than before the incident*?
- *Was your breathing compromised in any way during the incident*? *If so, explain*.
- *On a scale from 0 to 10, with 0 meaning your breathing was normal and unrestricted, did you experience any change in your normal breathing during (and/or after) the assault*?
- *Do you have asthma or a history of breathing troubles*?

Note: Victims may say they could not breathe, but this may or may not mean their airway was blocked. Without adequate blood supply to the brain, victims will feel like they cannot breathe even if their airway itself is still open.

Concussion, Neck, Muscle, Throat, and/or Nerve Injuries

- *Were you simultaneously shaken while being strangled*?
- *Were you thrown against the wall, floor, or ground*?
- *How does your neck feel*? *Describe*.
- *Do you feel any pain on movement or touch*? *Describe*.
- *Do you have pain anywhere else*? *Describe*.
- *How does your throat feel*? *Describe*.
- *How does it feel to swallow*? *Describe*.

- *Are you having any saliva problems*?
- *Does your voice sound any different since the assault*? *Describe*. Record the victim speaking.
- *Did you cough after the assault*? *Is the coughing still occurring*? *Describe*.

Loss of Consciousness

- *What did you see*? (Indicators of a lack of oxygenated blood to the brain.)
- *Did you experience any visual changes*?
- *How did you feel during the assault*? *After the assault*?
- *Did you feel any dizziness*?
- *Is it possible that you could have fainted or lost consciousness*? (If yes, describe.)
- (If the victim lost consciousness) *Tell me more about how you were feeling just before and after you lost consciousness (e.g., gap in time, waking up on the floor, bump on head from unknown cause)*.
- *Are these the clothes you were wearing during the assault*? *Did you change your clothes*?
- *Did you lose control of any bodily functions*? *Urination*? *Defecation*?
- For Women: *Is it possible you are pregnant*? *How far along*? *Any problems since the assault*?
- *Did you feel nauseated or vomit*? Describe.

D. The Suspect's Statement

Domestic violence offenders come from all walks of life. They live in every ZIP Code and work in every profession. They can be emotional, upset, angry, charming, and/or very manipulative. Obtaining statements from everyone at the scene, including the suspect, will always help sort out the truth. Most suspects involved in domestic violence want the opportunity to tell their side of what happened and be heard, even if it is only to manipulate law enforcement. The more they talk, the more information law enforcement will get to help sort out the truth. Suspects should feel that law enforcement wants to listen to what they have to say. Some suspects will deny everything and claim nothing happened at all, while others will minimize what they did, make partial admissions, and/or claim self-defense. *In some cases, a small number will actually admit to everything and ask for help explaining the problems they have*. Suspect interviews are always recommended and are the fair course of action.

Ideally, the first conversation with a suspect would be in an out-of-custody atmosphere where law enforcement is trying to figure out what happened. The conversation should be non-confrontational, and this situation would not require a *Miranda* warning. In other circumstances, a *Miranda* warning would be necessary and recommended. Once law enforcement obtains all statements from the victim, any witnesses, and the suspect, the officer(s) may want to confront the suspect with any contradictory information they have and listen to his responses.

If the first responding officers are wearing BWCs, those interviews will be digitally recorded. Not only will the questions and answers be recorded, so will any spontaneous statements by the suspect. If there is no BWC recording, it is important to document a suspect's demeanor, appearance, sobriety, any injuries, and any spontaneous statements made during the interview,

Even after a suspect is in custody, there should be a second interview with a *Miranda* advisement that is recorded with video and audio. If the suspect is willing to talk, there should be an opportunity for him to tell his version again. Comparing the suspect's first version of events to this version will usually show variations. Confronting a suspect with such variations can be useful during an interrogation. Toward the end of the interview (whether in- or out-of-custody), law enforcement should ask the suspect if he would like to provide a message to the victim. For example, the suspect could write a letter of apology to the victim.

Law enforcement should convey to the suspect in the interview that the victim is not the one pursuing charges in this case, and the prosecutor's office will determine what charges are applicable based on the information provided. Suspects should be treated fairly and with respect throughout the entire interview. Many domestic violence suspects will encounter the criminal justice system again in the future. Therefore, an officer's encounter today with a suspect may have an impact on his cooperation with law enforcement in the future.

E. Witness Interviews

Seventy-eight percent of intimate partner strangulations occur inside the home, which may lead many to believe that there are few, if any witnesses. Yet research shows that adult witnesses will be present in these situations up to 39 percent of the time, and children alone may be present between 50–75 percent of the time.[33] In domestic violence cases, witnesses may include every person and/or child living or visiting the home who can provide some corroborating information. There could be witnesses who were present in the home, but left. There could be witnesses who saw the victim before she was injured and after the assault. Neighbors are witnesses and are often the ones who call 911. Neighbors may have heard loud voices, people arguing, or the victim screaming for help. Neighbors may be aware of a history of arguments or violence. The neighbor may even be the person the victim ran to for help.

Victims often call friends, family members, or co-workers before and/or after the incident occurred. Victims who do call 911 first may call family, friends, or co-workers while waiting for law enforcement to arrive, and these witnesses typically hear the victim's demeanor and voice as she explains what happened. Children are often present during the assault and may even have called 911 or a relative for help. Children should always be interviewed. Letting children talk about what happened and acknowledging them can assist them in dealing with this traumatic event.

Talking with witnesses as soon as possible after the incident is imperative because their memory is fresh and there is less time for them to have talked with other parties, which may affect their

33. Wilbur, *Survey Results of Women Who Have Been Strangled*, *supra*; Lisa B. E. Shields, et al., *Living Victims of Strangulation: A 10-Year Review of Cases in a Metropolitan Community* (Dec. 2010) 31 American Journal of Forensic Medicine and Pathology 4: pp. 320–325 <*https://bit.ly/2xaDq29*> (accessed Aug. 31, 2020).

statements. Every witness, including the suspect's mother, should be interviewed to "lock" them into a statement. Failing to interview a suspect's mother because you believe she will protect the suspect will allow her to come in much later with a new version meant to protect the suspect.

Friends and family of the parties often have the best information of prior violence in this relationship and are willing to share in order to protect the victim. Some will have electronic messages or notes from the victim. Some will have photos on their phones of prior injuries to the victim that the victim may have sent for safekeeping.

Other witnesses include emergency medical technicians (EMTs) and paramedics who were called to the scene shortly after the incident. The victim may have been transported to a local hospital. Statements made to medical professionals concerning the incident, how they are feeling, and what caused their injury for purposes of medical treatment are considered exceptions to hearsay and admissible under the medical diagnosis exception.

In strangulation cases, most victims will not have visible injuries *at the time* law enforcement responds. Victims may or may not be aware, appreciate, or understand any symptoms they may be experiencing. Identifying witnesses after the incident occurred who may be able to corroborate visible injuries, voice changes, problems swallowing, or changes in behavior will provide corroborating evidence. While the victim is cooperative, ask who she saw or talked to about the incident after the incident occurred. Did the victim try to get a protection order? Did she stay with anyone? Did she see friends, family members, or co-workers when she had visible injuries? Did she talk to a victim-witness advocate at the district attorney's office to get the charges dropped or to the suspect's probation officer? Was subsequent medical attention sought? Did she talk to anyone from Child Protective Services (CPS)?

F. Evidence

Prosecutors need to re-create the scene for the judge or jury. It is important the judge and jury understand the evidence gathered by officers at the scene, and in order to understand it, they must see and feel it. Prosecutors must make the case come to life. Everyone who reviews the case should feel as if he or she were present when the incident took place. Prosecutors need evidence that will corroborate the truth of what happened to the victim. Victims of domestic violence may recant, minimize, or completely change their story by the time the case goes to trial. If that happens, it will be the evidence gathered by investigators that tells the truth.

Take the example of a victim reporting she was "choked" in the bedroom. She ran out of the room, and the defendant tackled her at the top of the stairs where he "choked" her again. He then pushed her down the stairs to the landing. What visual images would the prosecutor want the court to see? The investigator's diagrams and photographs will become evidence that will be marked as exhibits and introduced into court.

- Photograph and sketch the scene. A sketch can provide a visual of the scene layout, especially the locations of people at the scene, distances, and areas of significance.
- Imagine a victim is strangled on the bed and manages to roll off the bed into a small space between the bed and the wall where the strangling continues. Photographs or video visually

showing the confined space would provide the court with a gripping sense of how vulnerable the victim felt.

- Locate, photograph, and collect any object that was used to strangle the victim. Ask the victim where the object came from. [Intent.]
- Document any blood found on the victim, the walls, along the stairs, or at the bottom of the stairs.
- Document any clothing that has blood on it that will help indicate the amount of bleeding.
- Document clothing that is torn or ripped during the incident to support pulling, dragging, and/or a struggle.
- Photograph the stairs looking up and down. Were the stairs covered with carpet, wood, or tile? Across how many steps was the victim pushed or dragged?
- Collect writings or journals by the victim of past similar events.
- Consider asking the victim during the initial contact interview if she has received any apologies from the suspect. It is not uncommon for an abuser to apologize to his victim about prior or current acts. Such apologies may take the form of cards, text messages, social media messages, or notes. If possible, collect and/or photograph these items. Getting these apologies up front will help your case if the victim later declines to cooperate with a follow-up investigation.
- Collect any lists of "household rules" created by the suspect.
- Photograph and collect any property that was significantly damaged in the incident.
- Document any medical treatment recommended or obtained? Obtain a medical/dental release. Consider obtaining a copy of the emergency medical services response report.
- Ask about any video documenting the incident. What about home video security and surveillance equipment (e.g., Arlo, Nest, Ring), nearby commercial security cameras, or bystander cell phone video? Consider canvassing the area for these recordings, as they may potentially be lost over time.

In cases where the suspect has fled the scene, a critical piece of evidence will be a photograph of the suspect. Ask the victim for a recent photo of the suspect and to identify the perpetrator who committed the assault. This photo should be booked as evidence. When the victim is not present at the preliminary hearing, this photo can be used for suspect identification by the officer who collected it.

G. Photographs

As the saying goes, "A picture is worth a thousand words." A responding officer cannot take too many photographs in domestic violence cases.

Every visible injury should be documented with a photograph, including areas with a complaint of pain but no visible injury. Later, when the injury does appear, the initial photograph can corroborate the lack of a preexisting condition.

If the victim is wearing makeup, ask the victim to remove it before leaving the scene. Take photographs before and after the makeup was removed. The first photo will show exactly what the investigator saw and the second may capture additional injuries such as florid petechiae. Generally speaking, the following photographs should be taken:

- Distance photo: one full-body photograph of the victim from a distance will help identify the victim and the location of the injury.
- Close-up photos: multiple close-up photographs of the face and neck area (front, back, and sides) at different angles will make it easier to see the injuries clearly. Specific areas to photograph include both surfaces of both ears, under the chin, the inner surface of the upper and lower lips, the soft palate, inside the cheeks, under the eyelids, and the eyes (looking up, down, medial, and lateral).
- Follow-up photos: taking follow-up photographs of the injury 24, 48, and 72 hours later will document the injuries as they evolve over time and maximize your documentation. It is also helpful to place a non-glare ruler in the same plane of the injury to accurately measure the size of the injury or injuries.

Consider having a female officer take photos of the victim, especially if there are injuries to a female victim's breast area. The victim may need to change or remove clothing in order to accurately document the injuries. Victims will likely be embarrassed, and there may be cultural considerations.

For strangulation cases, especially where florid petechiae are present, it is recommended that officers also take photos of the victim when the injuries have cleared. These photos will be important for comparison between potential injuries documented at the scene and the state of the victim after recovery.

Photographs of children in the home at the time of the incident are often particularly powerful, because they put a face to a voice on the 911 recording. Photographs of children often assist the testimony of an officer regarding an admissible hearsay statement from a child. Photographs of children crystallize the destructive reality of domestic violence for everyone in the courtroom.

Photographs of pets present at the scene also bring the reality of domestic violence to the courtroom, especially where there are threats against the pet or a history of animal abuse.

H. Medical Examination and Documentation

As previously discussed, the victim may have internal injuries that later cause complete airway obstruction, even 36 hours after an injury.[34] As such, when victims report they were "choked," dispatchers, patrol officers, investigators, and prosecutors should strongly encourage victims to seek medical attention. If a victim reports symptoms such as difficulty breathing or swallowing, paramedics should be immediately dispatched to the scene to screen the victim for possible

34. Donald J. Smith, Jr. et al., *Frequency and Relationship of Reported Symptomology in Victims of Intimate Partner Violence: The Effect of Multiple Strangulation Attacks* (2001) 21 Journal of Emergency Medicine 3: pp. 323–329 <https://bit.ly/3hVdqu8> (accessed Aug. 31, 2020).

internal injuries. Even if the paramedics determine a lack of objective symptoms to support internal injury, their medical examination will prove very helpful to assess the victim's health and document any visible injuries and/or symptoms. See Attachment 3-4: The Strangulation Assessment Card.

The Strangulation Assessment Card was designed by first responders for first responders and approved by the Medical Advisory Committee of the Training Institute on Strangulation Prevention, which is made up of the leading forensic medical experts in the United States. It provides a quick review of the signs and symptoms of strangulation, a checklist of what to do at the scene, recommendations for when to transport a strangled victim to the hospital, information about delayed consequences, discharge information for the victim/patient, and a notice to the medical provider about properly assessing a strangled patient, including a recommendation for medical providers to order a CT angiography of the neck to assess for internal injuries. It has also been used to comply with Penal Code section 13701, The Duty to Warn Law (discussed below). Without question, strangled victims need medical attention and when examined by trained professionals, their medical examination, assessment, documentation, and treatment can provide persuasive forensic evidence to confirm that an assault took place.

After speaking with the victim and assessing the victim's physical condition, determine whether emergency medical services (EMS) should be summoned to the scene. Officers should always summon EMS if: (1) the victim requests medical attention (whether the officer believes EMS should be summoned or not) or (2) if it appears that strangulation has occurred.[35] It is also important for officers to take this opportunity to educate the victim about the seriousness of strangulation.

The 2017 Senate Bill that required law enforcement to track and report suffocation and strangulation crimes to the Attorney General also created a duty for law enforcement to provide victims of strangulation or suffocation a written warning advising that "strangulation may cause internal injuries and encouraging the victim to seek medical attention."[36] A sample advisement for strangulation survivors has been suggested by the Training Institute on Strangulation Prevention and is included here.

SAMPLE STRANGULATION ADVISEMENT

I have a duty to warn you that strangulation is serious and can cause internal injuries, brain damage, and/or delayed health consequences, such as strokes, thyroid issues, miscarriage, and/or death.

Research shows that if you are strangled even one time, you are 750% more likely to be killed by your partner.

We strongly encourage you to seek immediate medical attention at an emergency department and ask for support from an advocate.

Reports from responding paramedics and emergency room records should be reviewed for statements by the victim describing the infliction of injuries. EMS transporters (e.g., paramedics, emergency medical technicians, firefighters)

35. Law Enforcement Policy Center, *Domestic Violence: Model Policy* (2019) <https://bit.ly/2TFmSqr> (accessed Aug. 31, 2020).
36. Pen. Code § 13701(c)(9)(I).

generally must complete a "run-sheet" when they transport someone for treatment. These sheets may contain valuable hearsay statements or other material evidence.

The treating paramedics and emergency room personnel can also testify about the extent and treatment of the victim's injuries. Statements made by victims to medical professionals are generally considered an exception to the hearsay rule as a medical diagnosis exception. Most juries are fascinated by medical testimony as it drives home the seriousness of the assault.

In one case prosecuted by the San Diego City Attorney's Office, the police officer indicated in his report that the victim had "red abrasions to the neck." He encouraged the victim to seek medical attention, which she did. In reviewing the medical records, the treating physician indicated the patient had "multiple linear contusions to both sides of her neck with overlying redness, mild edema, and tenderness."[37] The medical corroboration tremendously enhanced the case, allowing the prosecutor to obtain a quick guilty plea in court. None of the witnesses or the victim had to come to court to testify.

More importantly, by calling the paramedics, you may even save a life by providing the victim with immediate medical attention.

I. Prior History of Abuse

A victim of a prior strangulation is 600–700 percent more likely to be a victim of attempted homicide by the same partner and 750 percent more likely of becoming a homicide victim at the hands of the same partner.[38] It is a rare case where the first incident of domestic violence involves strangulation. Often, there is a long history of domestic violence before a victim is strangled, even multiple strangulations, death threats, and thoughts of dying. In the San Diego study, the authors found a history of documented domestic violence in 89 percent of the cases.[39] Prior history of abuse is important for many reasons: It helps professionals assess the risk of future violence, establish the pattern of abuse, explain whether there is a credible threat, and document the level of fear. It also helps the prosecutor in charging, sentencing, bail hearings, and probation revocation hearings. Such evidence can be used for impeachment purposes at trial.

J. Follow-Up Investigation and Interviews

The follow-up investigation by a detective or investigator is critical in domestic violence cases. Such investigations should be geared to the requirements of the prosecutor's office with the focus on how to prove the case without the victim's participation.

At a minimum, the follow-up investigation should verify the inclusion of all investigative steps described above for the on-scene investigation. In addition, the most important pieces of evidence at trial are often follow-up photographs taken two–three days after the incident. Follow-up photographs can provide far more powerful evidence of the true violence than the

37. Strack, et al., *A Review of 300 Attempted Strangulation Cases Part I*, *supra.*
38. Glass, *Non-Fatal Strangulation Is an Important Risk Factor*, *supra*.
39. Strack, et al., *A Review of 300 Attempted Strangulation Cases Part I*, *supra*.

initial on-scene photographs. Since most bruises are not visible for days after a violent assault, follow-up photographs must be central to every investigation.

Re-interviewing the victim and witnesses are as important as taking follow-up photos. Victims often give more detailed statements after they have had a chance to calm down and reflect on what occurred. On the other hand, it will be very clear in the follow-up investigation if the victim is still with, or reluctant to testify against, her abuser. The prosecutor must know the relationship status of the victim when deciding how to proceed at trial.

In addition to follow-up photos and interviews, the following evidence is very useful in prosecuting batterers and should be collected in a thorough follow-up investigation:

- The name, address, and phone number of two close friends or relatives of the victim who will know her whereabouts 6–12 months from the time of the investigation.
- Statements of family members for corroboration and/or history of the relationship.
- A records check for documented domestic violence history in the county of jurisdiction to include Child Welfare Services and Adult Protective Services reports. Additionally, investigators may wish to conduct a national (NCIC) off-line search for records from law enforcement agencies that previously submitted NCIC inquiries on the suspect. After receiving the results of such a search, investigators should contact the agencies listed and request any available copies of relevant police reports. Information in these reports may document prior acts of domestic violence, which might potentially provide evidence admissible under Evidence Code section 1109.
- An interview with the victim regarding all prior domestic violence incidents including dates, locations, witnesses, injuries, and corroborating evidence.
- A statement by the victim regarding prior admissions and apologies from the defendant, especially those documented in any letters, notes, or cards.
- An interview with the suspect if she was not interviewed by responding officers.
- The defendant's phone records to show contact with the victim, including calls from jail.
- Notes, cards, emails, faxes, and letters from the defendant to the victim (including those sent from jail).
- A statement by the victim regarding any "house rules" or expectations for the relationship authored by the abuser for the victim to follow, including any copies displayed in the house.
- A diary or a log of history of abuse by the defendant.
- Any restraining orders against the suspect. Contact the court to request copies of the victim's prior restraining order declarations (Form DV-100: Request for Domestic Violence Restraining Order).[40]

Remember, victims experience voice changes in approximately 50 percent of non-fatal strangulation cases.[41] Based on this anecdotal evidence and the medical literature, it is important

40. *<https://www.courts.ca.gov/documents/dv100.pdf>* (accessed Aug. 31, 2020).
41. Wilbur, *Survey Results of Women Who Have Been Strangled*, *supra*; interviews with detectives from the San Diego Police Department.

to audio record or video record statements obtained during the follow-up investigation to document voice changes for later evaluation by medical experts and to corroborate the victim's allegations. Many digital cameras have a video feature; use this feature to capture a raspy voice, difficulty swallowing, coughing, pain exhibited by the victim, and/or drooling. See Attachment 3-5: Strangulation Video Documentation Video Statement for Altered Voice.

K. New Evidence

After the suspect is arrested, there will be new evidence to collect. Suspects will call victims from the jail. They will apologize, harass, threaten, intimidate, and violate protection orders to get victims to drop the charges. A 2011 study sheds light on the tactics used by abusers to coerce victims into recantation, making clear the value of inmate call recordings in documentation of this conduct.[42] Suspects will also call, text, and/or use social media to contact and intimidate the victim. By collecting this valuable evidence, investigators can assist prosecutors in building their case of forfeiture by wrongdoing.[43]

1. Jail Calls

The ability of those incarcerated to conduct both audio calls and video chats is a convenient way for suspects to contact their victims or other family members. It is also an effective tool suspects can use to continue asserting their power and control over victims. Suspects often ignore the warnings provided on all jail calls and video chats informing them that their communications are being recorded and that they can be reviewed by law enforcement. Take the time to listen to the jail calls made by suspects in these types of investigations. Suspects will often commit new crimes when communicating in calls with the victims. Often those crimes include violating the Emergency Protective Order that was issued just hours before or harassing, intimidating, or persuading witnesses. Suspects might also make admissions about the crime being investigated or talk about other crimes they have committed. Just because the suspect is in custody, do not stop the investigation and evidence gathering. Jail calls have proven to be goldmines of information and will continue to be as long as suspects ignore the warnings and investigators continue to investigate and review jail calls.

2. Consent Search of a Victim's Cell Phone

Attempt to obtain a consent search from the victim for her cell phone in cases where there is alleged or documented audio or video footage of the incident, text messages, calls, threats, harassment, stalking, photographs of injuries (current or previous incidents), or multimedia messages (MMS) being exchanged between the involved parties or their associates. If a victim is reluctant to provide consent, consider that she

42. Amy E. Bonomi, et al., *"Meet Me at the Hill Where We Used to Park": Interpersonal Processes Associated with Victim Recantation* (Jul. 2011) 73 Social Science & Medicine 7: pp. 1054–1061 <*https://bit.ly/2ToOnWa*> (accessed Aug. 31, 2020).
43. To learn more about forfeiture by wrongdoing, see Evanthia A. Pappas, *Forfeiture by Wrongdoing After* Crawford *and* Giles*: An Effective Tool for Prosecutors with an Absent Victim at Trial* (Spring 2017) 39 Prosecutor's Brief 3: pp. 226–241, California District Attorneys Association <*https://www.cdaa.org/wp-content/uploads/Spring-2017-PBrief.pdf*> (accessed Aug. 31, 2020; login required.)

might not be trying to be uncooperative, but rather trying to protect herself from future incidents of violence from the suspect as it would appear very different to the suspect if he finds out that the victim gave consent to search the phone as opposed to being served with a search warrant. If possible, do not take the victim's cell phone as it may be her lifeline. Take photos of her cell phone screen to document text messages.

3. Cell Phone Search Warrants

It is very uncommon for anyone to be without their cell phone. With this fact in mind, cell phones can provide a wealth of information and evidence to prove your case. Consider obtaining search warrants for the suspect's cell phone in cases where you think there might be information regarding the incident, previous incidents of domestic violence, allegations of harassing or intimidating a witness, and/or stalking. The use of search warrants to search a suspect or victim's cell phones can offer a glimpse into the lives of the involved parties and provide evidence that would otherwise never be collected. It is very common for those involved in domestic violence incidents to text loved ones about the abuse; apologize or confront their partner about the abuse; photograph or send photographs of injuries; conduct Internet searches about resources; threaten the victim about reporting; and document past incidents of domestic violence. Data recovered from cell phones can also serve to corroborate or discount the statements provided by involved parties. While serving a search warrant on a victim can ruin any rapport between the investigator and the victim, there may be times when it is a necessity. Use cell phone search warrants to obtain:

- all communications content, including email, text (SMS/MMS or app chats), notes, or voicemail;
- all location data for the dates of the alleged incident or previous incidents (especially helpful in stalking investigations);
- all photographic/video/audio data and associated metadata;
- all Internet history for the dates of the alleged incident or previous incidents; and
- all financial information (to prove ownership and control).

Consider including the following paragraph, if accurate, after your probable cause statement:

> *Your affiant knows by training and experience* that victims and suspects involved in domestic violence and stalking incidents exhibit similar behaviors in past and current relationships. These behaviors are often documented in letters, journals, notes, emails, photographs, videos, and pictures. These items are often stored digitally on computers, disks, phones, or other electronic storage devices. Domestic violence victims and suspects also conduct Internet research regarding emotional and psychological issues of relationships regarding domestic violence and/or stalking. This research is often conducted through books and

Internet searches. The cell phone that belongs to (victim or suspect's name here) is capable of conducting these actions.

Reviewing this data can be time consuming and difficult at times, but the information gathered may provide so much evidence that it will be difficult for the defense to refute or contradict the evidence. By increasing the quality and quantity of evidence in these investigations, we are protecting victims and their families from future incidents of violence.

4. Forensic Investigators and/or Nurses

Forensic investigators and nurses are specially trained to gather evidence using various techniques and photographic equipment. They are proficient in follow-up examinations, taking photographs, and interpreting medical records. Today, crime scene investigators are being sent to non-fatal strangulation cases, especially where there is evidence of loss of consciousness, urination, and/or defecation to corroborate a felony assault or an attempted homicide. And many sexual assault nurses have expanded their scope of practice to include the forensic examination of strangulation victims. In 2016, the International Association of Forensic Nurses developed the first Toolkit for Forensic Nurses for this examination.[44] Forensic nurses play a critical role in the clinical examination and comprehensive documentation of the strangled victim.[45] They can assist police and prosecutors interpret medical records; understand offensive, defensive, accidental, and/or intentional injuries; document follow-up injuries; and/or testify in court as experts. Jurisdictions across California such as San Diego, Riverside, Shasta, Ventura, and Stanislaus, among others, are making good use of crime scene investigators, paramedics, forensic nurses, and/or specially trained detectives to win cases even without the victim's participation.

5. The Dominant Aggressor

When officers arrive at the scene of a domestic violence call, they may find both parties without visible injuries, both parties with visible injuries, or one party with injuries and the other with no visible injuries. The challenge is to determine which party is the dominant aggressor and which is the true victim. In non-fatal strangulation cases, it is more likely victims will use self-defense to stay alive. In a 2011 survey conducted by the Maine Coalition Against Domestic Violence with convicted batterers, researchers determined that at least 31 percent of strangled victims used self-defense in order to protect themselves. Victims may protect themselves by pulling the suspect's hair, pushing, biting, scratching, kicking, or attempting to use a weapon to defend themselves. Depending on the method of strangulation being used or other factors, the suspect may be the only individual with visible injuries.

44. International Association of Forensic Nurses, *Non-Fatal Strangulation Documentation Toolkit* (2016) <https://bit.ly/2TtuDRD> (accessed Aug. 31, 2020).
45. Diana Faugno, et al., *Strangulation Forensic Examination Best Practice for Health Care Providers* (Oct. 2013) 35 Advanced Emergency Nursing Journal 4: pp. 314–327 <https://bit.ly/2xdulpc> (accessed Aug. 31, 2020).

For example, if the suspect strangles the victim from behind and uses a chokehold, the victim may protect herself by biting the suspect's arm. If the suspect manually strangled the victim from the front (face-to-face), she may push him away, scratch him, or pull his hair.

To identify the dominant aggressor, officers and prosecutors should consider the following factors:

- height and weight of the parties;
- who is fearful of whom;
- details of statement and corroboration;
- history of domestic violence, assaults, or criminal history;
- use of alcohol or drugs;
- whether either party is subject to a restraining order or on domestic violence probation;
- pattern evidence;
- injuries consistent with the reported statement;
- hair, blood, or fiber on the hands, or evidence of epithelial cells after strangulation (fingernail scrapings);
- signs and symptoms of strangulation; and
- signs of offensive/defensive injuries.

It is also important to consider defense of self, others, and/or property as well as self-inflicted injury caused by victims trying to defend themselves, or the defense argument that the victim likes to be strangled.

6. Strangulation Investigation Reports

As in other criminal cases, such as driving under the influence or being under the influence of a controlled substance, patrol officers should note their experience and training concerning domestic violence and strangulation in their police reports. For example:

> I have been a patrol officer for five years. During that time, I have investigated 500 domestic violence cases. In many of those cases, victims have reported being strangled. I have also received training in domestic violence and the medical signs and symptoms of strangulation. Based on my experience and training, I know strangulation can cause serious internal injury. Unconsciousness can occur within seconds. Death can occur within minutes. Visible injuries may not be present at the time of the initial police response but may appear hours or days later. Victims may not report any symptoms they could be experiencing due to the trauma, lack of memory, or simply because it's too minor to report or not

apparent to the victim. The victim's external and possible internal injuries and symptoms as reflected in this investigation are consistent with someone being strangled. The elements of a felony (list crime) are present. I further encouraged the victim to seek medical attention and to carefully log her symptoms and injuries.

- If no visible injury was observed, please write: "I observed no visible injury at this time."
- If the victim used the word "choked or choking," ask the victim to describe exactly what that means to her.
- Continue to use the victim's words to describe strangulation throughout your report but in your final conclusion, use the proper term such as non-fatal strangulation and/or suffocation. For example, even though the victim used the word "choking" to describe pressure being applied to her neck, include in your report, "I know that the proper term is non-fatal strangulation not choking. Choking is usually accidental. Strangulation is intentional."
- Use a simple definition for strangulation in the report, such as: "Strangulation is external pressure applied to the neck by any means that blocks airflow and/or blood flow."

IV. Developing the Expertise of Police Officers and Investigators

Chapter 7, Using Experts: Tips for Prosecutors and Expert Witnesses, discusses the need for and use of experts in court to help jurors understand the seriousness of strangulation cases. Under Evidence Code section 801(a), expert testimony is routinely admissible where the "subject … is sufficiently beyond common experience that the opinion of an expert would assist the trier of fact." Expert witnesses can be used for various reasons, including teaching the jurors about medical, technical, or scientific principles or expressing an opinion after evaluating the significance of the facts of the case. For decades, police officers have been used as experts in drug cases, driving under the influence cases, and accident reconstruction.

Within the last 20 years, police officers have been routinely used as experts in domestic violence cases to explain why victims recant, why victims stay, power and control dynamics, the identification of the dominant aggressor, and the impact on children witnessing domestic violence. Officers regularly receive specialized training on domestic violence as a matter of law and as part of their training at the police academy, advanced officer training, specialized investigator courses, and much more. Additionally, the use of the carotid restraint may be part of core self-defense training at police academies. Specialized training in the investigation of strangulation cases started being offered to law enforcement in California in late 1995. Since 1996, the California Commission on Peace Officer Standards and Training (POST) has been incorporating strangulation training into all of its courses.

The first documented case where a domestic violence detective testified as an expert in a strangulation case was in June 2000, before the Honorable Judge Bonnie Dumanis in the San Diego County Municipal Court. Judge Dumanis allowed San Diego County Police Detective Mike Gulyas to testify in a misdemeanor strangulation case during the prosecutor's case-in-chief. Detective Gulyas testified he had received training on strangulation in 1996. Since 1996, he applied the training he had received to the

cases he investigated involving strangulation. Based on that training and experience, he was familiar with the signs and symptoms that are consistent with a victim being strangled. His testimony was admissible because it was based on his training and experience. The case resulted in a guilty verdict that was upheld on appeal.

Today, many law enforcement officers and investigators in California are routinely permitted to testify and share their expertise to help judges and jurors understand the signs and symptoms of non-fatal strangulation cases. In *People v. Birse*, Investigator Mike Wallace from Shasta County was permitted to testify as an expert in domestic violence dynamics where he provided general testimony about the cycle of violence; the behaviors of domestic violence victims in general; and how it is common for victims to recant.[46] He was also permitted to describe the mechanics of strangulation based on his training and experience in handling non-fatal strangulation cases. We are now seeing many dedicated and specially trained officers helping prosecutors win non-fatal strangulation cases in California and across the United States:

- ***State v. Supino* (Ct.App.Minn. 2009) 2009 WL 1515255 [unpublished]**, where a detective's testimony that strangulation does not necessarily result in external, physical injury was determined to be relevant.
- ***Carter v. State* (Ct.App.Alaska 2010) 235 P.3d 221**, where a state trooper qualified as an expert identifying petechiae and delayed bruising in strangulation victims.
- ***State v. Battle* (Ct.App.Miss. 2013) 415 S.W.3d 783,** where a detective was determined to be qualified to testify about the lack of visible injuries in the context of strangulation even though he was not a medical expert.
- ***Maxwell v. State* (Ct.App.Ga. 2019) 825 S.E.2d 420**, where an officer was permitted to testify about his specialized training in the use of the chokehold to explain how the victim was strangled and that strangulation could cause loss of consciousness and death.

Investigators who are currently developing their expertise in this area are encouraged to reach out to the California District Attorneys Association or the Training Institute on Strangulation Prevention to connect with the growing list of existing law enforcement experts in California.

Given the extent to which strangulation training is being incorporated at all levels of law enforcement, prosecutors should not be shy about asking police officers or investigators if they have been trained in strangulation and then make good use of that training and experience as part of their testimony in strangulation cases. If prosecutors do not ask law enforcement about their training and experience, officers are encouraged to speak up and let prosecutors know that they can provide more information about strangulation as part of the foundation of their testimony and investigation.

V. Conclusion

Tragic deaths by strangulation have led to dramatic changes in California and across the United States. Partnerships have been developing between the legal and medical community. Specialized training has been available since 1995. The specialized training in strangulation and/or suffocation is now

46. *People v. Birse* (2014) 2014 WL 5148191 [unpublished].

helping thousands of domestic violence professionals improve their investigation, documentation, and prosecution of non-fatal strangulation cases. As a result, many strangulation cases are being elevated to felony-level prosecution due to improved investigations. Cases once thought non-prosecutable are being routinely submitted for successful felony or misdemeanor prosecution. Law enforcement and prosecution protocols are being updated to reflect our current understanding of non-fatal strangulation and suffocation assaults. Individual police officers, prosecutors, advocates, doctors, nurses, probation officers, and elected officials have been champions of change by implementing our current law into practice. Training videos on strangulation have been developed by the Law Enforcement Television Network, the San Jose Police Department, POST, and the Institute and are being used to educate domestic violence professionals and even grand juries. By working together, police and prosecutors can make a difference by holding stranglers accountable for the crimes they are committing. Lives will be saved by thorough investigations that fully document the evidence and assist prosecutors in successfully prosecuting non-fatal strangulation cases in court.

ABOUT THE AUTHORS

Gael B. Strack *is the chief executive officer and co-founder of Alliance for HOPE International and oversees the Training Institute on Strangulation Prevention. In her spare time, she is an adjunct professor at California Western School of Law teaching a class on Domestic Violence and the Law. She is a nationally recognized expert on domestic violence, including strangulation, prosecution, and family justice centers. Prior to her current position, she served as the first director of the San Diego Family Justice Center, an assistant city attorney, a deputy public defender, and a deputy county counsel.*

Michael Agnew *was the lead domestic violence detective with the Fresno Police Department until his retirement in July 2011. He created the Domestic Violence Unit in 1996, which grew from two detectives and one victim advocate, to 10 detectives and two advocates. The unit currently reviews approximately 7,000 domestic violence police reports each year. In addition to serving as part of the Advisory Team for the Training Institute on Strangulation Prevention, he has developed several domestic violence courses for POST, which he teaches. He also participates as a trainer throughout California teaching on domestic violence-related topics to law enforcement, probation, prosecutors, and victim advocates.*

Joshua Helton *is a 13-year law enforcement veteran with a municipal agency in Northern California. As a peace officer, his work experience includes assignments as a patrol officer and a detective. Based on this experience, Joshua believes the most effective criminal justice responses occur when professionals collaborate to bring a multidisciplinary perspective to their work. He currently advocates for the use of evidence-based practices designed to enhance delivery of law enforcement services to survivors of child abuse, sexual assault, and intimate partner violence. Joshua's current projects involve work to improve the response to non-fatal strangulation assaults in his region and encourage increased use of modern, trauma-informed interviewing techniques by criminal justice practitioners. Joshua holds a Robert Pressley Institute of Criminal Investigation Specialty Certificate in Domestic Violence Investigation.*

Bill Hernandez *has been working at the Napa Police Department for over 21 years, where he has held multiple specialty assignments including corporal, field training officer, school resource officer, and program director for the Napa Children Exposed to Domestic Violence program. He is currently the domestic violence detective and grant director for the Law Enforcement Specialized Units Grant. Bill has served as the liaison between the Napa Police Department and NEWS, a domestic violence and sexual assault service provider, for the past 11 years. Bill has conducted multiple trainings for domestic violence advocates, Napa Child Welfare Services workers, police officers, probation officers, and community members about the dangers surrounding strangulation as well as the hazards of domestic violence and how it affects children and their brain development.*

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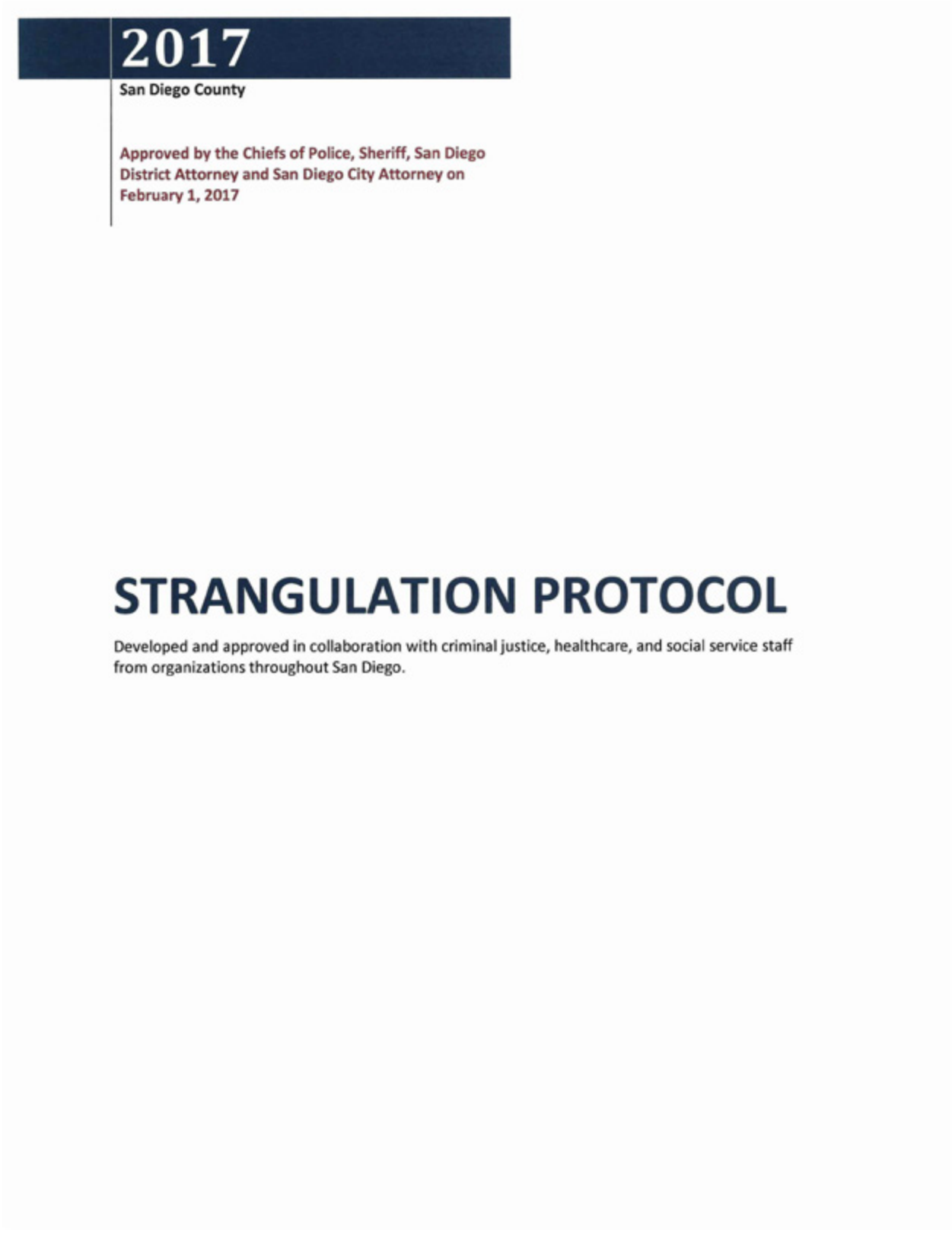
ATTACHMENT 3-1
The San Diego County Strangulation Protocol and Form



2017

San Diego County

Approved by the Chiefs of Police, Sheriff, San Diego District Attorney and San Diego City Attorney on February 1, 2017

STRANGULATION PROTOCOL

Developed and approved in collaboration with criminal justice, healthcare, and social service staff from organizations throughout San Diego.

OBJECTIVE

The San Diego County Strangulation Protocol is adopted to increase public safety, promote public health, and to ultimately save lives. By improving the detection and documentation of domestic violence strangulation cases, San Diego County can better assist victims and hold offenders accountable for these serious criminal acts.

This protocol is not intended to address every situation or every potential issue, nor is it intended to substitute for individual officer discretion or individual departmental policies that are consistent with state law.

INTRODUCTION

From 2008-2015 in San Diego County, the cause of death in 15% of domestic violence homicide cases involved the intimate partner victim being strangled or suffocated. Non-fatal strangulation is a significant risk factor for predicting future homicide in family abuse cases including domestic violence, elder abuse, and child abuse. Female survivors of non-fatal strangulation are more than 600% more likely to become a victim of attempted homicide and more than 700% more likely to become a victim of homicide.[1] Often, strangulation leaves no visible signs of injury. In a study of 300 strangulation cases in San Diego County, 50% of the cases had no visible injury at all, and in 35% of the cases, the injury was not sufficient to photograph.[2] In addition, many victims of strangulation don't receive the medical care they need. In the same study of 300 strangulation cases in San Diego, only 3% of the survivors in that study sought medical attention after being strangled. Comprehensive evidence collection and survivor interviews along with proper medical care can make a difference to the health and well-being of victims and by better holding perpetrators accountable.

The California Legislature recognizes strangulation as a serious threat to the health and well-being of the citizens of California. In 2012, California Penal Code section 273.5 was amended to specifically include injuries as a result of strangulation and suffocation as grounds for felony prosecution:

> Penal Code 273.5 (d): "…traumatic condition" means a condition of the body, such as a wound, or external or internal injury, including, but not limited to, *injury as a result of strangulation or suffocation*, whether of a minor or serious nature, caused by a physical force. For purposes of this section, *"strangulation" and "suffocation"*

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[1] Glass, N., Laughon, K., Campnell, J., Chair, A., Block, C., Hanson, G., Sharps, P. Taliaferro, E. (2009, Oct). Non-fatal strangulation is an important risk factor for homicide of women. *Journal of Emergency Medicine*, 35(3).

[2] Strack, G., Gwinn, C., Hawley, D., Green, W., Smock, B., & Riviello, R. (2014, Aug/Sept). Why Didn't Someone Tell Me? Health Consequences of Strangulation Assaults for Survivors. *Domestic Violence Report*, 19 (6), pp. 87-90.

include impeding the normal breathing or circulation of the blood of a person by applying pressure on the throat or neck." [Penal Code section 273.5(d)]

In 2016, San Diego County law enforcement professionals began a community dialogue about the dangers and health risks of domestic violence strangulation. This conversation involved looking inward at current practices and current responses to strangulation cases and determining where improvement could be made. After a series of meetings and input gathered from personnel across the county, this protocol developed.

PROTOCOL OVERVIEW

- San Diego County law enforcement professionals should be trained in the dangers of strangulation to victims and the potential symptomology that might indicate the need for emergency medical intervention.

- Dispatchers and 911 call operators taking calls of domestic violence should, where circumstances reasonably dictate, consider asking the caller if they were strangled or "choked."

- First responding law enforcement personnel should ask all questions included on the "*San Diego Countywide Domestic Violence Supplemental*" form, approved by the Chiefs of Police, Sheriff, San Diego District Attorney and San Diego City Attorney. Note that the amended version now includes a specific section and question pertaining to strangulation. (See Addendum A: *San Diego Countywide Domestic Violence Supplemental, page 2 of 2)*

- When law enforcement personnel learn strangulation may have been involved in the assault, it is strongly recommended *The San Diego County Strangulation Documentation Form* be completed. (See Addendum B: *San Diego Countywide Strangulation Documentation Form*)

- Strangulation, regardless of whether visible injuries are initially apparent, should be treated as a serious condition. Paramedics may need to be requested and medical evaluation should be strongly encouraged.

- Prosecutors should, when feasible and appropriate, consider felony issuance of strangulation cases.

- The San Diego City Attorney's office and the San Diego District Attorney's office will provide training resources and guidance as related to this protocol, and will

help agencies provide initial and ongoing training to their personnel. The scope of the training should initially include first responders, dispatchers, follow-up investigators, and prosecutors. In the future, agencies providing refresher training to their personnel may seek the assistance of their local prosecutors for training resources, expertise, and guidance.

DEFINITIONS

Strangulation: A form of asphyxia characterized by the intentional closure of blood vessels and/or air passages of the neck as a result of external pressure applied to the neck sufficient to cause disruption of blood flow to or from the brain or disruption of air exchange resulting in a lack of adequate oxygen delivery to the brain.

- **Manual Strangulation**: Use of the fingers or other extremity.
- **Ligature Strangulation**: Use of some form of cord-like object around the neck without suspension.
- **Strangulation by Hanging**: Use of some form of cord-like object around the neck with suspension.

Suffocation: The mechanical obstruction of airflow into the mouth and/or nostrils, as might occur by covering the mouth and nose with a hand, pillow, gag object or a plastic bag. Suffocation can be partial or complete, where partial indicates that the victim is able to inhale some (but not enough) air. In general, asphyxia due to suffocation requires at least partial obstruction of both nasal cavities and the mouth.

Asphyxia: A condition arising when the body is deprived of oxygen, causing unconsciousness and ultimately death.

Positional Asphyxiation: Asphyxia caused by compression of the face, neck, chest and/or abdomen sufficient to making it difficult or impossible to breathe (e.g. sitting on victim's chest).

Note: When strangulation and suffocation are combined, damage to the brain is accelerated which increases the chance of fatality.

"Choking" vs. "Strangulation": "Choking" refers to a physical obstruction of the windpipe (e.g. food) resulting in a blockage that prevents the normal flow of air. normal breathing. "Strangulation" is often an intentional form of abuse due to *external* pressure applied to the neck. Although victims or witnesses may use the term "choking" when describing an incident, law enforcement should be aware of this important distinction since many victims/witnesses frequently do not understand what the medical term "strangulation" entails. This is why it is imperative that a broad, open-ended question such as, "During the incident, did anyone put anything around or against your neck or face?," be asked during the initial investigation.

OVERVIEW OF STRANGULATION

Danger of Strangulation: Death or life threatening injuries can rapidly develop when the jugular veins, carotid arteries, and/or trachea are compressed with enough force to prevent blood or air flow, thus depriving the brain of oxygen. Death and serious health consequences from strangulation are also caused by: (1) Traumatic/swelling in the surrounding neck tissue that can close the airway; (2) Internal bleeding in the neck that can compress the airway or obstruct blood flow; (3) Fractured larynx or trachea that can cause airway obstruction or air leakage into the overlying tissues; (4) Stroke when blood clots from damaged blood vessels break off and travel to the brain; and (5) Lung damage.

Jugular Veins: Transport deoxygenated blood from the brain back to the heart. Pressure on these large vessels reduces blood return causing vascular congestion and smaller blood vessels can burst, which can lead to depressed respirations, unconsciousness and asphyxia. An adult can be rendered unconscious in 5-10 seconds with as little as 4.4 pounds per square inch (PSI) applied to the jugular veins.

Carotid Arteries: Supply oxygenated blood from the heart to the brain. Pressure on these vessels prevents blood flow to the brain and can stimulate the carotid sinus (a nerve sensor in the artery), which can cause dramatic slowing of the pulse. An adult can be rendered unconscious in 5-10 seconds with as little as 11 PSI of consistent pressure.[3]

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[3] DiMaio VJ and DiMaio D, Forensic Pathology, Second Edition. Boca Raton: CRC Press, 2001, pp. 245-236; Camps FE and Hunt AC, Pressure on the neck. *J Forens Med* 1959; 6:116-135, and Ikai M et al,. Physiological studies on choking in judo, in *Bulletin of the Association for Scientific Studies on Judo, Part 1, Studies in General*, 1958; pp. 1-12; Brouardel P, Cited in Polson CJ, Gee DJ, Knight B, *The Essentials of Forensic Medicine*. New York: Pergamon Press, 1985.

Trachea: Transports air/oxygen to the lungs. Pressure to the trachea blocks airflow and disrupts this process. Approximately 30 pounds per square inch of pressure (PSI) can compress and block an adult trachea.

Strangulation injuries are frequently not visible. Domestic Violence professionals must investigate further to gather evidence related to strangulation.

Visible Injuries: Although visible injuries are not often present, it is imperative to document any that do exist. Visible injuries can include but are not limited to:

- Vertical fingernail scratch marks on the victim – indication of self-inflicted defensive wounds. Victim attempts to release the suspect's grasp around the neck.
- Half-moon shaped abrasions, generally less than one centimeter in size, on the back of the victim's neck (potentially under the hair) may provide evidence the suspect's hands were wrapped around the neck.
- Bite marks on the suspect may indicate the victim's attempts to get the suspect to release his/her grip. The victim may *not* remember biting the suspect. Some bite areas may include the suspect's bicep(s), forearm(s), shoulder(s), and upper chest.
- Head injuries to the victim may happen when the suspect hits the victim's head on the floor or wall during strangulation.
- Swelling (edema) of the victim's neck, lips and/or tongue. Describe these in the narrative, as they may not photograph well.
- Bruising to the neck, such as a pressure point from the suspect's thumb(s) on the neck or from a ligature. Often this bruising does not appear right away and may appear as redness on the neck.
- Petechiae may be present in some cases. These are pin point red or red-purple non-blanching dots that may be seen on the earlobes, eyelids, eyes, lips, cheeks, behind the ears, or elsewhere on the face or neck. Petechiae are caused when the jugular vein is blocked by pressure and capillaries (tiny blood vessels) burst. This same phenomena can also occur in the brain of strangulation victims and they are therefore it is extremely important to document their presence.

Non-Visible Injuries: This evidence can be critical to the case, as visible injuries are often not present. It is important to ask victims about how they felt during the incident, after, and now, since experiences may change with time. Some victims may experience symptoms later.

- Ask about whether breathing changed or was affected, (e.g. shallow or rapid breathing.)
- Ask about dizziness, nausea, headaches, or feeling disoriented or faint.
- Ask about coughing, urination, defection, vomiting, or dry heaving.

- Ask whether the victim lost consciousness, blacked-out, felt limp, experienced head-throbbing, numbness or disorientation.
- Tenderness in neck, painful to swallow, sore or scratchy throat or any other pain.
- Note whether the victim's voice is raspy or hoarse.
- Ask about loss of hearing during or after strangulation or suffocation (e.g. muffled, ringing, gurgling, or it went silent).
- Ask about any changes to vision (e.g. saw stars, vision was blurry, room closed in).
- Ask about tingling in lips, arms, and legs.
- Ask whether the victim coughed up any blood.

It is important to also ask the victim to describe characteristics about the suspect during the assault. Questions can include but are not limited to:

- In what direction did the suspect look during the assault?
- What did the suspect look like while strangling you?
- Did the suspect threaten to hurt or harm you during the assault?
- What did the suspect say before, during and after the assault?

SAN DIEGO COUNTY LAW ENFORCEMENT RESPONSE TO DOMESTIC VIOLENCE STRANGULATION CASES

911 OPERATOR/DISPATCH

1. 911 operators taking calls of domestic violence incidents should consider when appropriate asking the caller if they were strangled or "choked."

2. Because incidents of strangulation can result in delayed medical complications, or death[4], dispatchers should consider the specific circumstances of each incident and evaluate the need to call for emergency medical aid. Circumstances that might indicate a need to call for emergency aid include, but are not necessarily limited to:

[4] Dooling EC, Richardson EP: Delayed Encephalopathy After Strangling: Arch Neurol 1976; 33; 196-199; Kuriloff DB, Pincus RL: Delayed Airway Obstruction and Neck Abscess Following Manual Strangulation. Ann Otol Rhinol Laryngol. 1989; 98:824-7;

- loss of breath or difficulty breathing
- loss of consciousness
- memory loss
- dizziness, nausea, headache, or disorientation during or after the incident
- vision loss or vision changes
- hearing loss or hearing changes
- voice changes or difficulty speaking
- coughing or difficulty swallowing or sensation of something in the throat
- sore throat
- urination or defecation
- problems with balance or coordination
- pain or stiffness to the neck

FIRST RESPONDER DUTIES

1. First responders to all domestic violence calls shall continue to ask the questions in the *San Diego Countywide Domestic Violence Supplemental* form, which now includes a specific section with a question pertaining to strangulation. (See Addendum A)

2. Because incidents of strangulation can result in delayed medical complications or death, first responders should carefully consider the specific circumstance of each incident and evaluate the need to call for emergency medical aid in all cases involving strangulation. Circumstances that might indicate a need to call for medical aid include, but are not necessarily limited to:

   - loss of breath or difficulty breathing
   - loss of consciousness
   - memory loss
   - dizziness, nausea, headache, or disorientation during or after the incident
   - vision loss or vision changes
   - hearing loss or hearing changes
   - voice changes or difficulty speaking
   - coughing or difficulty swallowing or sensation of something in the throat
   - sore throat
   - urination or defecation
   - problems with balance or coordination

- pain or stiffness to the neck

Many victims will decline medical aid. If there is an obvious concern for the victim's health, or if the strangulation just occurred, first responders should consider requesting paramedics regardless of the victim's desire. Upon medics' arrival, if the victim declines medical attention, it should be noted in the report. If the strangulation was non-recent (e.g. happened on a prior date), first responders should still strongly recommend the victim seek medical attention since late complications of strangulation are not unusual.

3. If the answer to the strangulation question on the San Diego Countywide DV Supplemental is "yes[5]," first responders should consider completing the San Diego Countywide Strangulation Documentation Form (see Addendum B) in order to document additional signs and symptoms of the strangulation. In some agencies this task may be followed-up with investigative personnel.

4. Refer the victim to a domestic violence advocacy agency and/or the San Diego Family Justice Center when feasible. (See addendums C and D for countywide domestic violence resources)

Documenting the victim's **emotional demeanor** is also important. Capture these observations on *The San Diego Countywide Domestic Violence Supplemental* and/or in the narrative of the police report.

Victims will often not seek medical treatment or wish to be transported to the Emergency Department. Stressing the potential for lethality of strangulation, both during and after the incident, is critical.

FOLLOW-UP INVESTIGATIONS

Follow-up is imperative in strangulation cases. Visible injuries may develop later or become apparent after the initial incident. Follow-up regarding non-visible injuries is critical as serious health issues or death can arise in a delayed fashion, without any visible signs on the body. When feasible, agencies should strive to obtain follow-up photographs shortly after the initial incident as needed and when appropriate. Law enforcement agencies may have different internal protocols, depending on the nature and size of the agency, but follow-up in strangulation cases should generally include:

[5] The new Countywide DV Supplemental Form has a specific section and question about Strangulation on the top of page 2 of 2.

1. Complete *The San Diego Countywide Strangulation Documentation Form*. When a detective or investigator is called to a strangulation scene, or during a follow-up investigation, the investigator should complete the *San Diego Countywide Strangulation Documentation Form* if not already completed by the first responding officer (see Addendum B). Even if the victim did not report strangulation to the dispatch or the first responder, strangulation may have nevertheless been involved in the assault but the victim did not think to report it. For instance, if the assault involved other forms of violence, such as hitting, kicking, shoving, beating, or use of weapons, the victim may not appreciate the significance of the strangulation and it may take a skilled follow-up investigator to elicit this important information.

2. Encourage medical care. Strangulation victims frequently decline medical care or say they will obtain it on their own. Investigative follow-up should include educating the victim about the non-visible signs of strangulation, the risks for late complications, (including stroke, airway obstruction and death) and strongly encourage medical evaluation.

3. Conduct a thorough, follow-up discussion about the prior history of violence including prior strangulation events. When strangulation is involved, it is important for the follow-up meeting with the victim to be thorough, and ideally face-to- face. The interview should include a discussion about the prior history of domestic violence, and the victim should be asked specifically about any prior history of strangulation or suffocation. When feasible, the investigating officer should encourage the victim to re-enact the strangulation on a doll-head, mannequin, or other simulated foam head and documented with photographs or video.

4. Refer the victim to a domestic violence advocacy agency and/or the San Diego Family Justice Center when feasible. (See example in Addendum C and D).

5. Submit strangulation cases for felony review. Cases that involve strangulation should be sent for felony review to the local prosecutorial agency. Consider felony charges such as PC 245(a)(4) (Felony Assault with Force Likely to Produce Great Bodily Injury or Death), PC 273.5 (Corporal Injury to an Intimate Partner), and PC 236/237 (Felony False Imprisonment). Investigators should consider notifying the District Attorney or City Attorney in cases that may need special handling, such as enhanced victim advocacy, or a referral to the three countywide regional High Risk Domestic Violence Case Response Teams (HRT's) and or South Bay's multidisciplinary team (MDT).

PROSECUTION RESPONSE

1. Prosecutors must become trained in the dangers, signs, and symptoms of strangulation cases.

2. Prosecutors, when legally appropriate, should consider filing strangulation cases as felonies per PC 245(a)(4), PC 273.5, and PC 236/237.

3. Prosecutors should, when possible, consult with medical professionals and utilize their testimony in court to assist in proving the "traumatic condition" element of PC 273.5 as well as the "Force likely to produce great bodily injury or death" requirement of PC 245(a)(4).

SOCIAL SERVICE/ADVOCACY

Victims may downplay strangulation, or not even recognize it as abuse. It is imperative victims receive referrals to local domestic violence services by law enforcement at the scene. See the Addendums C & D - Domestic Violence Resource Guides for referrals countywide.

ADDENDUMS

- **A: *San Diego Countywide Law Enforcement Supplemental***
- **B: *San Diego Countywide Strangulation Documentation Form***
- **C. *Domestic Violence Resource Guide (English)***
- **D. *Domestic Violence Resource Guide (Spanish)***

SAN DIEGO COUNTYWIDE DOMESTIC VIOLENCE SUPPLEMENTAL

CASE #:	Reporting Officer & ID#:

RELATIONSHIP BETWEEN SUSPECT & VICTIM

☐ Spouse ☐ Former Spouse ☐ Dating ☐ Formerly Dating ☐ Engaged ☐ Formerly Engaged ☐ Child in Common

☐ Cohabitants (not related to each other) ☐ Former Cohabitants

Length of relationship: _____ Year(s) _____ Months(s) If applicable, date relationship ended: _____

VICTIM	SUSPECT
VICTIM NAME (Last, First, Middle)	**SUSPECT NAME** (Last, First, Middle)
DATE OF BIRTH: M ☐ F ☐	**DATE OF BIRTH:** M ☐ F ☐

EMOTIONAL DEMEANOR UPON ARRIVAL

☐ Upset ☐ Crying ☐ Fearful ☐ Calm ☐ Angry

☐ Nervous ☐ Not at Scene ☐ Flat Affect

INJURIES

☐ Report of pain ☐ Bruise(s) ☐ Abrasion(s) ☐ Head injury

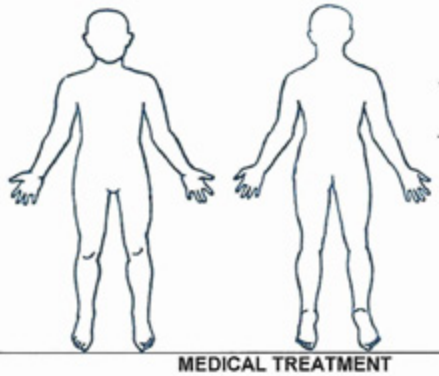
☐ Laceration(s) ☐ Possible broken bones ☐ Soreness

☐ Other:_____

Explain:_____

☐ No visible or reported injuries

☐ Draw location of injuries in diagram below



HT: _____

WT: _____

MEDICAL TREATMENT

☐ None ☐ First Aid Provided ☐ Declined Medical Aid ☐ Will Seek Own

Does Victim have Medical Insurance? ☐ Yes ☐ No

☐ Paramedic Response ☐ Transported to Hospital

☐ Hospital /Medic Unit: _____

☐ Medical Release Signed by Victim?

☐ Is Victim Pregnant? ☐ Yes ☐ No

SUBSTANCE ABUSE

Possible influence of:

☐ Alcohol ☐ Drugs ☐ Both ☐ None

☐ Symptoms observed: _____

History of Substance Abuse by Victim? ☐ Yes ☐ No

Sample Taken By: _____

Requested Preservation (Sample Taken at Hospital): ☐

EMOTIONAL DEMEANOR UPON ARRIVAL

☐ Upset ☐ Crying ☐ Fearful ☐ Calm ☐ Angry

☐ Nervous ☐ Not at Scene ☐ Flat Affect

INJURIES

☐ Report of pain ☐ Bruise(s) ☐ Abrasion(s) ☐ Head injury

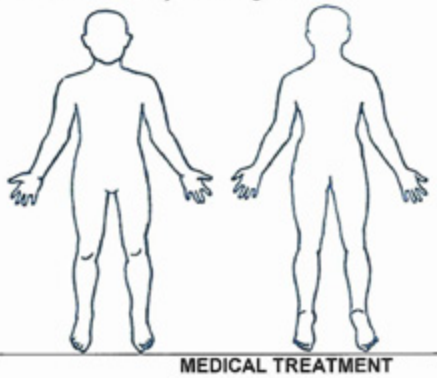
☐ Laceration(s) ☐ Possible broken bones ☐ Soreness

☐ Other:_____

Explain:_____

☐ No visible or reported injuries

☐ Draw location of injuries in diagram below



HT: _____

WT: _____

MEDICAL TREATMENT

☐ None ☐ First Aid Provided ☐ Declined Medical Aid ☐ Will Seek Own

Does Suspect have Medical Insurance? ☐ Yes ☐ No

☐ Paramedic Response ☐ Transported to Hospital

☐ Hospital /Medic Unit: _____

☐ Medical Release Signed by Suspect?

☐ Is Suspect Pregnant? ☐ Yes ☐ No

SUBSTANCE ABUSE

Possible influence of:

☐ Alcohol ☐ Drugs ☐ Both ☐ None

☐ Symptoms observed: _____

History of Substance Abuse by Suspect? ☐ Yes ☐ No

Sample Taken By: _____

Requested Preservation (Sample Taken at Hospital): ☐

Page 1 of 2

STRANGULATION

Did the suspect strangle or "choke" the victim ☐ Yes ☐ No

If yes, complete the Countywide Strangulation Documentation Form.

FIREARMS/DEADLY WEAPONS OWNED/USED/IMPOUNDED

Firearm(s)/deadly weapon(s) used during the incident? ☐ Yes ☐ No List/describe weapon(s) used: ______________________________

Does suspect have access to firearms? ☐ Yes ☐ No List/describe: ______________________________

Firearm(s)/deadly weapon(s) impounded per PC 18250? ☐ Yes ☐ No List/describe weapon(s) impounded: ______________________________

HISTORY OF ABUSE

Prior history of physical abuse/threats? ☐ Yes ☐ No Was this prior abuse/threats documented by law enforcement? ☐ Yes ☐ No

Approximate number of prior incidents: ______________ Case Number(s): ______________________________

Investigating Agency(s):______________________________

Previous abuse by suspect to victim: ☐ Threatened with weapons ☐ Threatened to kill victim or victim's children ☐ Constantly jealous

☐ Controls victim's daily activities ☐ Abuse has become more frequent ☐ Past strangulation ☐ Suspect is unemployed

If Yes to any of the above, describe this prior abuse (last, worst, first), approximate date(s), injuries, witnesses, etc. in report Narrative.

WITNESSES

Witnesses present during domestic violence? ☐ Yes ☐ No All witness statements taken? ☐ Yes ☐ No

Witness info listed in crime report? ☐ Yes ☐ No ***Include witness statements in Report***

CHILDREN PRESENT DURING INCIDENT

NAME	DOB				
NAME	DOB	☐ Male ☐ Female	☐ Present ☐ Witness ☐ Injured ☐ Interviewed	☐ Emotional Demeanor: ______________	☐ Child of victim ☐ Child of suspect ☐ Other: ________
NAME	DOB	☐ Male ☐ Female	☐ Present ☐ Witness ☐ Injured ☐ Interviewed	☐ Emotional Demeanor: ______________	☐ Child of victim ☐ Child of suspect ☐ Other: ________
NAME	DOB	☐ Male ☐ Female	☐ Present ☐ Witness ☐ Injured ☐ Interviewed	☐ Emotional Demeanor: ______________	☐ Child of victim ☐ Child of suspect ☐ Other: ________

More than three children present? ☐ Yes ☐ No **If Yes, list additional children in Report.**

CROSS REPORT TO CWS

Cross report to Child Welfare Services filed? ☐ Yes ☐ No

Note: Tell the CWS hotline worker whether drugs were involved in the incident, so that a Drug Endangered Children (DEC) referral may be made

EVIDENCE COLLECTED

Physical Evidence Collected (e.g. torn clothing, broken objects)? ☐ Yes ☐ No

Location Collected: ☐ Crime Scene ☐ Hospital ☐ Other: ______________

Photographs Taken? ☐ Victim ☐ Suspect Photographs Of: ☐ Crime Scene ☐ Physical Evidence ☐ Witness(es) ☐ Other: ____________

RESTRAINING ORDERS

TRO/RO on record? ☐ Yes ☐ No If Yes, Issuing court::______________________ ☐ TRO/RO No. ______________

Emergency Protective Order Issued? ☐ Yes ☐ No

VICTIM RESOURCES PROVIDED

☐ Incident or Crime Case Number ☐ Victim Advised of Right to Support Person ☐ Other: (Specify) ______________

☐ Domestic Violence Resource Guide ☐ Victim Advised of Right to EPO

Page 2 of 2

SAN DIEGO COUNTYWIDE STRANGULATION DOCUMENTATION FORM

VICTIM NAME (Last, First, Middle)	DATE OF BIRTH	M ☐ F ☐	CASE #
SUSPECT NAME (Last, First, Middle)	DATE OF BIRTH	M ☐ F ☐	

STRANGULATION EVENT QUESTIONS

- What did suspect use to strangle you? ☐ Left Hand ☐ Right Hand ☐ Two Hands ☐ Forearm ☐ Knee/Foot
  ☐ Other Object(s): _____
  ☐ *Describe manner/method in detail in narrative.*
- Estimate how long strangulation lasted: _____ Minute(s) _____ Second(s) Multiple Times: ☐ Yes # _____ ☐ No
- Estimate the amount of force suspect used to strangle: (1 = weak, 10 = very strong): ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐ 9 ☐ 10
- Describe suspect's emotional demeanor while strangling you: _____
- Describe the suspect's face/expression during strangulation: _____
- What did suspect say while strangling you? _____
- What else did suspect do while strangling you? _____
- Were you able to speak during the strangulation? ☐ Yes ☐ No If yes, what did you say? _____
- Did you do anything to attempt to physically stop the strangulation? ☐ Yes ☐ No Describe: _____
- What made the suspect stop? _____
- What did you think during the strangulation? _____
- Has suspect strangled you on other occasions? ☐ Yes ☐ No If yes, # of occasions: _____ When: _____

SYMPTOMS EXPERIENCED BY VICTIM

SYMPTOM	DURING	AFTER	SYMPTOM	DURING	AFTER	SYMPTOM	DURING	AFTER
Vision Changes: Tunnel	☐	☐	Coughing Blood	☐	☐	Hoarse Voice	☐	☐
Vision Changes: Spots	☐	☐	Nausea	☐	☐	Loss of Voice	☐	☐
Hearing Loss/Changes	☐	☐	Vomit/Dry Heaving	☐	☐	Whisper Voice	☐	☐
Loss of Consciousness	☐	☐	Dizziness	☐	☐	Neck Pain/Tender	☐	☐
Unable to Breathe	☐	☐	Headache	☐	☐	Trouble Swallowing	☐	☐
Difficulty Breathe	☐	☐	Feel Faint	☐	☐	Pain Swallowing	☐	☐
Rapid Breathing	☐	☐	Disorientation	☐	☐	Sore Throat	☐	☐
Pain While Breathing	☐	☐	Memory Loss	☐	☐	Urinate	☐	☐
Shallow Breathing	☐	☐	Painful to Speak	☐	☐	Defecate	☐	☐
Coughing	☐	☐	Raspy Voice	☐	☐	Other:	☐	☐

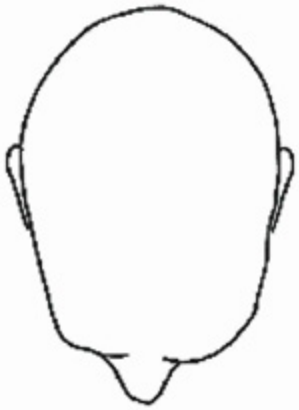
OFFICER OBSERVED INJURIES

FACE	EYES	NOSE	MOUTH
☐ Skin Red/Flushed ☐ Red Spots (e.g. petechiae) ☐ Scratches or Abrasions ☐ Swelling ☐ Bruising ☐ Other:	☐ Red Eye ☐ Left ☐ Right ☐ Red Spots in Eye ☐ Left ☐ Right ☐ Red Spots on Eyelid ☐ Left ☐ Right ☐ Blood in Eyeball ☐ Eyelid(s) drooping ☐ Other:	☐ Redness ☐ Red spots (i.e. petechiae) ☐ Scratches or Abrasions ☐ Swelling ☐ Bleeding ☐ Other:	☐ Swollen Lips ☐ Swollen Tongue ☐ Bruise(s) ☐ Scratches or Abrasions ☐ Red Spots in Palate or Gums, Etc. ☐ Other:
EARS	**UNDER CHIN**	**NECK**	**SHOULDERS**
☐ Redness ☐ Red spots (i.e. petechiae) ☐ Bleeding ☐ Bruising or Discoloration ☐ Swelling ☐ Red Spots Behind Ear(s) ☐ Bruising Behind Ear(s) ☐ Other:	☐ Redness ☐ Scratches or Abrasions ☐ Lacerations ☐ Bruises ☐ Linear Marks (e.g. fingernail marks) ☐ Other:	☐ Redness ☐ Scratches or Abrasions ☐ Bruises ☐ Linear Marks (e.g. fingernail marks) ☐ Ligature Marks ☐ Red Spots (e.g. petechiae) ☐ Swelling ☐ Other:	☐ Redness ☐ Scratches or Abrasions ☐ Lacerations ☐ Bruises ☐ Other:
HANDS, FINGERS, ARMS	**HEAD**	**CHEST**	
☐ Redness ☐ Bruising ☐ Swelling ☐ Scratches or Abrasions ☐ Broken Fingernails ☐ Other:	☐ Lumps/Bumps ☐ Lacerations ☐ Scratches or Abrasions ☐ Hair missing ☐ Red Spots on Scalp (e.g. petechiae) ☐ Other:	☐ Redness ☐ Scratches or Abrasions ☐ Lacerations ☐ Bruises ☐ Linear Marks (e.g. fingernail marks) ☐ Other:	

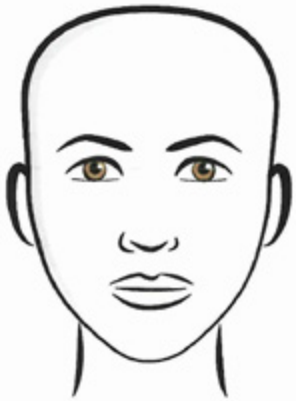
BODY DIAGRAMS

Draw all injuries observed

Top of Head



Front

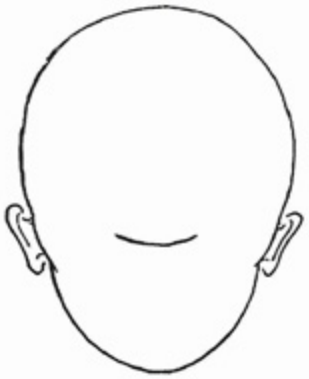


Neck & Chin

Left Side

Right Side

Back of Head



OFFICER CHECKLIST

- ☐ Photograph all injuries and physical evidence.
- ☐ If strangulation was done using an object, photograph and collect the object.
- ☐ Document where all evidence items were found.
- ☐ Determine if jewelry was worn by either party during the incident. If so, photograph it and, when feasible, look for pattern injuries.
- ☐ If defecation or urination in clothing, collect the clothing as evidence.
- ☐ If victim vomited, take photos of the vomit.
- ☐ Consider contacting duty detective.
- ☐ Take photographs of BOTH parties to document injuries and/or lack of injuries. Include hands, arms, face, chest, neck and all other areas the parties claim injury or physical contact occurred.
- ☐ Obtain evidence from hospital, if available, or follow-up to retrieve.

SAN DIEGO REGIONAL GUIDE
DOMESTIC VIOLENCE RESOURCES

SAN DIEGO DOMESTIC VIOLENCE

National Domestic Violence Hotline 1-800-799-SAFE (7233)

DOMESTIC VIOLENCE SERVICES AND SHELTERS

YWCA of San Diego County (Central)	619/234-3164
Center for Community Solutions (East County)	619/697-7477, 888/385-4657
Center for Community Solutions (North County)	760/747-6282, 888/385-4657
Community Resource Center (North County)	877/633-1112
Women's Resource Center (North County)	760/757-3500
Center for Community Solutions (Coastal)	858/272-5777, 888/385-4657
South Bay Community Services (South County)	800/640-2933, 619-420-3620

OTHER DOMESTIC VIOLENCE SERVICES *(Partial list)*

San Diego Family Justice Center (Central)	619/533-6000
Jewish Family Services – Project Sarah	858/637-3200
Southern Indian Health Council	619/445-1188
Indian Health Council	760/749-1410
License to Freedom	619/401-2800
Rancho Coastal Humane Society - Animal Safehouse Program (North County)	760/753-6413
Stalking Information Line (County of San Diego District Attorney's Office)	619/515-8900
Lesbian, Gay, Bisexual, Transgender, Questioning, (LGBTQ) Community Center	619/692-2077
San Diego City Attorney's Office, Victim Services Coordinators	619/533-5544

SD District Attorney's Office, Victim Assistance Program:
Central: 619/531-4041, East: 619/441-4538, Juvenile: 858/694-4595, South: 619/498-5650, North: 760/806-4079

OTHER HOTLINES *(Partial list)*

Access & Crisis Line (24 Hour)	888/724-7240
Children Welfare Services & the Child Abuse Hotline (24 Hour)	800/344-6000
Aging and Independence Services & Adult Protective Services(24 Hour)	800/510-2020
Center for Community Solutions - Sexual Assault Crisis Line (24 Hour)	888/385-4657
Lesbian, Gay, Bisexual, Transgender, Questioning (LGBTQ) Heidorn Crisis Line (24 Hour)	858/212-LIFE (5433)
National DV Crisis Intervention, Information and Referral (24 Hour)	800/799-SAFE (7233)
Rape, Abuse, Incest National Network (RAINN) Hotline (24 Hour)	800/656-HOPE (4673)
211 (24 Hour)	211 (cell 800-227-0997)
Meth Hotline	877/NO-2-METH (877-662-6384)

SPANISH SPEAKING AGENCIES (SE HABLA ESPAÑOL) *(Partial list)*

National Domestic Violence Hotline	800/799-7233
Access & Crisis 24-Hour Hotline	888/724-7240
Casa Familiar	619/428-1115
Chicano Federation of San Diego County, Inc.	619/285-5600
Rady Children's Hospital, Chadwick Center - Trauma Counseling Program	858/966-5803
North County Lifeline	760/726-4900
San Diego Family Justice Center	619/533-6000
South Bay Community Services 24-Hour Hotline and Services	800/640-2933

MILITARY RESOURCES *(Partial list)*

For referrals for family service and advocacy centers serving Camp Pendleton, MCAS Miramar, MCRD, Naval Base San Diego, NAS North Island, & Sub Base Fleet: Call Military OneSource at 800/342-9647 (24-hour hotline, not confidential)
You may call the Family Justice Center Military Liaison 619/533-3592 (confidential) or National DV Hotline 800/799-7233.

CHILDREN'S RESOURCES *(Partial list)*

Child Welfare Services & the Child Abuse Hotline	800/344-6000
District Attorney's Office Child Abduction Unit	619/531-4345
Rady Children's Hospital, Chadwick Center - Trauma Counseling Program (Main Center)	858/966-5803
Rady Children's Hospital, Chadwick Center - Trauma Counseling Program (South)	619/420-5611
Rady Children's Hospital, Chadwick Center - Trauma Counseling Program (North)	760/967-7082, opt 3

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SAFETY PLANNING

Page 2

Taking time to think about steps to increase your safety and the safety of your children is important, whether you have left, are considering leaving, or are currently in an abusive relationship. You may call a domestic violence advocacy agency to assist you in safety planning.

Call (800) 799-SAFE (800-799-7233) to speak with a confidential advocate or to be referred to an agency that specializes in domestic violence. You may also reference the Domestic Violence Service hotlines listed in the top section on Page 1. The National DV Hotline's website for safety planning ideas and steps for internet safety: http://www.thehotline.org/help/path-to-safety/

JAIL & PRISON NOTIFICATION

Inmates may be released at any time of the day. You may register an email address and/or telephone number(s) with VINE ("Victim Information and Notification Everyday") in order to be notified when an inmate is to be released, is pending release, or when they are to be transferred to a facility in another county or state prison. Call VINE toll-free at (877) 411-5588 or visit http://www.sdsheriff.net/victims to register online for this notification.

You may also visit "Who's in Jail" to see current custody status http://apps.sdsheriff.net/wij/wij.aspx.

The San Diego County District Attorney's Office offers an online resource providing information about a defendant's pending court appearance: http://www.sdcda.org/case/index.php

DOMESTIC VIOLENCE SHELTERS

There are shelters in San Diego County specifically geared to assisting domestic violence victims. In addition to housing and accommodations, most provide such services as support and information, legal assistance, and counseling. To contact Domestic Violence Services and Shelters, see that section of this guide for current shelter hotline numbers.

ORDERING POLICE REPORT(S)

Domestic Violence victims have a right to one free copy of their police report. Contact the responding law enforcement agency in the jurisdiction in which the incident occurred. Requests for reports can be made to most jurisdictions through the mail or in-person. The following information is necessary to request a report copy: name of the parties involved, date and location of incident, and the report number if available. Bring identification if you go in-person to pick up your report.

SAFE AT HOME – CONFIDENTIAL MAILING ADDRESS

Program participants are provided a confidential mailing address, at no cost, so that may use this instead of their home address. This *mail forwarding program* allows participants to safeguard their address when receiving first-class mail, opening a bank account, completing a confidential name change, filling out government documents, registering to vote, getting a driver's license, enrolling a child in school, and more. You may call toll-free at (877) 322-5227 or visit http://www.sos.ca.gov/safeathome/applicants-participants.htm for information and a local enrolling agency.

RESTRAINING ORDERS

You can file for a restraining order at no cost. There are also no cost domestic violence clinics available to assist you in the application process. For a list of updated TRO Clinics and Family Law Facilitators locations and hours visit following website: www.sdcourt.ca.gov and select the "Family" tab and then select "Domestic Violence." You may also visit www.sdsheriff.net/DV for more information on seeking a restraining order.

Arrive early. Be prepared to spend a minimum of one-half of a day to a full day at the court to obtain your restraining order. Arrive a minimum of two hours before the clinic closes. Space is limited at child care facilities at each court house. You are encouraged to make other child care arrangements.

Things to bring with you when you complete your paperwork, if available: Address of the person you would like restrained; date of birth for the person you would like restrained; physical description of the person you would like restrained; photographs of any injuries (if applicable); and a copy of the police report(s) if any.

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CONDADO DE SAN DIEGO - GUÍA DE RECURSOS
ASSISTENCIA DE VIOLENCIA DOMÉSTICA

Línea Directa Nacional de Violencia Doméstica 1-800-799-SAFE (7233)
24 horas, bilingüe, y confidencial

SERVICIOS DE VIOLENCIA DOMÉSTICA Y REFUGIOS *(No es lista completa)*

YWCA de San Diego (Central)	619/234-3164
Centro de Soluciones para la Comunidad (este del Condado)	619/697-7477, 888/385-4657
Centro de Soluciones Comunitarias (norte del Condado)	760/747-6282, 888/385-4657
Centro de Recursos Comunitarios (norte del Condado)	877/633-1112
Centro de Recursos para Mujeres (norte del Condado)	760/757-3500
Centro de Soluciones Comunitarias (área costera)	858/272-5777, 888/385-4657
South Bay Community Services (sur del Condado)	800/640-2933, 619-420-3620

OTROS SERVICIOS PARA VIOLENCIA DOMÉSTICA

Centro de Justicia Familiar (Central)	619/533-6000
Servicios para Familias Judías – 'Proyecto Sarah'	858/637-3200
Consejo de Salud del Sur para Indios Americanos	619/445-1188
Consejo de Salud para Indios Americanos	760/749-1410
Licencia a Libertad (License to Freedom)	619/401-2800
Rancho Coastal Humane Society - Programa de casa segura para animales (norte del condado)	760/753-6413
Línea de Información para Victimas de Acecho (Oficina del Fiscal del Distrito)	619/515-8900
Lesbianas, Gays, Bisexuales, Transgénero, en dudas (LGBT) Centro Comunitario	619/692-2077
Oficina del Fiscal de la Ciudad de San Diego, Coordinadores de Servicios a las Victimas	619/533-5544

SD Oficina del Fiscal del Distrito, el Programa de Asistencia a las Victimas:
Central: 619/531-4041, Este: 619/441-4538, Juvenil: 858/694-4595, Sur: 619/691-4539, Norte: 760/806-4079

OTRAS LÍNEAS DIRECTAS DE 24 HORAS:

Línea Directa Ayuda en Crisis y Suicidio (24 horas)	888/724-7240
Servicios de Bienestar Para Niños y Línea Directa de Reporte de Abuso a Menores (24 horas)	800/344-6000
Servicios para Adultos Mayores e Independientes; Servicios Protectores de Adultos (24 horas)	800/510-2020
Centro de Soluciones a la Comunidad – Línea de Crisis de Acoso Sexual (24 horas)	888/385-4657
Lesbianas, Gays, Bisexuales, Transgénero, en dudas, (LGBT) 'Heidorn' (24 horas)	858/212-LIFE (5433)
Información Nacional de Intervención de Crisis Violencia Domestica, Información y Referencia	800/799-SAFE (7233)
Línea Directa Nacional de Violación, Abuso e Incesto ('RAINN') (24 horas)	800/656-HOPE (4673)
211 (24 horas)	211 (celular 800-227-0997)
Línea Directa de Metanfetamina	877/NO-2-METH (877-662-6384)

AGENCIAS QUE HABLAN ESPAÑOL *(No es lista completa)*

Línea Directa para la Violencia Doméstica	888/DVLINKS (385-4657)
Línea Directa de 24 horas, Acceso y Crisis	888/724-7240
Casa Familiar	619/428-1115
Federación Chicana del Condado de San Diego	619/285 –5600)
Rady Children's Hospital, Chadwick Center- Programa de Trauma y Consejería	619/533-3529
North County Lifeline	760/726-4900
San Diego Centro de Justicia Familiar	619/533-6000
Línea Directa de 24 horas, South Bay Community Services	800/640-2933

RECURSOS PARA MILITARES *(no es lista completa)*

Para obtener referencias de servicios de familia y los centros de defensa que corresponden a Camp Pendleton, MCAS Miramar, MCRD, NAS North Island y Sub Base Fleet: llame a Military OneSource al 800/342-9647 (24 horas línea telefónica directa, no confidencial). Centro de Justicia Familiar de Enlace Militar 619/533-3592 (confidencial), o la Línea Directa para la Violencia Doméstica 800/799-7233.

RECURSOS PARA NIÑOS *(No es lista completa)*

Servicios de Bienestar Infantil & Línea Directa para reportar Abuso Infantil	800/344-6000
Oficina del Fiscal del Distrito, Unidad de Abducción de Niños	619/531-4345
Rady's, Hospital Infantil, Centro Chadwick -Programa de Trauma y Consejería (Centro Principal)	858/966-5803
Rady's, Hospital Infantil, Centro Chadwick -Programa de Trauma Y Consejería (Sur)	619/420-5611
Rady's, Hospital Infantil, Centro Chadwick -Programa de Trauma Y Consejería (Norte)	760/967-7082, opción 3

www.sddvc.org *Actualizado 12/12/16*

PLANES DE SEGURIDAD

Tomar tiempo para pensar en medidas que aumentan su seguridad y la seguridad de sus hijos es importante, especialmente si usted ha dejado, está pensando en dejar, o se encuentra en una relación abusiva. Puede llamar a una agencia de violencia doméstica para que le ayuden en la planificación de su seguridad.

Llame a (800) 799-SAFE (800-799-7233) para hablar con alguien confidencial o para una referencia a una agencia que se especializa en la violencia doméstica. También puede llamar las líneas directas de servicios de Violencia Domestica mencionadas en la parte superior de la Página 1. La página Web de la Línea Directa Nacional de Violencia Domestica, para obtener ideas de planificación de seguridad y otros pasos para seguridad del Internet es: http://www.thehotline.org/get-help/safety-planning/

NOTIFICACIÓN DE ENCARCELADOS

Los presos se pueden liberar en cualquier momento del día. Usted puede registrar una dirección de correo electrónico y/o número(s) de teléfono con VINE (Información de Victima y Notificación Diaria) para ser notificado cuando un preso debe ser liberado, está pendiente de liberarse, o cuando será transferido a una instalación en otro condado o prisión del estado. Llame a VINE gratis al (877) 411-5588 o visite http://www.sdsheriff.net/victims para registrarse en línea para esta notificación.
También puede visitar 'Who's in Jail' (Quien está en la cárcel) para ver el estado actual de custodia: http://apps.sdsheriff.net/wij/wij.aspx.
La Oficina del Fiscal del Distrito ofrece información en línea sobre es aspecto del tribunal pendiente de un acusado: http://www.sdcda.org/case/index.php.

REFUGIOS PARA VÍCTIMAS DE VIOLENCIA DOMÉSTICA

Hay refugios en el Condado de San Diego específicamente orientados a ayudar a las víctimas de violencia doméstica. Además de las viviendas y servicios, la mayoría proporcionan servicios tales como asistencia legal y consejería. Vea los números de teléfono bajo la sección Servicios de Violencia Domestica Y Refugios.

SOLICITAR LOS INFORMES DE LA POLICÍA

Las víctimas de violencia doméstica tienen derecho a una copia gratis de su informe de policía. Póngase en contacto con la agencia de policía que corresponda a la jurisdicción del incidente ocurrido. Las solicitudes de informes pueden hacerse a la mayoría de las jurisdicciones a través del correo o en persona. La siguiente información es necesaria para identificar el informe solicitado: Nombre de personas involucradas, la fecha y lugar de ocurrencia, y el número del informe si es disponible. Traiga una identificación si usted irá en persona a recoger a su informe.

SAFE AT HOME – DIRECCIÓN DE CORREO CONFIDENCIAL

A los participantes del programa se les proporcionan una dirección de correo confidencial, sin costo, para que pueda usar esto en lugar de su domicilio actual. Este programa de "Mail Forwarding" ayuda a los participantes mantener su confidencia al recibir correo de primera clase, abrir una cuenta bancaria, completar un cambio de nombre, llenar documentos del gobierno, registrarse para votar, para conseguir una licencia de manejar, matricular a un niño en la escuela, y más. Usted puede llamar el número telefónico gratis al (877) 322-5227 o visite a http://www.sos.ca.gov/safeathome/applicants-participants.htm para más información y la agencia local para inscribirse.

ORDENES DE RESTRICCIÓN

Usted puede solicitar una orden de restricción sin costo. También hay clínicas de violencia doméstica sin costo disponibles para ayudarle en el proceso de solicitud. Para obtener una lista actualizada de Clínicas 'TRO' y ubicaciones y horas de visita para Facilitadores de Derechos de Familia, visite la página web: www.sdcourt.ca.gov y seleccione "Familia" y a continuación seleccione "Violencia Doméstica." También puede visitar www.sdsheriff.net/DV para obtener más información sobre cómo solicitar una orden de restricción.

Llegue mínimo 2 horas antes de que la clínica se cierre. Esté preparado para pasar un mínimo de la mitad de un día a un día completo en la corte para obtener la orden de restricción. Espacio es limitado en las instalaciones de cuidado infantil en cada corte. Se le recomienda hacer otros arreglos para cuidado de niños.

Cosas para llevar con usted cuando usted completa su orden, si está disponible: la dirección de la persona que le gustaría ser restringida, fecha de nacimiento de la persona que le gustaría ser restringida, la descripción física de la persona que le gustaría ser restringida; fotografías de las lesiones (si corresponde); y una copia de informe(s) de policía, en su caso.

www.sddvc.org Actualizado 12/12/16

ATTACHMENT 3-2
Napa Police Department's Strangulation/Suffocation Questionnaire

Napa Police Department — Strangulation/Suffocation Questionnaire

Method/Manner: ❒ **One hand (R / L)** ❒ **Two hands** ❒ **Forearm** ❒ **Knee/Foot** ❒ **Chokehold** ❒ **Object** _____

Object brought to the scene? ❒ Yes ❒ No **Strangled multiple times**: ❒ Yes (#) ___ ❒ No

Victim's time estimation of strangulation: Min ___ Secs ___ **Pressure used**: (1 - weak 10 - strong) ____

Victim's time estimation of suffocation: Min ___ Secs ___ **Pressure used**: (1 - weak 10 - strong) ____

If object was used, what was it? _____ **Object photographed and collected**: ❒ Yes ❒ No

Medical attention ❒ Yes ❒ No **V reporting memory loss**? ❒ Yes ❒ No **Describe**: _____

Loss of consciousness? ❒ Yes ❒ No ❒ Unknown **Loss of hearing or vision?** ❒ Yes ❒ No **Change in voice?** ❒ Yes ❒ No

Petechiae observed? ❒ Yes ❒ No **Describe location(s):** _____

Was Victim shaken simultaneously while being strangled? ❒ Yes ❒ No **Other visible injuries?** ❒ Yes ❒ No

Victim trapped against wall/furniture/ground? ❒ Yes ❒ No **Describe**: _____

V/S Body Positions: _____

How did Victim's head/neck feel during and after? _____

Did victim urinate, defecate, or feel urge to one or both? ❒ Yes ❒ No **Describe**: _____

What did Suspect say during Strangulation/Suffocation? _____

What did Victim say during Strangulation/Suffocation? _____

What made S stop? _____ **Did V attempt to stop S**? ❒ Yes ❒ No **How**? _____

What did Victim think was going to happen during Strangulation/Suffocation? _____

Jewelery worn by either party: ❒ Yes ❒ No **Corresponding marks**: ❒ Yes ❒ No **Describe**: _____

Advised Victim to seek medical attention is symptoms worsen: ❒ Yes ❒ No

Advise Victim to not be alone for 24 hours. Who will they be with? _____ **Contact Number**: _____

Napa Police Department — Strangulation/Suffocation Questionnaire

Method/Manner: ❒ **One hand (R / L)** ❒ **Two hands** ❒ **Forearm** ❒ **Knee/Foot** ❒ **Chokehold** ❒ **Object** _____

Object brought to the scene? ❒ Yes ❒ No **Strangled multiple times**: ❒ Yes (#) ___ ❒ No

Victim's time estimation of strangulation: Min ___ Secs ___ **Pressure used**: (1 - weak 10 - strong) ____

Victim's time estimation of suffocation: Min ___ Secs ___ **Pressure used**: (1 - weak 10 - strong) ____

If object was used, what was it? _____ **Object photographed and collected**: ❒ Yes ❒ No

Medical attention ❒ Yes ❒ No **V reporting memory loss**? ❒ Yes ❒ No **Describe**: _____

Loss of consciousness? ❒ Yes ❒ No ❒ Unknown **Loss of hearing or vision?** ❒ Yes ❒ No **Change in voice?** ❒ Yes ❒ No

Petechiae observed? ❒ Yes ❒ No **Describe location(s):** _____

Was Victim shaken simultaneously while being strangled? ❒ Yes ❒ No **Other visible injuries?** ❒ Yes ❒ No

Victim trapped against wall/furniture/ground? ❒ Yes ❒ No **Describe**: _____

V/S Body Positions: _____

How did Victim's head/neck feel during and after? _____

Did victim urinate, defecate, or feel urge to one or both? ❒ Yes ❒ No **Describe**: _____

What did Suspect say during Strangulation/Suffocation? _____

What did Victim say during Strangulation/Suffocation? _____

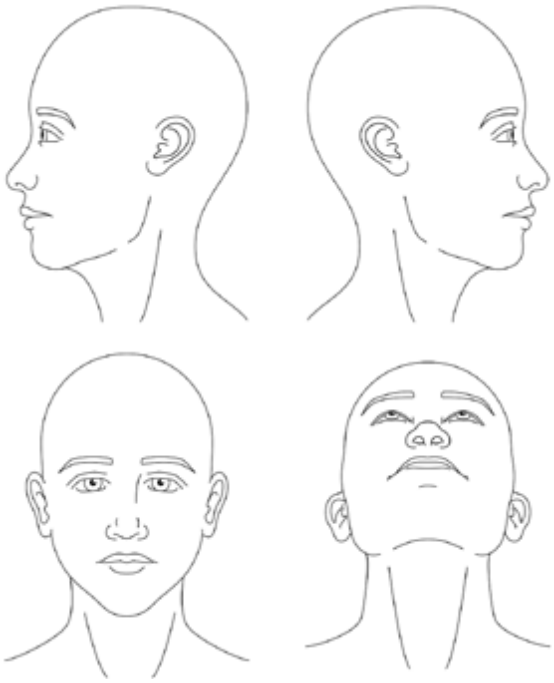
What made S stop? _____ **Did V attempt to stop S**? ❒ Yes ❒ No **How**? _____

What did Victim think was going to happen during Strangulation/Suffocation? _____

Jewelery worn by either party: ❒ Yes ❒ No **Corresponding marks**: ❒ Yes ❒ No **Describe**: _____

Advised Victim to seek medical attention is symptoms worsen: ❒ Yes ❒ No

Advise Victim to not be alone for 24 hours. Who will they be with? _____ **Contact Number**: _____

TAKE PHOTOGRAPHS — Diagram All Injuries on the Victim	
OFFICER CHECKLIST	
❒ Audio recording ❒ Photographs: Victim/Suspect/Scene/Objects ❒ Photograph injuries with and without scale ❒ Photograph demonstration of strangulation/ positioning on inanimate objects ❒ Previous incidents noted ❒ Collected necessary clothing ❒ Provided V with applicable documents/EPO ❒ Called DV advocate ❒ Confirmed methodology of all injuries ❒ Children witnesses listed in report ❒ Follow-up photographs scheduled	

TAKE PHOTOGRAPHS — Diagram All Injuries on the Victim	
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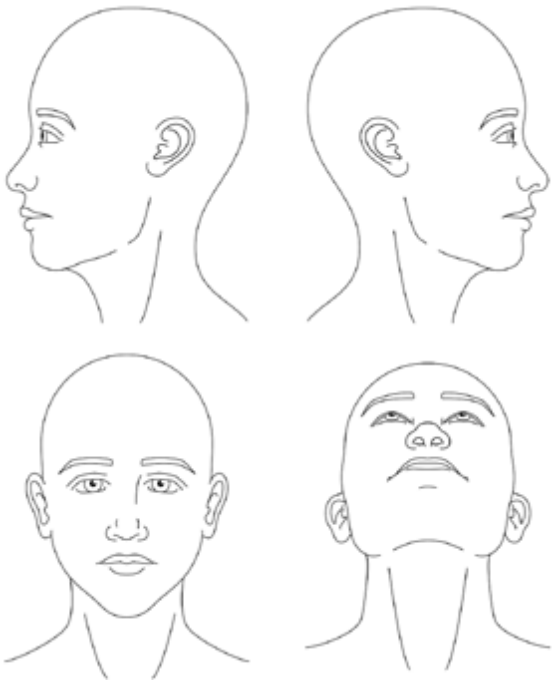
❒ Audio recording ❒ Photographs: Victim/Suspect/Scene/Objects ❒ Photograph injuries with and without scale ❒ Photograph demonstration of strangulation/ positioning on inanimate objects ❒ Previous incidents noted ❒ Collected necessary clothing ❒ Provided V with applicable documents/EPO ❒ Called DV advocate ❒ Confirmed methodology of all injuries ❒ Children witnesses listed in report ❒ Follow-up photographs scheduled	

ATTACHMENT 3-3: Fresno Police Department's Law Enforcement Brochure (Adapted)
STRANGULATION: A Quick Reference Guide

STRANGULATION is a form of asphyxia (lack of oxygen) characterized by closure of the blood vessels and/or passages of the neck as a result of external pressure on the neck. Based on the mechanism of attack and the victim's signs and symptoms, charge more than a PC § 243(e)(1). Absence of a visible injury is common. Consider PC §§ 273.5(a); 245(a)(4), 664, and 187.

Note the following Penal Code statutes (eff. 1/1/2018)

- **PC § 13701(*l*)**: The investigating officer shall provide in writing a statement informing the victim that strangulation may cause internal injuries and encouraging the victim to seek medical attention.
- **PC § 13730(c)(4)**: The report shall have a notation that strangulation or suffocation was involved.

STAGES OF STRANGULATION	
DISBELIEF	❑ The victim cannot believe she is being strangled. ❑ The assault is very short in duration.
PRIMAL	❑ The victim fights with whatever means to stop the strangling. *Ask the victim what she did to get away or stop the attack. This may explain some injuries.*
RESIGNATION	❑ The victim gives up, feeling she can do nothing, and goes limp. *Ask the victim what she was thinking about during the attack. What did she think was going to happen.*

SYMPTOMS

- Loss of consciousness
- Visual changes (spots, darkness)
- Involuntary urination or defecation
- Mental status changes
  - Restlessness or combativeness
  - Psychosis or amnesia
- Voice changes or complete loss
- Coughing/vomiting
- Difficulty swallowing
- Difficulty breathing
- Pain or tenderness on touch or movement

SIGNS

- Redness of the neck—may be fleeting
- Scratch marks—the victim's or the suspect's
- Bruises—may not immediately appear
- Fingertip bruises are circular, oval, and often faint
- Tiny red spots (petechiae) are ruptured capillaries. These are found anywhere above the area of constriction (jugular restriction).
- Blood red eyes are due to capillary rupture in the white portion of the eyes. May suggest a vigorous struggle or intermittent pressure.
- Swelling of the neck may be caused by any one or combination of the following: internal bleeding or an injury of any of the underlying neck structures.

INDICATORS OF LOSS OF CONSCIOUSNESS

- Loss of memory
- Standing, then waking up on the floor
- Unexplained bump on the head
- Bowel or bladder incontinence
- A witness to the loss of consciousness

VICTIMS WHO DECLINE MEDICAL CARE

- Discuss the warning signs.
- Encourage the victim to seek medical care.
- Ask if they have someone at home to monitor them?
- Tell the victim the next 24-48 hours are critical.
- Advise the victim to log any symptoms.

INTERVIEWING TRAUMA VICTIMS

Trauma physically changes the brain and memory. The hippocampus, where memory is stored is very sensitive to a lack of oxygen. Trauma ...

- Triggers chemicals.
- Chemicals influence perception, reaction, and memory.
- Memory becomes fragmented and is stored differently.

Ask the victim if she can remember. Note that the victim will remember more days later. Let her tell the story without interruption.

SCENE STRANGULATION QUESTIONS

- How do you feel now?
- Are you having any difficulty breathing?
- Does your voice sound any different?
- Describe how your throat feels now?
- Are you having any trouble swallowing?
- Can you tell me about any vision changes during the strangling?
- Can you describe how you were strangled? Can you demonstrate on this wig head for us?
- Was the strangling brief or lengthy? Could you estimate how long?
- How much pressure was used? Describe it on a scale of 1–10, and was it continuous?
- Do you recall what you were thinking about while you were being strangled?
- Can you describe how you felt during the strangling?
- Did you vomit, urinate, or defecate during this incident? Were you aware of when this happened or did you realize later?
- What did the suspect say to you if anything? Before? During? Afterwards?
- Did the suspect shake your neck?
- Were you held against a wall?
- What caused the suspect to stop?
- Was the person wearing any rings or other jewelery?
- Were you able to fight back at all?
- Do you notice anything different about your complexion now that is different than before the strangling (petechiae)?
- How many times has the suspect strangled you in the past? When? Where? What happened?

FOLLOW-UP QUESTIONS

- Tell me how you feel now.
- Have any new injuries appeared?
- Do you feel pain anywhere? Describe.
- Does your voice sound the same?
- Is there any different feeling when you eat? Describe.
- Does it feel any different when you swallow? Describe.
- What is different now than before the assault? Describe.
- Have you heard from the suspect?
- Tell me about what you remember about the assault. (You are trying to gather more details.)
- How can I contact you if you change your phone number or address?
- Has the suspect tried to strangle you in the past?
- Is there anything you want to talk about that we have not discussed?

COLLECTING EVIDENCE

- Photograph the victim's injuries and the entire area to include 8 camera angles at 360 degrees.
- Photograph the lack of injury and any areas where the victim feels pain.
- If an object was used, document where the object came from. Photograph, process, and book this item into evidence.

Information provided courtesy of
Dr. George McClane, Dr. Dean Hawley, Dr. Ralph Riviello, Dr. Bill Smock, and Gael B. Strack, JD

ATTACHMENT 3-4
The Strangulation Assessment Card

STRANGULATION
ASSESSMENT CARD

v 10.12.18

SIGNS

- Red eyes or spots (Petechiae)
- Neck swelling
- Nausea or vomiting
- Unsteady
- Loss or lapse of memory
- Urinated
- Defecated
- Possible loss of consciousness
- Ptosis – droopy eyelid
- Droopy face
- Seizure
- Tongue injury
- Lip injury
- Mental status changes
- Voice changes

SYMPTOMS

- Neck pain
- Jaw pain
- Scalp pain (from hair pulling)
- Sore throat
- Difficulty breathing
- Difficulty swallowing
- Vision changes (spots, tunnel vision, flashing lights)
- Hearing changes
- Light headedness
- Headache
- Weakness or numbness to arms or legs
- Voice changes

CHECKLIST

S **Scene & Safety**. Take in the scene. Make sure you and the victim are safe.

T **Trauma**. The victim is traumatized. Be kind. Ask: what do you remember? See? Feel? Hear? Think?

R **Reassure & Resources**. Reassure the victim that help is available and provide resources.

A **Assess**. Assess the victim for signs and symptoms of strangulation and TBI.

N **Notes**. Document your observations. Put victim statements in quotes.

G **Give**. Give the victim an advisal about delayed consequences.

L **Loss of Consciousness**. Victims may not remember. Lapse of memory? Change in location? Urination? Defecation?

E **Encourage**. Encourage medical attention or transport if life-threatening injuries exist.

TRANSPORT

If the victim is **Pregnant** or has life-threatening injuries which include:

- Difficulty breathing
- Loss of consciousness
- Difficulty swallowing
- Petechial hemorrhage
- Urinated
- Defecated
- Vision changes

DELAYED CONSEQUENCES

Victims may look fine and say they are fine, but just underneath the skin there would be internal injury and/or delayed complications. Internal injury may take a few hours to be appreciated. The victim may develop delayed swelling, hematomas, vocal cord immobility, displaced laryngeal fractures, fractured hyoid bone, airway obstruction, stroke or even delayed death from a carotid dissection, blood clot, respiratory complications, or anoxic brain damage.

Taliaferro, E., Hawley, D., McClane, G.E. & Strack, G. (2009). Strangulation in Intimate Partner Violence. *Intimate Partner Violence: A Health-Based Perspective.* Oxford University Press, Inc.

This project is supported all or in part by Grant No. 2014-TA-AX-K008 awarded by the Office on Violence Against Women, U.S. Dept. of Justice. The opinions, findings, conclusions, and recommendations expressed in this publication are those of the author(s) and do not necessarily reflect the views of the Department of Justice, Office on Violence Against Women.

ADVISAL TO PATIENT

- After a strangulation assault, you can experience internal injuries with a delayed onset of symptoms. These internal injuries can be serious or fatal.
- Stay with someone you trust for the first 24 hours and have them monitor your signs and symptoms.
- Seek medical attention or call 911 if you have any of the following symptoms: difficulty breathing, trouble swallowing, swelling to your neck, pain to your throat, hoarseness or voice changes, blurred vision, continuous or severe headaches, seizures, vomiting or persistent cough.
- The cost of your medical care may be covered by your state's victim compensation fund. An advocate can give you more information about this resource.
- The National Domestic Violence Hotline number is **1-800-799-SAFE.**

NOTICE TO MEDICAL PROVIDER

- The Medical Advisory Board of the Training Institute on Strangulation Prevention has developed recommendations for the radiologic evaluation of the adult strangulation victim. In patients with a history of a loss of consciousness, loss of bladder or bowel control, vision changes or petechial hemorrhage, medical providers should evaluate the carotid and vertebral arteries, bony/cartilaginous and soft tissue neck structures and the brain for injuries. A list of medical references is available at www.strangulationtraininginstitute.com
- Life-threatening injuries include evidence of petechial hemorrhage, loss of consciousness, urination, defecation and/or visual changes. If your patient exhibits any of the above symptoms, medical/radiographic evaluation is strongly recommended. Radiographic testing should include: a CT angiography of carotid/vertebral arteries (most sensitive and preferred study for vessel evaluation) or CT neck with contrast, or MRA/MRI of neck and brain. Strangled patients with arterial injuries can present with strokes months or years post-strangulation.
- ED/Hospital observation should be based on severity of symptoms and reliable home monitoring.
- Consult Neurology, Neurosurgery and/or Trauma Surgery for admission.
- Consider an ENT consult for laryngeal trauma with dysphonia, odynophagia, dyspnea.
- Discharge home with detailed instructions to return to ED if neurological signs/symptoms, dyspnea, dysphonia or odynophagia develops or worsens.

TRAINING INSTITUTE on STRANGULATION PREVENTION

StrangulationTrainingInstitute.com

ATTACHMENT 3-5
Strangulation Documentation Video Statement for Altered Voice

To be said by the victim:

"Today's date is _____ at _____AM/PM.

"On (date of strangulation) _____ (Suspect's first and last name) strangled me with his/her (hand/hands/rope)."

"My voice is now _____" (Scratchy/soft/lost/hurts to talk).

*If the victim is in pain, they can state their pain, physical symptoms, and/or pain level (0 no pain; 10 high pain).

**If the victim's voice is altered from normal, a simple statement like "This is not how my voice normally sounds" may be said. Once the victim's voice is normal, the victim can make the same above statement and then "This is my normal voice" or "My voice has now returned to normal."

The victim can also describe any pain they may be in regarding their neck/voice, trouble swallowing, etc.

Continued every few days or once a week until the victim's voice returns to normal and the victim's "normal voice" is captured on video. If pain or swallowing continues past the time of the victim's voice returning to normal, a simple statement of that can be made as well. A lengthy recording is not required.

Save each statement as a separate computer file or on a separate disc. Use a Sharpie to mark right on the disc the date, camera operator's name, and the victim's initials. Please note in the victim's file that the recording(s) were made and their location.

Prosecuting Strangulation Cases

Gerald W. Fineman, J.D.

Editor's Note: Although CDAA always strives to be gender-neutral, strangulation is a very gendered crime. In an effort to not misrepresent this, victims in this manual are referred to as female, while the defendants are referred to as male unless otherwise noted.

I. Introduction

In some respects, prosecuting strangulation remains similar to prosecuting other types of domestic violence. These cases rely on two key elements for successful prosecution: (1) make the case more dependent on the evidence than it is upon the testimony of the victim and (2) develop as much corroborating evidence as possible. Strangulation prosecution requires the additional need to explain and emphasize the seriousness of the act often in the absence of visible external injury. Accomplishing this requires using expert testimony. Vertical prosecution by specially trained prosecutors can greatly improve the probability for a successful prosecution.

A. Initial Investigation

The initial investigation of strangulation cases falls outside the prosecutor's direct control, but that does not prohibit prosecutors from influencing the way law enforcement conducts the initial case investigation. Prosecutors possess both the ability and responsibility to collaborate with law enforcement in developing an effective response.

Depending upon the resources available in a particular jurisdiction, consider modifying response protocols to include:

- mandating paramedic responses;
- recording statements by the victim;
- interviewing all witnesses;
- taking the defendant's statement;
- photographing the crime scene and documenting injuries or a lack of visible injuries;
- collecting any evidence left by law enforcement;
- 911 or other calls to law enforcement;
- medical records;
- evidence of prior acts;
- police reports; and
- restraining orders or other family law paperwork.

B. Pre-Filing Contact with the Victim

Victims recant, minimize, and avoid coming to court. Early victim contact helps limit this behavior. Still, prosecutors should not assume the victim will be available and willing to

cooperate with the prosecution of the case. In non-fatal strangulation, prosecutors should approach the case as if the defendant had been successful in killing the victim, because homicide cases are always prosecuted without a victim. If you can prove your case independent of the victim coming to court to testify, then you have a very solid case. However, this emphasis on evidence-based prosecution should not limit you from obtaining information from the victim. Post-incident contact creates the opportunity to gather additional evidence.

C. Follow-Up Investigation

Because the initial investigation may fail to uncover clear, visible evidence of injury, successful strangulation prosecution demands follow-up investigation with the victim. In some jurisdictions, law enforcement provides this investigation, but in many jurisdictions, the existence of any follow-up investigation falls upon the prosecutor's office. If your jurisdiction cannot allow for pre-filing interviews, the investigation conducted by law enforcement becomes even more critical in the filing determination. California law entitles the victim to have an advocate and a support person present at the follow-up interview.[1] Early contact informs victims about their rights and the court process. The interview creates an excellent opportunity to provide victims with information regarding their case and dispel misinformation.

The follow-up interview also provides an opportunity for prosecutors to collect evidence missed during the initial investigation and gain a glimpse into the power and control involved in the relationship. The interview helps to better document prior instances of domestic violence. It identifies issues involving the victim's ability to cooperate with prosecution efforts. Even where law enforcement conducts a thorough investigation, evidence that initially seemed irrelevant gains meaning. If the victim has not adequately described the incident, this provides a good time to get that description. If you have the victim describe the incident, consider using a mannequin, wig head, or diagram.

D. Medical Examinations

One of the best methods of collecting evidence for the prosecution is through a medical examination of the victim. Properly trained medical personnel can provide not only emergency medical treatment, but careful diagnosis of the victim and documentation of physical signs and symptoms. Alternate light sources, laryngoscopy, CAT scans, MRIs, and other medical tools not only document evidence of the strangulation, but also provide life-saving diagnostics. Work closely with medical providers to develop effective protocols to document and treat strangulation victims. The importance of the victim receiving proper treatment and documentation of injuries outweighs any concern of obtaining potential exculpatory evidence. Whether an item of evidence is favorable to the prosecution or to the defense turns on the argument of the lawyers and not the evidence itself.[2]

1. Pen. Code §§ 679.04 [sexual assault victims]; 679.05 [domestic violence victims]. This also relates to a victim's right to be free from unnecessary harassment as set forth in the California Constitution, art. I, § 28(b)(1) [Marsy's Law].
2. *Brady v. Maryland* (1963) 373 U.S. 83.

E. Photo Documentation and Voice Recordings

Because the injuries caused during a strangulation attack may prove difficult to recognize, take follow-up photographs over a period of time. This helps differentiate petechiae from other red spots on the face, show changes in skin hue, and documents swelling and swelling reduction. A voice recording of the victim demonstrates changes in voice and speech patterns. It may be helpful to obtain a copy of any voice message left by the victim prior to the strangulation for comparison to the post-strangulation voice.

F. Victim Advocacy

Advocacy is an important part of the victim follow-up process. This is your opportunity to inform the victim about safety options and assess any potential danger to the victim. Victim advocacy is discussed in detail in Chapter 8: Victim Advocacy in Strangulation Cases.

G. Identification of Other Witnesses

After the initial trauma of the crime subsides, the victim will be in a better position to recount what occurred. At the time of the incident, and afterwards, victims relay the incident with neighbors, close friends, relatives, or report the incident as a justification for missing employment. The combination of trauma and absence of oxygen to the brain can impact victim accuracy in recalling the incident. Document who the victim has seen since the incident. Follow-up interviews with those individuals provides evidence that the victim was acting or speaking differently after the incident than he or she normally behaves. If emergency personnel transported the victim to a medical facility, obtain the records of paramedics and interview the involved personnel. The victim's statements in the course of the emergency are later admissible at trial, even over the defendant's right of confrontation.

II. The Filing Decision

The California Constitution guarantees victims the right to a prompt decision regarding the filing of cases and the right to be informed of that decision.[3] Speed can protect the victim and help break the abuser's control over the victim. The evidence in strangulation cases can be lost quickly. Because of their lethality and the evanescent nature of the evidence, strangulation cases should have priority review.

A. Protocols and Policies

A case should not be filed unless there is a reasonable likelihood of conviction based upon the state of the evidence.[4] Nothing in this section overrides that guideline. Prosecutors also need to be aware of any filing protocols within their own office. There are several factors to consider when making the determination to file. Recognize that the lack of injuries causes prosecutors

3. Cal. Const. art. I, § 28.
4. Los Angeles County District Attorneys Association, *Uniform Crime Charging Manual* (UCC) (2017) <*https://www.cdaa.org/wp-content/uploads/April-2017-UCC.pdf*> (accessed Aug. 31, 2020) [member login required].

to minimize the severity of the incident. Also recognize that the existence of an injury does not necessarily identify the abuser or victim. Identifying the dominant aggressor is an important aspect of strangulation case evaluation. The batterer may have numerous cuts, scratches, bite marks, or other injuries inflicted by the victim as a direct response to being strangled by the abuser. This creates a misperception that the party with the visible injury must be the victim. This oversimplification can lead to the filing of charges against actual victims, leaving them unprotected against their abuser.

B. Victim Cooperation

Can you prove the case without the victim? Use the theme of "treat the case like a homicide so it doesn't become a homicide." If the defendant was successful in his efforts to strangle the victim to death, there would be no victim in court. Assume you do not have a victim. The victim may go into hiding, become uncooperative, or come to court and be held in contempt for refusing to testify. If any of these things occur, consider how you will establish the case. A solid investigation allows you to proceed without the victim. Examine the physical evidence and any statements made by the batterer. Look for pieces of non-testimonial hearsay evidence that might be admissible as a spontaneous statement or otherwise admissible hearsay. Remember that the confrontation right is a trial right that can be overcome if the statement is non-testimonial and otherwise admissible.[5]

C. The Victim's Attitude Toward the Prosecution

As long as the case can be proven without the victim's testimony, the victim's attitude toward the prosecution of the case does not impact the charging decision. If the case cannot be established without the victim's testimony, identify the victim's attitude toward the prosecution of the case and investigate why the attitude has changed. Victim advocacy can address the reason for the victim's refusal to cooperate. If the victim is being coerced into not cooperating, this may give rise to a claim of forfeiture by wrongdoing.[6]

D. Choice of Charges

California strangulation legislation is incorporated into Penal Code section 273.5, which does require some type of traumatic condition. Section 273.5(d) defines "traumatic condition" as "a condition of the body, such as a wound, or external or internal injury, including, but not limited to, injury as a result of strangulation or suffocation, whether of a minor or serious nature, caused by a physical force."[7] The defendant needs to inflict the injury. While domestic violence is a general intent crime,[8] the defendant still needs to have caused the injury. In *People v. Jackson*, the court found the defendant did not inflict injury upon the victim where the victim injured herself when she tripped over a curb while fleeing from the defendant.[9] The court goes on to say

5. See *Crawford v. Washington* (2004) 541 U.S. 36; *Davis v. Washington* (2006) 547 U.S. 813.
6. Evid. Code § 1390.
7. See *People v. Abrego* (1993) 21 Cal.App.4th 133, 136 [cert. for part. pub.].
8. *People v. Thurston* (1999) 71 Cal.App.4th 1050.
9. *People v. Jackson* (2000) 77 Cal.App.4th 574.

that for the conduct to constitute a violation of section 273.5, the defendant's actions must result from direct contact by the defendant.[10]

E. Continuous Course of Conduct or Multiple Charges

Two cases address the issue of domestic violence as a continuous course of conduct. In *People v. Thompson*, the court found that section 273.5 can cover a continuous course of conduct.[11] The *Thompson* decision does not preclude the charging of multiple domestic violence incidents. In *People v. Healy*, the court ruled that prosecutors may still charge multiple acts of domestic violence as separate incidents, provided that each act meets the elements of section 273.5.[12] With the *Healy* decision in mind, prosecutors should consider charging strangulation as a separate crime when there are additional incidents of section 273.5.

Section 273.5 is not the exclusive charge in a case involving strangulation. A number of other criminal charges may also be appropriate:

- Penal Code § 664/187—Attempted Murder
- Penal Code § 664/273.5[13]—Attempted Willful Infliction of Corporal Injury
- Penal Code § 206—Torture
- Penal Code § 245(a)(4)—Assault with Force Likely to Cause Great Bodily Injury
- Penal Code § 243(d)—Battery
- Penal Code § 211—Robbery
- Penal Code § 422—Making a Criminal Threat
- Penal Code § 136.1—Intimidation of a Witness or Victim
- Penal Code § 368—Crime Committed Against an Elder or Dependent Adult
- Penal Code § 459—First-Degree Burglary
- Penal Code § 646.9—Stalking
- Penal Code § 602—Misdemeanor Trespassing
- Penal Code § 487—Grand Theft
- Penal Code § 597—Cruelty to Animals
- Penal Code § 243(e)(1)—Spousal Battery
- Penal Code § 273a—Willful Harm or Injury to a Child
- Penal Code § 594—Vandalism
- Penal Code § 273.6—Intentional Violation of a Court Order
- Penal Code § 653m—Using Telephone Calls or Electronic Communication to Annoy
- Penal Code § 591—Maliciously Taking Down/Obstructing a Telephone Line
- Penal Code § 591.5—Maliciously Destroying a Wireless Communication Device
- Various sex offenses

The list could continue indefinitely. The point is that strangulation is often one component of a series of domestic violence and other criminal offenses.

10. *Id.* at 580.
11. *People v. Thompson* (1984) 160 Cal.App.3d 220 [cert. for part. pub.].
12. *People v. Healy* (1993) 14 Cal.App.4th 1137 [cert. for part. pub.].
13. *Id.*

F. Felony or Misdemeanor Charges

In a continuum of violence, strangulation falls just short of homicide. The seriousness of the offense cannot be overemphasized. For this reason, strongly consider filing all strangulation cases as felony conduct.

G. Enhancements

In addition to the substantive charges, prosecutors should also consider if any enhancements are applicable such as great bodily injury and/or coma.

H. Setting Bail and Other Safety Measures

Bail provides several opportunities for the prosecution to impact the batterer. First, setting bail helps prevent the abuser from exerting power and control over the victim. Second, establishing bail that keeps the victim safe from the abuser empowers the victim to seek a resolution of the relationship. In setting bail, remember that the safety of the public and the victim is paramount.

The bail hearing also provides an excellent opportunity to educate the bench regarding the lethality of strangulation. Consider calling a strangulation expert at this stage of the proceedings. If your office is in the process of developing expert witness testimony for strangulation cases, the bail hearing provides a testing ground for assessing the strength of your expert. Do not forget to consider other protective measures such as criminal protective orders.

I. Preliminary Hearing

The preliminary hearing provides another opportunity to break the power and control of the abuser. The lower standard of evidence and the use of hearsay evidence at a preliminary hearing make it relatively easy for the prosecution to present its case and obtain a holding order. This may be sufficient to demonstrate to the victim that the batterer is being held accountable and can demonstrate to the abuser that there will be a consequence for the incident. Although the preliminary hearing allows for hearsay, testimony should also be obtained from the victim. This helps ensure that the victim's statements will be admissible at trial, even if the victim should become unavailable as a witness, since the defendant will be afforded the opportunity to confront him or her. The decision to present victim testimony must be analyzed in each case.

The prosecution needs to demonstrate the seriousness of the incident or risk the case being reduced to a misdemeanor under section 17(b). Failure to make an adequate record may allow the defense to seek a dismissal under section 995. For these reasons, include evidence from an expert witness in the area of strangulation. This testimony will establish the seriousness of the incident, as well as the injury to the victim.

III. Case Preparation

Electronic evidence is prevalent today, and prosecutors can gain valuable evidence by collecting body worn camera footage, cell phone data, text messages, social media posts, and other forms of electronic data. If the defendant is in custody, jail calls and jail mail provide evidence of admissions, victim intimidation, and forfeiture by wrongdoing. Collecting this evidence becomes especially critical as the trial approaches and the batterer's need to dissuade the victim increases.

A. Eliminating Defenses

Strangulation cases have a series of potential defenses that typically arise. Adequate preparation involves being able to address each defense:

1. *The victim self-inflicted*. If the victim has readily apparent visible injuries, the defense can claim that the victim self-inflicted the injuries. The defense plays this off as a victim who is vindictive for some reason. The victim inflicts her own injuries and then contacts law enforcement in an effort to make the defendant suffer. Two areas of preparation are required to counter this defense. First, research and then eliminate potential reasons for the victim to fabricate the claim. Second, use expert witness testimony to explain how the victim's injuries resulted from the defendant inflicting them or the victim acting in self-defense against the defendant's attack.

2. *The victim likes to be strangled*. Another claim that may arise is that the victim and defendant engage in strangulation as a consensual activity, likely intertwined with some type of sexual behavior. Again, pre-trial investigation eliminates this defense. The location of the incident and the absence of any sex toys, bondage tools, erotica, or other related instruments can be useful in defeating this defense. If this was consensual activity, the victim would not be reporting it. Additionally, strangulation is an offense involving the use of deadly force likely to cause great bodily injury. This level of violence falls outside the realm of consent.[14]

3. *The injury was an accident*. This defense involves the defendant claiming the strangulation occurred through some mistaken action. The defendant was trying to calm the victim and his hands—meant to be placed on her shoulders—accidentally slipped to her neck, the defendant/victim fell into the grasp of the hands, or some other form of seemingly innocent explanation. This defense can be defeated with a detailed account during the initial interview or the follow-up investigation. Is the conduct described by the defendant consistent with the injuries received by the victim? When there is an accident, there is usually an apology after the accident. Was there any indication of this?

4. *The defendant acted in self-defense/mutual combat/dominant aggressor*. This defense may be combined in some form with the other defenses. Under this theory, the defendant was using force to combat or defend against attack by the victim. Prosecutors sometimes mistakenly believe that the only way to introduce this type of defense is through the defendant's testimony. This is incorrect. The victim may recant and give this as an explanation for what

14. See *People v. Samuels* (1967) 250 Cal.App.2d 501, 513–514.

occurred, i.e., "Everything I told the officer was correct, except it all occurred after I attacked the defendant." Countering this defense requires a detailed investigation by law enforcement.

5. *No visible injury means no injury*. Perhaps one of the most common defenses involves claiming that the absence of a visible external injury means that the victim received no injury. This type of defense clearly calls for expert testimony to rebut the claim.

B. Getting the Victim to Court

A key piece of preparation involves either getting the victim to court or showing due diligence in trying to get her to court. This problem is eliminated if the case can be prosecuted without the victim's courtroom testimony. If this is not the case, conduct early efforts to subpoena the victim. The court may also order the victim back or the victim may be placed on call.[15] A material witness bond may be sought in order to obtain the victim's attendance.[16] Prosecutors should strongly consider the implications of proceeding in this manner. You are incarcerating a victim of a crime in order to make that victim available for courtroom testimony. There are issues of re-victimization and issues of affecting the cooperation of the victim as well. This is not a preferred method of proceeding and should be discussed at a high level before undertaking this process. While a victim may not be incarcerated as a sanction for refusing to testify, the victim may be incarcerated for failing to respond to a valid subpoena.[17]

C. Pre-Trial Motions

Prepare for the admission of expert testimony by providing notice of the expert, the expert's curriculum vitae, and statements from the expert.[18] In jurisdictions where several expert witnesses may share duties of testifying on strangulation, it is prudent to provide this information from all the experts. That way, if one expert becomes unavailable on the date of trial, another expert can still be called without the defense claiming a lack of notice or discovery. Prosecutors should also prepare for a 402 hearing with the expert witness. This is covered more thoroughly in Chapter 7: Using Experts: Tips for Prosecutors and Expert Witnesses.

D. Motion for Conditional Examination of the Witness

In both felony and misdemeanor domestic violence cases, a motion for a conditional examination helps preserve victim testimony if there is evidence the victim's life is in jeopardy,[19] or if there is evidence that a victim or material witness has been or is being dissuaded by the defendant or any person acting on behalf of the defendant.[20]

15. Pen. Code § 1331.5.
16. Pen. Code § 1332.
17. See *People v. Cogswell* (2010) 48 Cal.4th 467.
18. Pen. Code § 1054.1.
19. Pen. Code § 1335(b).
20. Pen. Code § 1335(c).

E. Voir Dire

Jury selection in a strangulation case involves many of the same issues as in other forms of domestic violence. You need to reflect on how potential jurors will react to issues in the case. Verbalize jury bias and attitude that may exist about domestic violence. These may include things such as:

- Absence of the victim means there is no case.
- Absence of victim cooperation with the prosecution means the crime did not occur.
- If the victim minimizes or recants, the crime did not occur.
- Two different versions from the victim means there is reasonable doubt.
- Victims who stay in a relationship deserve what they get.
- Same sex victims are not entitled to protection of "domestic violence" laws.

In addition to the more traditional topics of domestic violence jury selection, jurors in strangulation cases may have other misperceptions, including:

- Strangulation and choking are the same thing.
- Strangulation for a short period is not serious.
- Strangulation is only serious if the victim loses consciousness.
- Strangulation does not occur if the victim can still breathe.
- There will be ligature marks if there is any type of strangulation.
- Strangulation does not have any real long-term effects.
- Absence of visible external injury does not mean there is no internal injury.

Prosecutors can also use voir dire as an opportunity to shift the focus of the case toward the batterer and away from victim. Another goal of voir dire is to lower the jury's expectations regarding the level of violence required to violate the law.

F. Juror Acceptance of Experts

The necessity of expert testimony requires jurors who will accept such testimony. This issue becomes more critical if your expert lacks the traditional earmarks of expertise, such as a Ph.D. or M.D. An expert is anyone with special knowledge, skill, experience, training, and education.[21] Jurors must be willing to accept that your nurse practitioner or law enforcement officer may have sufficient knowledge, skill, experience, training, or education to testify as a competent expert, even without a degree in "strangulation."

G. Juror Typography

Much discussion occurs about who is a good juror and who is a bad juror in a domestic violence case. While those viewpoints are not discussed here, there are a few issues specific to strangulation cases that may prove thought provoking. For example, jurors with backgrounds that frequently expose them to minor injuries (e.g., laborers, athletes who engage in physically

21. Evid. Code § 801(b).

violent sports) may tend to regard scratches and redness as "non-injuries." Spend extra time with these potential jurors to determine if they can be good jurors on your strangulation case. If they cannot, the discussions with them might serve as good examples for other potential jurors about the seriousness of the offense.

IV. Trial Strategies

Evidence-based prosecution strategies work. Minimize the impact of the abuser's power and control over the victim by presenting a case that proves guilt independent of the victim's testimony. A typical case might consist of introducing the 911 call, followed by the observations of a law enforcement officer, followed by an expert witness in strangulation, and conclude with introducing admissions from the defendant. Think about how to demonstrate the absence of oxygenated blood to the brain through analogy. Some examples include a hose, where the flow of water has been interrupted by a kink, a flashlight where the current from the battery weakens, or a car where fuel is interrupted to the engine.

A. Opening Statement

The opening statement should be as lengthy as necessary to explain the case and preemptively counter any perceived weakness in the case. Storytelling as a method of conveying the facts of the offense proves a highly successful approach. In telling the story, avoid overstating the case. At the same time, do not be so brief as to fail to highlight the strengths of the case. Your goal is to provide a compelling story that moves the jury to convict.

The opening statement allows you to train the jurors about strangulation telling them, in summary fashion, what your expert will testify about regarding the seriousness of the crime. Do not be afraid to address jury bias and attitudes that may exist about strangulation or to touch upon the weaknesses of the case. Do this in a manner that makes the weakness irrelevant. Make it politically incorrect for the jury to consider a not-guilty verdict.

B. The Concept of Putting the Truth First

It is confusing for a jury to listen to the opening statement of the prosecutor and a description of the facts of the case, then have that followed up by the prosecution's first witness denying that these facts occurred or giving a different version of the events. For that reason, unless the prosecutor has absolute confidence the victim's testimony concurs with the initial statement to law enforcement, another piece of evidence should be introduced. This could be the 911 recording, introduced through the dispatcher/custodian of records, the neighbor who heard the spontaneous statements of the victim, or the officer who observed the victim with visible injuries—something that corresponds to the prosecutor's opening statement. This has the impact of assuring the jury of the prosecutor's credibility.

If later during the trial, the victim does testify and recant, the jury will have already heard evidence that validates the prosecutor's opening statement. This tactic enhances the credibility of the prosecution's case. After presenting the truthful portion of the case, the prosecutor should follow up with additional evidence in an organized fashion. Depending on the facts of the case,

this may be in chronological order, or in some other fashion. Expert witness testimony needs to follow all evidence that would establish foundation for the expert opinion.

C. Additional Expert Testimony

While Chapter 7 discusses the need for a strangulation expert, other expert witnesses can also assist. There may be a need to call an expert witness related to certain types of electronic data (e.g., cell phone towers, text messaging) or an expert witness on intimate partner battering.

D. Victim Testimony

If the victim is going to testify, be prepared for that testimony to change. The nature of these cases is that the victim might not feel safe to tell the truth. Resist the natural instinct to attack a victim who testifies inconsistently with previous statements. The statements can almost always be confronted in a reserved and professional manner, thus demonstrating that the victim's recanting is a natural part of the process of being abused. Remain aware of your tone and body language. The testimony of the recanting victim sets the stage for testimony by an expert in intimate partner battering and its effects.[22]

E. The Defense Case

Since the defendant's testimony comes after hearing from the prosecution witnesses, including your strangulation expert, anticipate that the defense testimony will attempt to incorporate some aspects of your expert's testimony into their version of what occurred. If your expert mentions that some persons engage in strangulation as part of their sexual practices, for example, the defense may adopt that as a part of the victim's testimony. If the defense claims self-defense, focus cross-examination on establishing they were not in fear of imminent harm and certainly not faced with deadly force. Establish that any danger that might have existed had ceased, and the absence of any statements regarding self-defense being made to law enforcement.[23] Question defendants who claim that they placed their hands on the victim to "calm her down" in detail regarding how this action turned into strangulation.

F. Closing Argument

The closing argument provides the final opportunity to address with the jury the violent and potentially fatal nature of this type of attack. Use all the evidence and all logical inferences of the evidence in formulating your closing argument. Focus on the signs and symptoms and downplay the need for visible injury. This is analogous to what we do with driving under the influence cases, where the signs and symptoms of intoxication are critical in establishing impairment. Exhibits and other forms of demonstrative evidence can illustrate the near-fatal nature of this attack. The batterer who strangles his victim holds the life of the victim in his bare hands. It takes

22. Evid. Code § 1107.
23. This type of examination assumes that the defendant did speak to law enforcement and does not take into account a discussion of *Miranda* rights.

a particularly narcissistic and callous individual to commit this type of offense. Emphasize this to the jury.

G. Post-Conviction Protections

Upon a guilty plea or conviction at trial without the use of expert testimony, consider calling an expert at sentencing. Use the strangulation expert to emphasize the dangerousness of the offense. Because cross-examination by the defense is usually limited at such hearings, this may provide another opportunity to test and train your experts. Post-conviction protections for the victim can include protective orders. Such orders are required under the law if the defendant is placed on probation.[24] Protective orders may even be included if the defendant is sentenced to state prison or receives some other type of non-probationary sentence.[25]

ABOUT THE AUTHOR

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24. Pen. Code § 1203.097.
25. Pen. Code §§ 273.5(i); 136.1(i).

Medical and Forensic Evaluation in Non-Fatal Strangulation Cases

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Editor's Note: Although CDAA always strives to be gender-neutral, strangulation is a very gendered crime. In an effort to not misrepresent this, victims in this manual are referred to as female, while the defendants are referred to as male unless otherwise noted.

I. Introduction

Strangulation is a very dangerous and potentially lethal form of interpersonal violence. Unfortunately, it is also common. Sexual assault victims report being strangled by their assailant at rates from 13 to 18 percent.[1,2] (William Green, M.D. and E. A. Panacek, M.D., MPH, unpublished data, January 31, 2020.) If the sexual assault occurs in the context of an abusive relationship, the strangulation rate climbs to between 23 to 28.5 percent.[3,4] The rate of strangulation in domestic violence is estimated to be 27 to 68 percent.[3,5,6] Not only is the strangulation act itself a threat to life, but it is a significant risk factor for future homicide (by any method) for that strangulation victim. A previous history of non-fatal strangulation was reported in 43 percent of female homicide victims.[5] A history of a single act of non-fatal strangulation increased that victim's odds of subsequently being killed by that assailant by 7.5 times.[6]

Minimal pressure on the neck can cause serious injury, but even in fatal cases of strangulation, up to 40 percent may have no visible external neck injuries.[7] Health care providers working in the field of clinical forensic medicine commonly examine victims who were assaulted by strangulation. The strangled patient presents multiple challenges and questions. Some of these questions relate directly to the medical care of the strangled patient. Is the patient medically stable, or might they deteriorate? What evaluation is appropriate? What is the optimum management of this particular patient? Other questions are directed to the needs of the criminal justice system. Did strangulation occur? Can the forensic examination help confirm the identity of the assailant? What was the intensity and duration of the assault? Was the strangulation assault a life-threatening event? This chapter discusses the medical and forensic evaluation of non-fatal strangulation patients. Any professional, whether in health care or the criminal justice system, who interacts with the strangled patient/victim must keep these basic concepts in mind:

- Strangulation is a very dangerous (and *often life-threatening*) form of interpersonal violence.
- Strangulation *always* includes both medical and forensic aspects.
- Strangulation requires *careful medical evaluation*.
- *Documentation* must be thorough and complete.

A clarification of terms is important for the purposes of context in this discussion. The term "forensic," refers to the interface between the law and medicine. "Forensic pathology" is the medical discipline that deals with the evaluation of *dead* victims. This differs from "clinical forensic medicine," which is the medical discipline that deals with the evaluation and care (both medical and forensic) of *living* victims. Clinical forensic medicine includes attention to patient care needs, while forensic pathology does not.

The term "clinical" refers to any information or activity related to patient care. Both "victim" and "patient" will be used to describe the individual who has been strangled. "Victim" has a criminal justice connotation and "patient" is appropriate in a medical context. This discussion will cross back and forth between these two worlds, so both terms will be used.

II. Challenges in Evaluating Strangulation Cases

In clinical forensic medicine, there are two sets of needs the medical professional must address. The first is the patient's needs. This includes evaluating and stabilizing any acute medical issues, emotional support, and crisis intervention. It may also include health issues and prevention strategies, such as sexually transmitted infections (STIs) and pregnancy in the sexually assaulted patient. The patient's safety and any social issues may also need to be addressed, e.g., risk-assessment, safety planning, and follow-up care.

Injuries sustained in a non-fatal strangulation evolve forensically, so a follow-up medical visit is very helpful—both for victim care, as well as for the continued documentation of evolving symptoms and physical findings for the criminal case.

The second is the criminal justice system's needs. Attending to these forensic issues requires specialized training, typically outside the scope of standard medical education. A detailed assault history is necessary to guide and focus the physical examination and evidence collection. The assault history must also carefully evaluate and analyze the reported mechanism(s) of injury. This information will later be compared with the physical and evidentiary findings for the forensic purpose of determining the consistency between the history and the findings. Documentation of all historical, exam, and evidence findings must be meticulous, thorough, and complete. This is best accomplished using a comprehensive standardized protocol. Documentation of visible findings requires expertise in forensic photographic techniques. Evidence management and documentation must be driven by strict protocol in accordance with the crime laboratory.

CLINICAL FORENSIC MEDICINE
Two Sets of Needs to Address

PATIENT NEEDS	CRIMINAL JUSTICE NEEDS
❑ Acute medical issues	❑ Detailed assault history (mechanisms of injury)
❑ Emotional support and crisis intervention	❑ Documentation of physical findings
❑ Prevention strategies	❑ Evidence collection
» Health issues	❑ Interpretation of findings
» Risk assessment	❑ Expert medical opinion
» Safety planning	❑ Expert testimony
❑ Follow-up care	
» Medical	
» Forensic	

A. The Legacy of Limited Response to Strangulation

Non-fatal strangulation always includes both medical and forensic aspects. There are a number of medical and forensic issues that prove to be challenging in these types of cases. Medical knowledge about strangulation—especially the magnitude of the risk and the appropriate evaluation necessary to mitigate the risk—continues to evolve. Historically, both inadequate research and limited medical training have allowed a casual clinical response to prevail. This truncated response has been facilitated by the fact that many strangled patients do not seek medical evaluation, and those who do may initially present with minimal or subtle injuries and symptoms. Not only has this put patients at risk, but the medical community has failed to adequately educate our colleagues in patient advocacy, law enforcement, and prosecution regarding the realities of strangulation. It is not unusual for everyone involved in the case to underappreciate the medical risk of strangulation. Consequently, this can result in limited medical evaluation and treatment, which may allow subsequent deterioration and a bad outcome for the victim. The forensic fallout for the criminal justice system includes frequently absent or poor documentation in the medical record and little or no medical testing or imaging, which compromises objective proof of injury. The good news is that the situation is improving. Recent research has stimulated concern and discussion resulting in better protocols and enhanced training for approaching the strangled patient.

III. Strangulation 101: Understanding the Basics

Whether evaluating a strangled patient, investigating a strangulation case, or prosecuting a strangulation assault, everyone involved, including the jury, needs to understand the fundamental nature of strangulation, including:

- basic physiology and anatomy;
- medical terminology;
- definitions and mechanisms;
- pathophysiology (abnormal functioning);
- clinical symptoms; and
- clinical findings and signs.

This starts with normal basic anatomy (structure of the body) and physiology (bodily functioning). The brain needs a continuous supply of oxygen. Without it, brain cells quickly malfunction and die. The brain is the most sensitive organ in the body when deprived of oxygen. Within the brain, there is a spectrum of vulnerability with some areas being extremely sensitive and others more robust. When brain cells die, they do not regenerate, and the function they supported is permanently gone. To ensure continuous oxygen supply, two vital bodily systems must work perfectly and in unison: the respiratory (breathing) system and the cardiovascular (blood flow) system. Multiple areas of vulnerability exist in both of these systems, and the compromise of a single area can rapidly produce a very bad outcome.

Oxygenation is the process in the lungs that shifts oxygen gas from inhaled air into the bloodstream. Oxygen in the blood is then delivered to the brain cells. Once the oxygen is transferred to the cells, the blood is devoid of oxygen or deoxygenated.

Carbon dioxide gas is the main waste product of respiration that is transferred from the cells into the bloodstream. The deoxygenated blood is now not only devoid of oxygen, but full of carbon dioxide. The carbon dioxide waste must now be removed from the body.

Respiration delivers oxygen into the bloodstream. For the respiratory system to function normally, air must pass freely through the nose and mouth, through the upper air passages, through the upper and lower throat (pharynx and hypopharynx), through the voice box (larynx), into the windpipe (trachea), and finally into the lungs. Air must also pass freely out of the lungs, which allows the carbon dioxide gas to shift from the blood into air in the lungs and then be exhaled into the atmosphere. Normal breathing is the unobstructed in and out of airflow. The bones and muscles of the rib cage work with the diaphragm (large dome-shaped muscle between the chest cavity and the abdominal cavity) to create the mechanical "bellows" action that moves the air in and out. See Figure 5-1: The Respiratory System.

Cardiovascular refers to the system that includes the heart, arteries, and veins. The heart provides the pumping action that moves the blood through the lungs (for oxygenation and carbon dioxide removal) and to and from bodily tissues and organs. Arteries move blood away from the heart and veins move blood back toward the heart. See Figure 5-2: The Cardiovascular System.

Carotid arteries (right and left) are the two main blood vessels in the neck that transport about 85 percent of the oxygenated blood to most of the brain cells. At the angle of the jaw, each common carotid artery divides into an internal carotid and an external carotid branch. See Figure 5-3: Vascular and Airway Structures in the Neck.

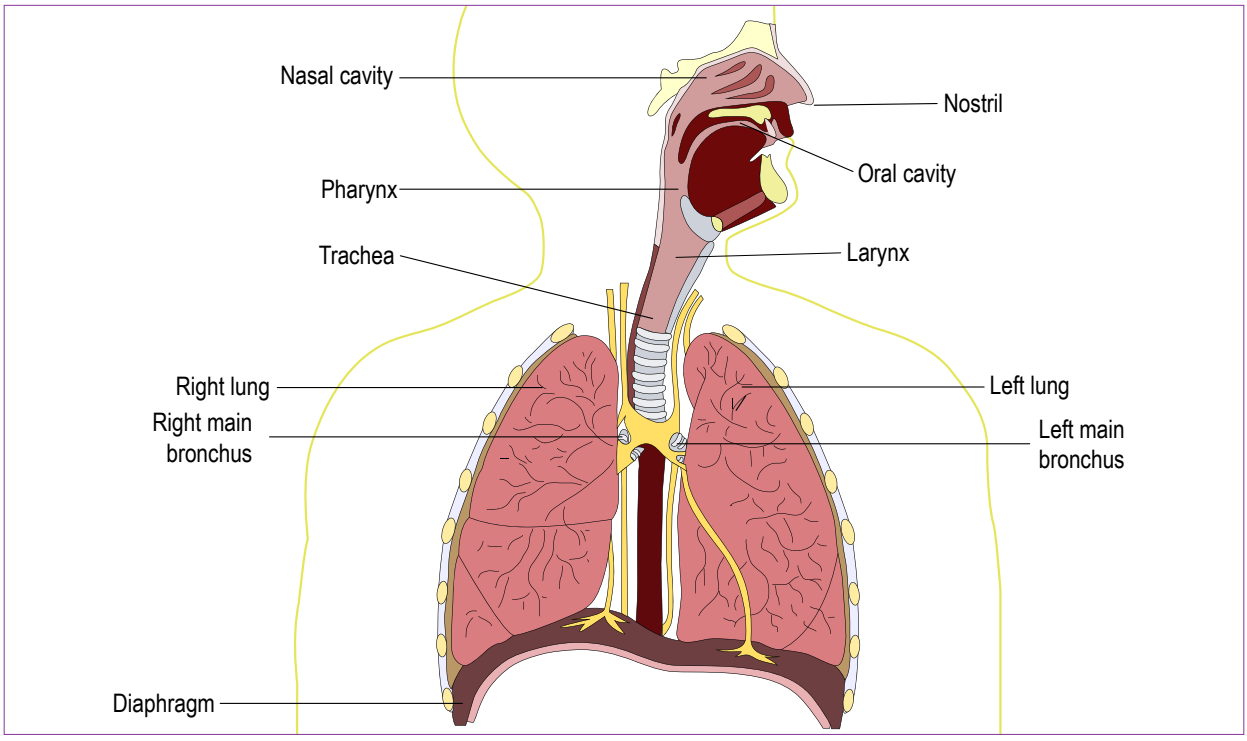

Figure 5-1. The Respiratory System.

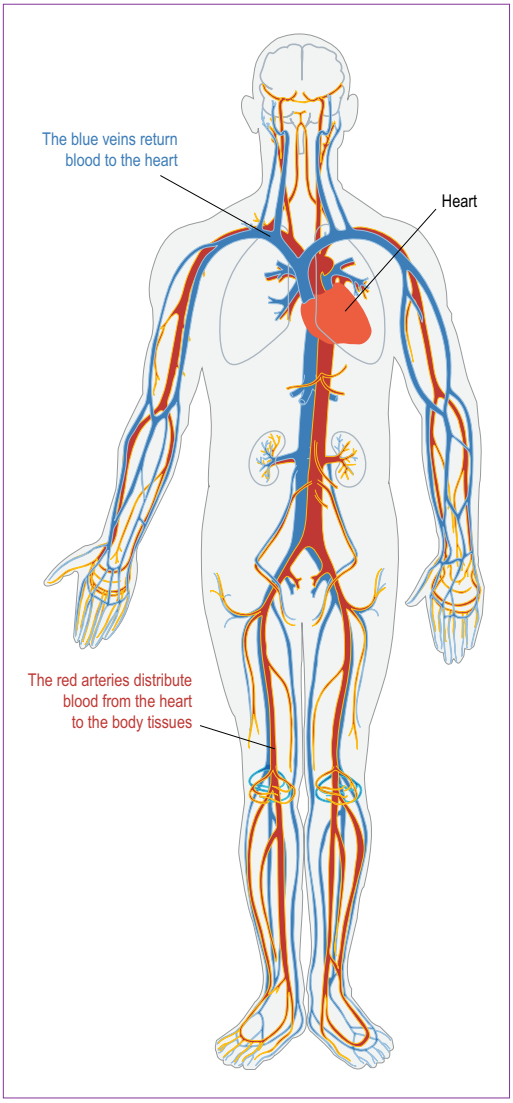

Figure 5-2. The Cardiovascular System. Source: Wikipedia Commons.

Jugular veins (right and left; also, with internal and external branches) are the thin-walled blood vessels in the neck that transport the oxygen-depleted, carbon dioxide-rich blood from the brain back to the lungs.

Vertebral arteries (right and left) travel through bony passages in the bones of the neck (cervical vertebrae) to supply about 15 percent of the oxygenated blood to brain cells, mainly to the back (posterior) parts of the brain. See Figures 5-4: Vertebral Artery Anatomy and 5-5: Illustration of the Vertebral Artery Anatomy.

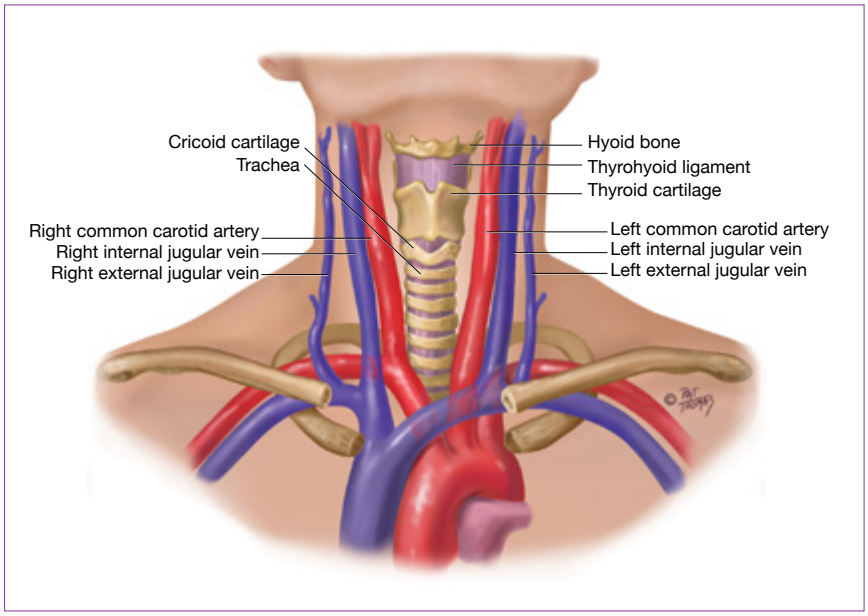

Figure 5-3. Vascular and Airway Structures in the Neck. With permission from Pat Thomas <*http://patmedicalart.com*> (accessed Aug. 31, 2020).

- Hypoxia is an oxygen deficiency in body tissues.
- Hypoxemia is oxygen deficiency in the blood.
- Anoxia is the absence or lack of oxygen in body tissues.
- Ischemia is insufficient blood flow to an organ causing a shortage of oxygen, which may lead to cell death and organ failure.
- Asphyxia is a broad term defined in forensic situations where a body does not receive or utilize adequate amounts of oxygen.[8] In the context of strangulation, asphyxia occurs when brain cells do not receive adequate oxygen for normal functioning. This may result from respiration compromise (the lungs being deprived of oxygen) or cardiovascular compromise (the brain being deprived of blood flow). Asphyxia may result from a combination of problems in both systems.

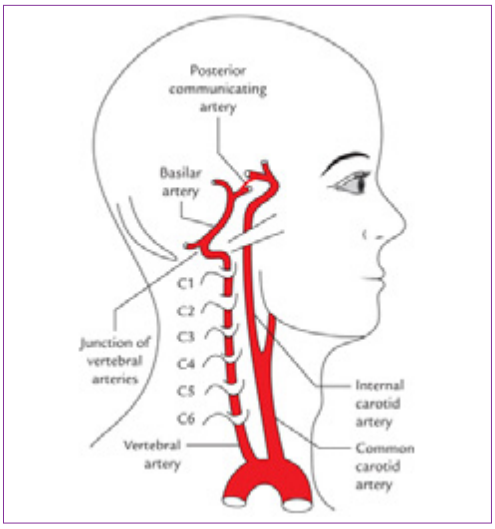

Figure 5-4. Vertebral Artery Anatomy. Source: Neupsy Key, "Blood Supply of the Brain" <*https://neupsykey.com/blood-supply-of-the-brain-3/*> (accessed Aug. 31, 2020).

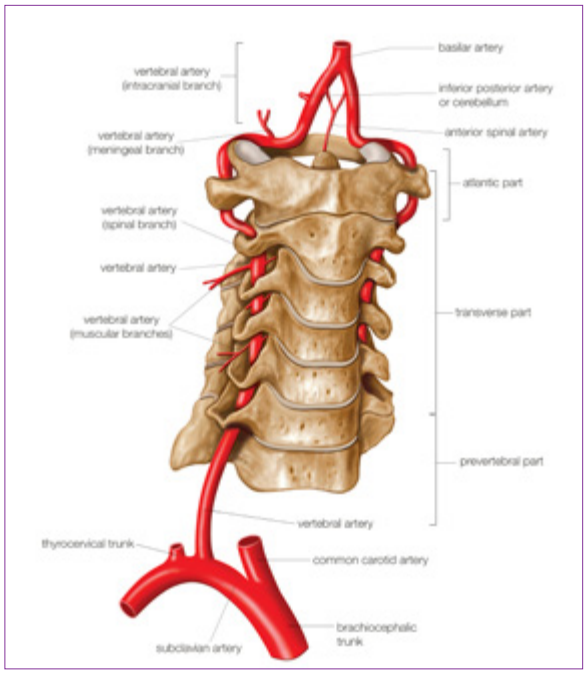

Figure 5-5. Illustration of the Vertebral Artery. *Asklepios Atlas of the Human Anatomy*. With permission from Asklepios Medical Atlas/Science Photo Library.

- Suffocation is a broad term encompassing different causes of asphyxia associated with oxygen deprivation.[8]
  - Smothering is asphyxia by obstruction of airflow into the upper air passages including the nose, mouth, and pharynx (e.g., putting a pillow or hand over the victim's nose and mouth, stuffing a rag into the victim's throat).
  - Choking is asphyxia by obstruction of airflow into the lungs at the level of the voice box (larynx) or windpipe (trachea). This occurs when an object (e.g., piece of food, popcorn, piece of balloon, small toy) mechanically blocks airflow internally. The Heimlich Maneuver can be life-saving by dislodging the object and restoring airflow. *Note*: "Choking" is frequently used inappropriately to describe strangulation. See Figure 5-6. The Heimlich Maneuver.
  - Mechanical or positional asphyxia occurs when either external compression of the chest or abnormal body position stops or compromises normal breathing. Traumatic asphyxia is a variation when a heavy object compresses the chest. Compression of the abdomen may be a contributing factor if the force presses on the abdominal contents, which in turn elevates and restricts normal motion of the diaphragm muscle. In strangulation, the common scenario is the assailant sitting on the victim's chest/abdomen while manually strangling her.
  - Airway compression compromises airflow by compressive force applied to the airway (typically at the level of the voice box [larynx] or windpipe [trachea]) that squeezes the airway closed. Examples include the external force of strangulation (manual or ligature) and the mass effect of an enlarging area of post-traumatic swelling and bleeding inside the neck that pinches the airway closed (this may be rapid or delayed). Airway compression may be temporary and resolve when the force is removed. Airway compression may or may not damage tissue.
  - Airway obstruction may develop inside the airway structures from post-traumatic tissue damage or disruption accompanied by internal bleeding and swelling (obstruction of airflow may be immediate or develop slowly).

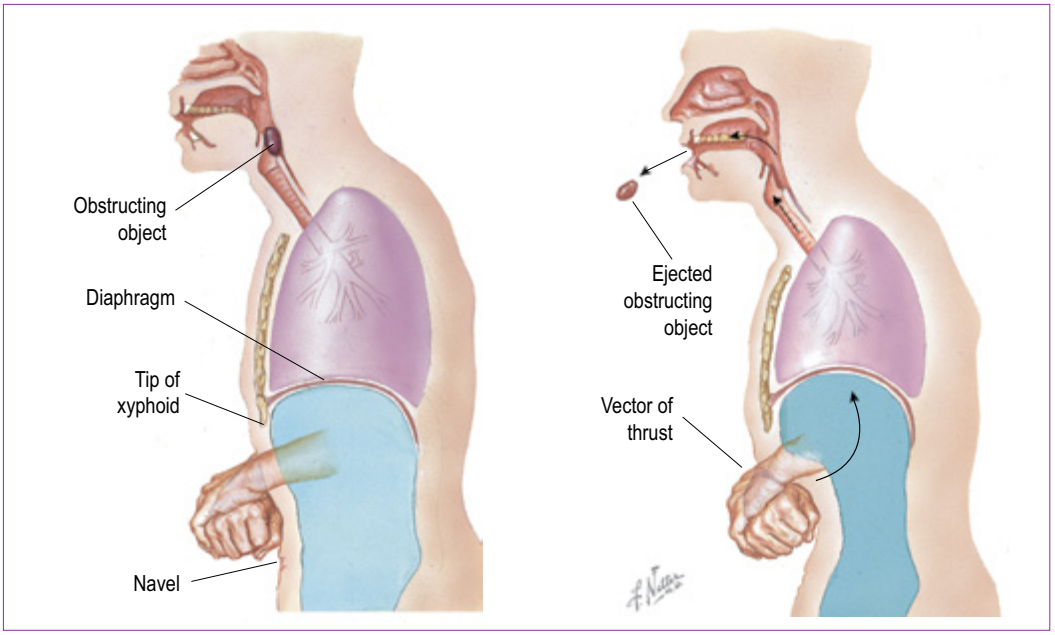

Figure 5-6. The Heimlich Maneuver. When performing the Heimlich maneuver, abdominal pressure pushes the diaphragm muscle upward increasing the pressure inside the chest and upper airway. The object blocking the chest and upper airway is dislodged and air can once again flow freely in and out of the lungs. With permission from Netter Images.

- Strangulation is asphyxia by closure of the blood vessels and/or air passages of the neck by external compression.[8]
  - Ligature strangulation is a form of strangulation in which pressure on the neck is applied by a constricting band tightened by force other than the body weight.[8] *Note*: If the pressure on the constricting band is supplied by body weight, this is hanging, which is not discussed in this chapter. See Figure 5-7: Ligature Strangulation.
  - Manual strangulation is characterized by external pressure on the structures of the neck by one hand, both hands, forearms, or other limbs.[8] See Figures 5-8: One-Hand Manual Strangulation and 5-9: Two-Hand Manual Strangulation.

Figure 5-7. Ligature Strangulation.

Figure 5-8. One-Hand Manual Strangulation.

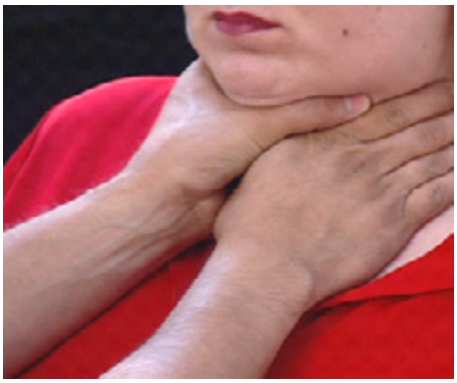

Figure 5-9. Two-Hand Manual Strangulation.

- Choke Holds: Manual strangulation with compressive force applied using the forearms deserves special attention. Many variations have been described, often under the collective umbrella of "choke holds." Some have been employed by law enforcement to subdue suspects resisting arrest (e.g., the carotid sleeper,[9] the vascular neck restraint,[10] and the lateral vascular neck restraint). See Figure 5-10: Vascular Neck Restraint. The objective is to restrict carotid blood flow and quickly render the subject unconscious. See Figure 5-11: Cross-Section Showing Closure of Both Carotid Arteries.

Terminology regarding forearm-related strangulation is not consistent. For example, one type of historical law enforcement restraint was the "arm bar control" (also called a "choke hold"), which placed the officer's forearm across the front (anterior) of the suspect's neck and the applied pressure closed off the airway leading to unconsciousness by suffocation (airway compression). This has not been used for many years since it carries the risk of airway injury and death.[9]

The martial arts (e.g., Jujitsu, Aikido, Brazilian Jujitsu, Karate) have used a wide variety of compressive neck techniques for centuries to subdue or incapacitate opponents. Terminology varies widely, but two general categories are described as "blood chokes" (designed to interrupt cerebral blood flow) and "air chokes" (used to stop airflow into the lungs). "Strangle" or "strangling" techniques also appear frequently in martial arts literature and seem to refer to either method of airway or vascular compromise. One of the best known and most frequently employed is the Jujitsu "choke" called hadaka jime or "rear naked choke." All of these techniques may directly compress airway or vascular structures and impair airflow and/or blood flow, but some may also stretch or twist arteries, which can cause injury to the arteries (discussed in detail later). See Figures 5-12: Artistic Rendering of Brazilian Jiu-Jitsu and 5-13: Variation of the "Rear Naked Choke."

All of these forearm techniques (whether used by law enforcement or in sport) are dangerous and carry the risk of airway and vascular damage.[11,12,13,14,15,16,17,18]

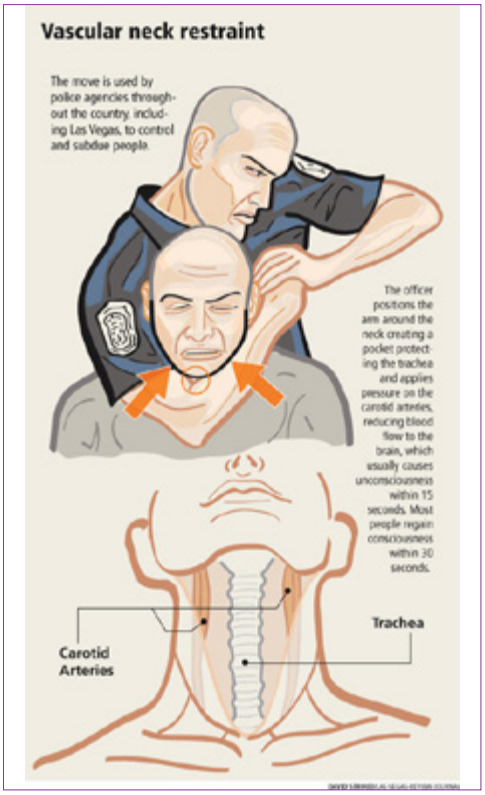

Figure 5-10. Vascular Neck Restraint. Source: David Stroud, "Proper Use of Neck Hold Not Fatal" (Nov. 27, 2009) *Law Vegas Review-Journal <https://www.reviewjournal.com/news/proper-use-of-neck-hold-not-fatal-research-shows/>* (accessed Aug. 31, 2020).

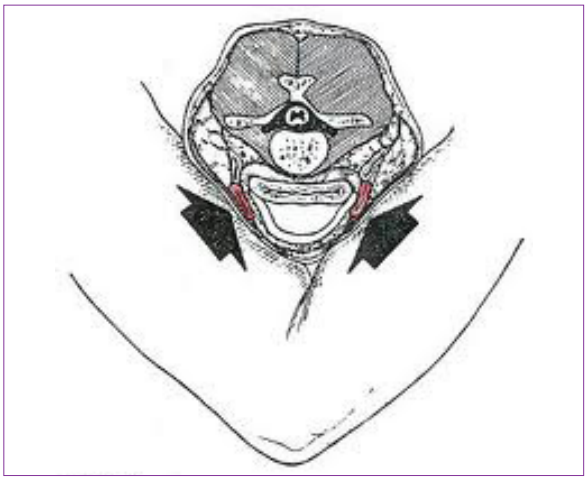

Figure 5-11. Cross-Section Showing Closure of Both Carotid Arteries. Source: Kojutsukan, "Shime Waza, Neck Restraints and Neck Holds" (Dec. 13, 2012) [Blog] *<http://kojutsukan.blogspot.com/2012/12/shime-waza-neck-restraints-and-neck.html>* (accessed Aug. 31, 2020).

IV. Pathophysiology

Pathophysiology is the study of the functional changes associated with disease or injury. Because two complex systems (respiratory and cardiovascular) are involved in oxygenating the brain, functional vulnerabilities exist in many areas—alone or in combination. Direct blunt force trauma to the neck and surrounding structures (from the strangulation mechanism) may injure tissue in other bodily systems (e.g., skin, musculoskeletal, gastrointestinal, neurologic, lymphatic, endocrine). These injuries do not directly impact brain oxygenation but create important clinical issues with specific symptoms and physical findings.

Figure 5-12. Artistic rendering of Brazilian Jiu-Jitsu maneuver known as Rear Naked Choke or Lion Killer: combined neck extension and head rotation (as a defense measure) stretches the compressed internal carotid artery at its origin, causing dissection. <*https://bit.ly/31OPAKY*> (accessed Aug. 31, 2020).[11]

- Symptoms are a patient's *subjective* description of what they feel or experience. Symptoms may be current or past (resolved). The inherently subjective nature of symptoms may be mitigated by consistent descriptions documented by multiple interviews or clinicians. A symptom may also be referred to as a "complaint."
- Sign is an *objective* medical observation or test. This is synonymous with finding and includes:
  - physical findings from the physical exam;
  - laboratory testing results; and
  - imaging studies (e.g., x-ray, CT, MRI, ultrasound).

  Signs and findings may be validated or confirmed by a second examiner, or by repeating a test or imaging procedure.

Figure 5-13. Variation of the "Rear Naked Choke." Step 6 of the rear naked choke. Stephan Kesting/ BeginningBJJ.com <*https://www.liveabout.com/brazilian-jiu-jitsus-rear-naked-choke-2308356*> (accessed Aug. 31, 2020).

Functional changes may be temporary and resolve when the compromising force is removed. Examples include compression of the airway, the chest, a blood vessel, or a nerve. Restoration of normal functioning may be immediate, complete, and without serious consequence. The injuring force may cause mild structural damage that temporarily impairs function but will heal spontaneously. Minor injuries like bruising and abrasions fall into this category. Another example is neurapraxia, which causes loss of sensation and movement after a nerve has been compressed. The damage to the nerve is minor and usually resolves in minutes to days without treatment. Most everyone can probably recall waking up in bed to find an arm that "fell asleep" and is limp and numb only to return to normal functioning within a few minutes. Other injuries may create

significant damage. Examples include fractures, tears, ruptures, or crushing of airway or blood vessel structures. These injuries may pose an immediate threat to life with obvious compromise of function.

In the context of strangulation, there are two situations in which the initial presentation of the injury may appear trivial, with minimal or even no symptoms, yet a life-threatening problem is beginning to evolve. The first issue is the bleeding and swelling in the neck that can result from the strangling mechanism. Even minimal force may cause bleeding and/or swelling in the injured tissue. Initially, both symptoms and signs may be mild or unrecognized. The great risk is that both bleeding and swelling can progress (often slowly) and not cause obvious problems until the airway becomes blocked. Delayed airway compromise and death following strangulation is not common, but well-documented in the medical literature.[19,20,21,22] The second significant risk of delayed dysfunction (morbidity) or death (mortality) following strangulation involves arterial injury that may be initially without symptoms (asymptomatic) and progress to stroke hours, days, months, or even years after the event. This problem will be discussed in more detail later.

V. Specific Functional Changes in Strangulation

Mechanism of injury is an essential concept in clinical forensic medicine. It defines the exact details of how an injury occurred. This information usually comes directly from the patient/victim and must be obtained via the questions and clarifications of a skilled interviewer or examiner. Sometimes the information comes from an observer or witness. The description of what happened can then be compared with subsequent symptoms, physical findings, and laboratory results (including imaging studies). The criminal justice system is frequently very interested in the expert clinical forensic assessment regarding the degree of consistency between the history of events and the resultant symptoms and clinical findings. The precision of this assessment is limited by the quality of the data on both sides of the equation.

In discussing the details of strangulation injuries and alteration of normal functioning, the question of how much force (or pressure) was applied is frequently posed. Only in experimental research situations where the forces are measured and monitored will there be accurate data on the issue. Baseline measurements for these "how much force" questions come mainly from studying cadavers and extrapolating to living victims.[23] When evaluating a specific question in a real case, a number of confounding (and often unknown) variables must be considered. There is significant variability from one individual to the next in the thresholds of vulnerability for injury with a given force. The details of the exact quantity of force applied, the duration and direction of the force application, the surface area of the force distribution, and the exact anatomic location to which the force was applied, all influence the resultant findings.[24]

The reality is that—outside of a research experiment— the exact force cannot be known. With these caveats in mind, these "force numbers" should not be relied upon as exact values and only used as general guidelines for relative amounts of force. It is generally surprising how little force is required to cause significant alterations in function or a severe injury. For example, the following "forces of daily activities" provide a general knowledge context:

- An adult's average maximum grip = 100–120 pounds.
- A firm handshake = 60–80 pounds.
- Opening a "pop top" = 20 pounds.
- A handgun trigger pull = 6 pounds.

See Figure 5-14: Hand Dynamometer.

Figure 5-14. Hand Dynamometer. This instrument is commonly used by occupational therapists for hand rehabilitation. The dial displays pounds of force generated by the grip.

A. Airway Compromise in Strangulation

Compressive forces of strangulation may compromise airway function by squeezing the airway closed without damaging any structures (airway compression). This requires about 33 pounds of pressure. But injuring the voice box (larynx) structures, which may create bruising, bleeding, and swelling, only requires 22 pounds of pressure. This type of laryngeal damage may progress to airway obstruction and is potentially lethal. Most of the structural components of the larynx and windpipe (cricoid and trachea) are made of firm, but rubbery cartilage. About 35 to 46 pounds of pressure can fracture cartilage. *Note*: Aging makes cartilage less flexible and more brittle, so less force is necessary to fracture cartilage in older victims. These cartilaginous fractures also carry the risks of bruising, bleeding, and swelling leading to airway obstruction and death.

The fact that relatively small amounts of force can create a spectrum of injury reinforces the reality of multiple variables in any given case. It is also important to note that although airway structures may be damaged by concentric compression of the neck, they are especially vulnerable to neck compression in which the force is primarily directed at the front (anterior) part of the neck. Examples include a forearm, foot, or knee pressed against the front of the neck; "air chokes" in martial arts; or the thumbs of the assailant pressed into to the thyroid cartilage.

The potential seriousness of laryngeal injury following strangulation is highlighted by the fact that vastly more laryngeal trauma is seen by forensic pathologists in strangulation homicide than by those caring for victims of non-fatal strangulation.[22] Forces sufficient to cause thyroid and cricoid cartilage fractures are usually sufficient to cause airway obstruction resulting in acute asphyxia and death.[22] Maxeiner[25] reviewed 10 research papers that reported the incidences of cartilaginous airway fractures (larynx and cricoid) in a series of strangulation homicide victims and found such fractures were very frequent, with a range of 30 to 92 percent (median 54 percent). Serious airway injury (e.g., hyoid fracture, thyroid cartilage fracture, injury to the vocal cord apparatus) is very unusual in non-fatal strangulation. There are multiple case reports of airway injury in strangulation survivors but no published data on the overall incidence.[22,26,27,28,29,30,31,32,33,34,35,36] Cricoid fracture is found at autopsy in 5 to 20 percent of

homicidal strangulations.[37,38] Cricoid fracture in non-fatal strangulation is rare.[33]

As the name implies, the hyoid bone is not cartilaginous. The hyoid is the only bone in the body that is not directly connected to another bone. It plays an important role in maintaining structural integrity of the upper airway and aids in tongue motion and swallowing. Fracture of the hyoid bone is a fairly common finding at autopsy following manual strangulation homicide occurring in 17 to 71 percent of cases.[25,27,39,40] Hyoid fracture in non-fatal strangulation is rare.[27] See Figure 5-15: Anatomy of the Larynx, Cricoid, and Trachea.

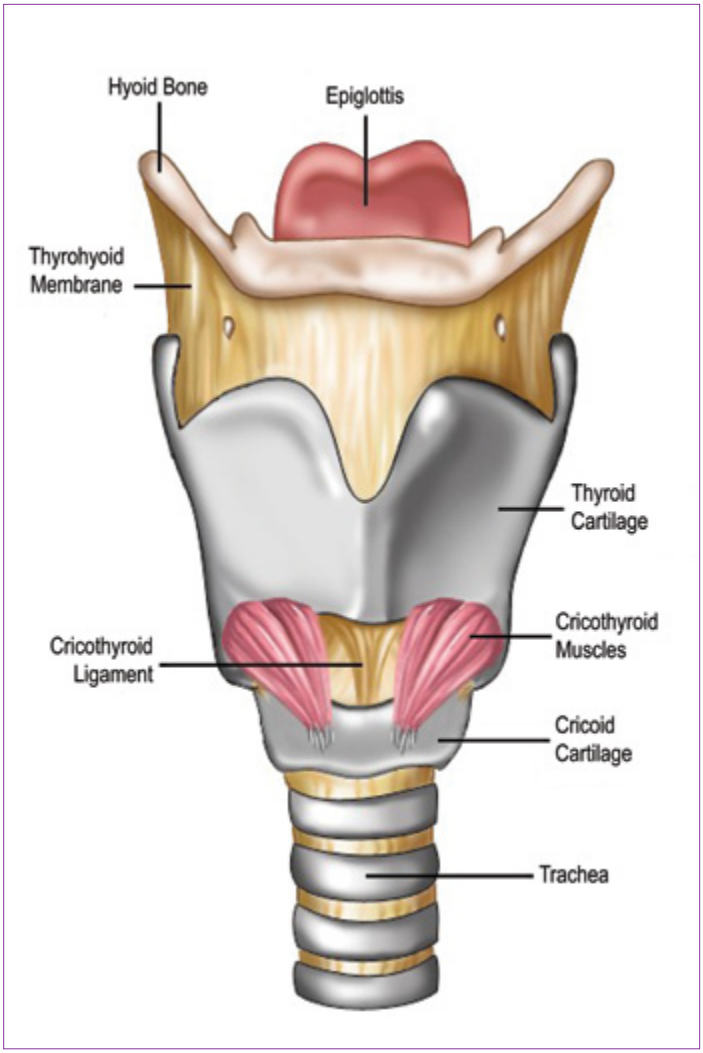

Figure 5-15: Anatomy of the Larynx, Cricoid, and Trachea. Laryngeal Manifestations of Rheumatoid Arthritis By Stevan Stojanović and Branislav Belic (2012) Innovative Rheumatology <*https://www.intechopen.com/books/innovative-rheumatology/laryngeal-manifestations-of-rheumatoid-arthritis*> (accessed Aug. 31, 2020).

B. Arterial Compromise in Strangulation

The forces of strangulation can compress blood vessels in the neck. This compression can diminish or stop blood flow in both arteries and veins. The impact of altered blood flow involves many variables: the specific vessel(s) involved, the duration of the compression, and the exact nature of the compressive force. The same warning about over-reliance on exact "force numbers" (previously discussed) applies to blood vessel closure as well. The important points to remember are the relative amounts of force for various impacts and that all the forces involved are minimal when compared to regular activities.

The carotid arteries supply the majority (about 85 percent) of oxygenated blood supply to the brain. The general concentric compressive force to the neck required to close the carotids and stop blood flow to the brain is about 22 pounds of pressure. However, if the force is specifically directed front to back (anterior to posterior) in a manner that compresses one or both carotids against the bony prominences in the neck bones (transverse processes of the cervical vertebrae), only about 5.5 pounds of pressure can stop blood flow. See Figures 5-16: Compression of the Carotid Artery Using Frontal Force Against the Underlying Transverse Process of the Cervical Vertebra.

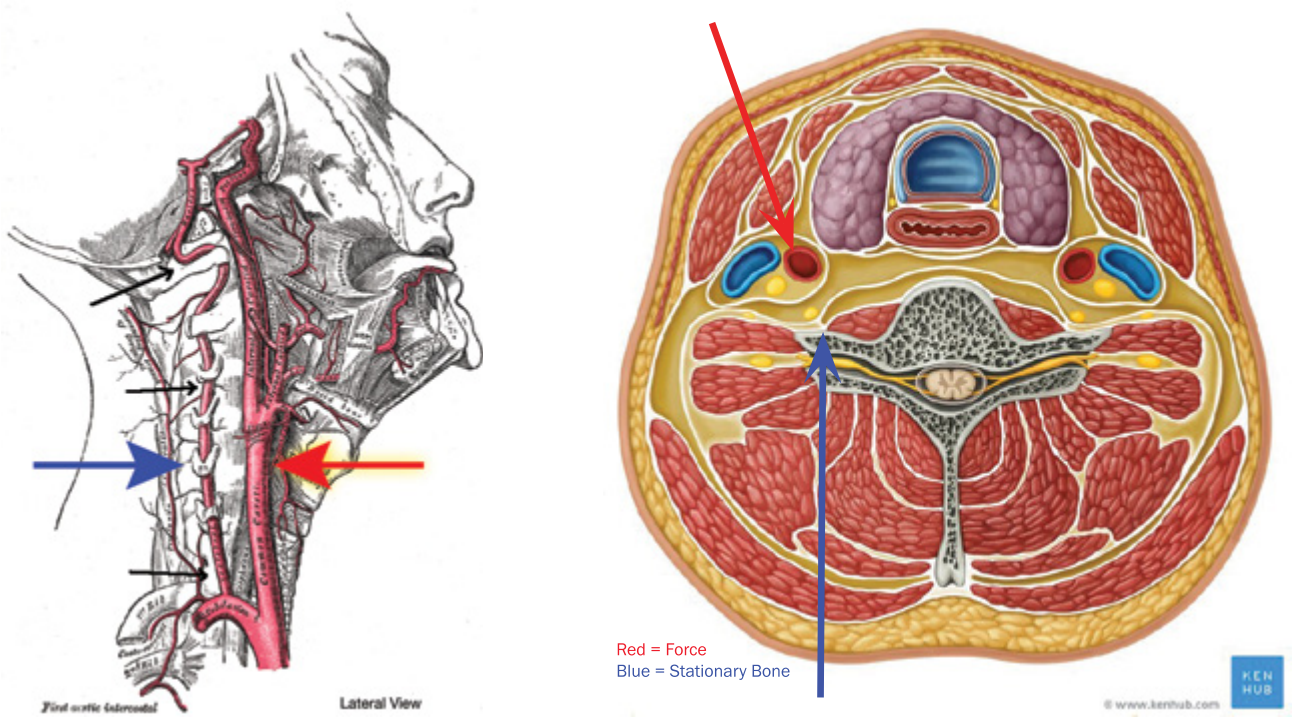

Figure 5-16: Compression of Carotid Artery Using Frontal Force (red arrow) Against the Underlying Transverse Process of the Cervical Vertebra (blue arrow). Source: (Left) Wikipedia; (Right) Ken Hub.

If the blood flow is halted to only one carotid artery, oxygenation of the half of the brain nourished by that carotid will be compromised and ischemia will develop. Depending on the duration of flow interruption, neurologic dysfunction may manifest on the opposite side of the body. The reason the opposite (contralateral) side is affected is due to the anatomic phenomena of decussation in which many neurologic pathways cross from one side of the brain to the other side of the body.

If both carotid arteries are simultaneously compressed (by any mechanism) to the point that all carotid blood flow to the brain is stopped, neurologic dysfunction will begin very quickly. Light-headedness and dizziness will give way to loss of consciousness within 10 seconds or less.

The vertebral arteries (which provide about 15 percent of blood flow to the brain; mainly to the posterior parts of the brain) are on the sides (lateral parts) of the neck and are much better protected than the carotid arteries in the front (anterior) part of the neck. In the central portion of the neck, the vertebral arteries run through bony tunnels in the neck bones (from C6, sixth cervical vertebra, to C2, second cervical vertebra, through the foramen transversarium in each transverse process on both sides of each of these vertebrae). See Figure 5-17. Illustration of the Vertebral Artery.

As a result of this anatomic protection, much more force is required to externally compress vertebral arteries (66 pounds).[23] The vertebral arteries are more vulnerable to compression and direct damage in the upper portion (from C2 to the base of the skull) and in the lower portion (from C6 to the base of the neck). Analogous to the situation involving the carotids where a

precisely directed force can occlude with less pressure, an experimental study[41] found that only 17 pounds of force applied using a ligature in a specific way just under the jawbone (mandible) could close the vertebral arteries.

As with compression of the airway structures, there is a spectrum of dysfunction and injury that results from pressure on the arteries. Temporary closure may cause mild hypoxia in the brain leading to brief dysfunction (without significant tissue damage) that resolves completely when the force is removed. If the compression is maintained for a longer period, brain cells may pass through hypoxia to anoxia and die, never to regenerate or be replaced. The potential outcomes are permanent brain damage or death. These are the brain consequences of impaired oxygenation. Another very serious potential problem stemming from direct arterial pressure is damage to the artery itself. This issue will be discussed in more detail later.

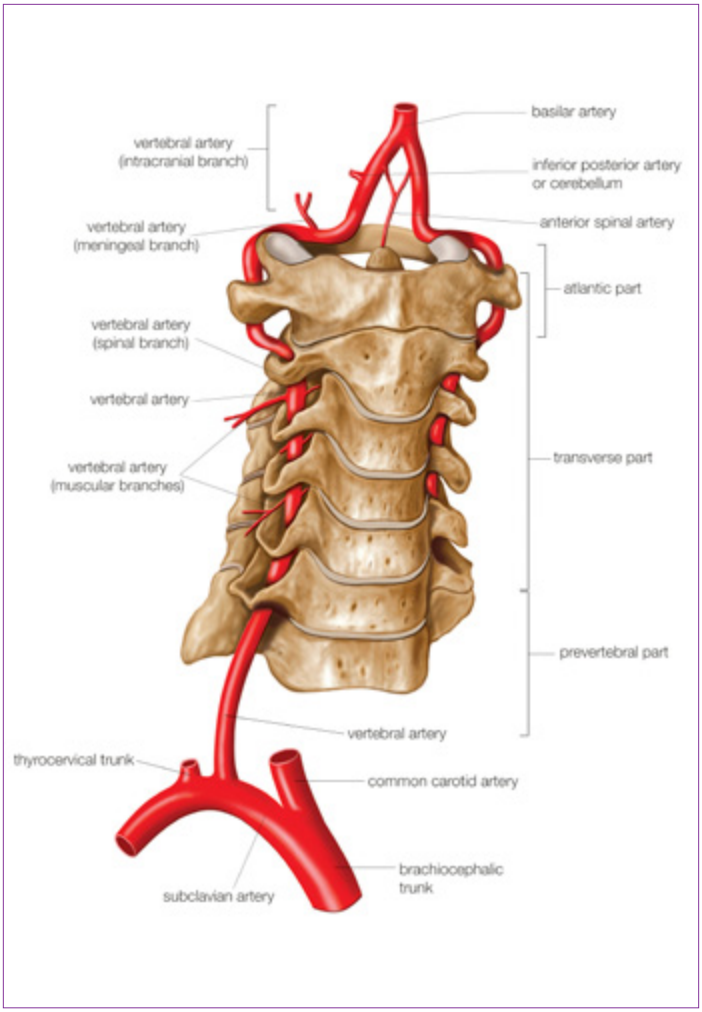

Figure 5-17. Illustration of the Vertebral Artery. *Asklepios Atlas of the Human Anatomy*. With permission from Asklepios Medical Atlas/Science Photo Library.

C. Venous Compromise in Strangulation

The jugular veins in the neck play an essential role in normal brain functioning and have specific vulnerability in strangulation. As the oxygenated blood, delivered by the arteries, passes the brain cells, those cells accept the oxygen and pass metabolic waste products (mainly carbon dioxide) back into the bloodstream. It is the venous system and the jugular veins in the neck that transport this oxygen-poor/carbon dioxide-rich blood back to the lungs. The carbon dioxide is off-loaded and exhaled, and new oxygen is passed from the air in the lungs into the blood. The heart pumps the oxygen-rich blood to the tissues of the body and the cycle of oxygenation repeats. See Figure 5-18: Jugular Veins and Venous Anatomy of the Head and Neck.

Veins have much thinner walls than arteries, so only about 4.4 pounds of pressure is needed to completely stop venous blood flow (in the neck, this is termed venous return). If all four jugular veins (right and left [bilateral], internal and external) are compressed and blocked simultaneously,

the carbon dioxide-rich blood begins to back up into the neck and brain. Because the right and left jugular venous systems connect within the brain, blockage of only one side still allows the other jugular venous system to empty the venous blood. The first consequence of bilateral jugular venous blockage is increasing pressure in the venous system above the level of compression. If the compression and blockage is sustained for 20–30 seconds, the pressure increase may cause tiny veins and capillaries to burst. If these small ruptures occur close to the surface of the skin or mucous membranes (tissue that lines the nasal passages, mouth, and oral cavity) or in the conjunctiva (tissue that covers the sclera [white part of the eye] and the inner surface of the eyelids), tiny red spots (petechiae) will be seen. Petechiae will be discussed in more detail later.

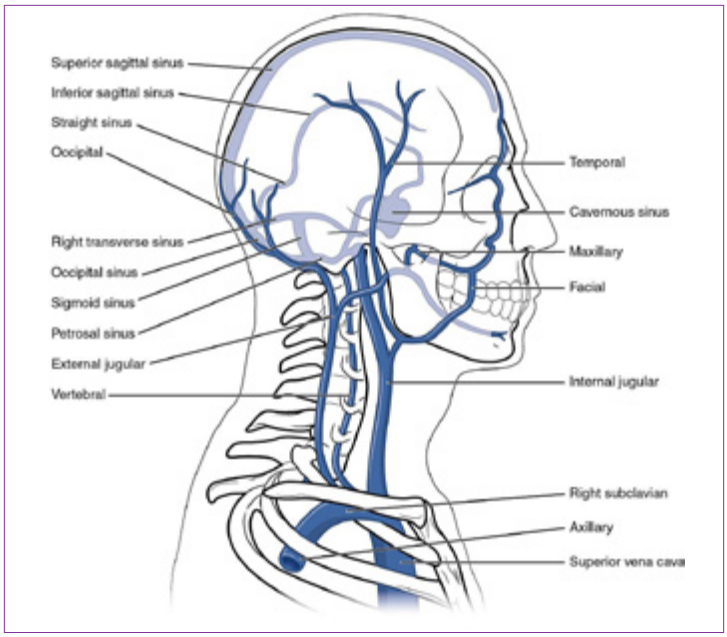

Figure 5-18. Jugular Veins and Venous Anatomy of the Head and Neck. Source: Radiopaedia.org, rID: 45547 <*https://radiopaedia.org/articles/internal-jugular-vein*> (accessed Aug. 31, 2020).

The second consequence of impaired venous return is potentially more serious. If all the venous blood trying to return from the brain is blocked, less arterial (oxygen-rich) blood will get to the brain cells. The brain gradually fills with venous blood loaded with carbon dioxide resulting in too much carbon dioxide and not enough oxygen in the brain cells. This is stagnant hypoxia, which if prolonged, can cause unconsciousness, depressed respiration, and death.

VI. Clinical Symptoms Following Strangulation

The history of events is the first step in the medical/forensic evaluation of the strangled patient/victim. That history must include a detailed description of exactly what happened (mechanism(s) of injuries) and details about symptoms the patient experienced. Symptom descriptions include what was experienced at the time of the assault, how those symptoms have changed, and any new symptoms that have developed since the assault. The history will direct and focus the physical exam, the priorities of the evaluation, and the subsequent investigation. The goal is accuracy and completeness, both in content and in timeline. As with all aspects of any encounter with the strangled victim, documentation that is thorough, complete, and precise is essential. Documentation should also reflect a consistent and standardized approach. Local or regional protocols, documentation forms, and checklists all facilitate these goals. High functioning communities have separate, but complimentary, documentation systems for all pertinent stakeholders (e.g., law enforcement, investigators, 911 operators, pre-hospital/emergency medical services personnel, and emergency departments).

Unfortunately, many patients are unable to provide the "gold standard" history, and some can give no history at all. Multiple factors may contribute to a limited history. In many assaults, alcohol and/or drugs may impair or even eliminate the patient's ability to recall the events. Head trauma associated with the assault (different from the strangulation trauma) or traumatic brain injury (TBI) may impair memories during and after the event (anterograde amnesia) and, less commonly, before the event occurred (retrograde amnesia). Some patients (especially in the context of domestic violence) may be evasive, inconsistent, or lie about what happened.

New information in neuroscience has shown that the emotional trauma of the assault may alter the way memories are created and stored. Trauma-informed interview techniques may help uncover some of the initially missing information. Neuroscience has also provided information about memories in the context of impaired brain oxygenation.

Figure 5-19: Brain Hippocampus Anatomy.

As previously noted, the brain is the most sensitive organ in the body when there is a lack of oxygen. The hippocampus is a complex brain structure deep in the temporal lobe and part of the limbic system and plays a critical role in forming, organizing, and storing memories. See Figure 5-19: Brain Hippocampus Anatomy. Of all brain structures, the hippocampus is the most sensitive to oxygen deprivation. Strangled patients may have a very difficult time recalling events during the interval when compressive force on their neck was limiting the oxygen supply to their brain because the hippocampus was not functioning normally, and memories were not being formed. In this situation, no amount or type of interviewing will uncover information—there are simply no memories to find.

A. Symptoms Related to Direct Compression of Neck Structures

SYMPTOMS RELATED TO DIRECT NECK TRAUMA	RANGE (PERCENT)	MEDIAN (PERCENT)
Neck pain/sore throat	45–72	55
Changes in breathing/difficulty breathing	5–85	23
Changes in voice	9–58	35
Swallowing difficulty	2–58	27

Neck pain and sore throat are very common in strangulation. Neck pain was reported in a range from 45 to 72 percent (median 55 percent).[4,6,42,43,44,45,46,47,48] One report reviewed data collected by police officers with a lower rate of neck pain at 18 percent.[49] Sore throat was recorded by fewer authors with a wider spectrum (5 to 68 percent; median 47 percent).[4,6,43,44,46,50] Both neck pain and sore throat are usually related to direct trauma to the neck structures. This

physical trauma may be mild, and the symptoms resolve without treatment in hours to days. However, these same symptoms may also be associated with more severe damage to internal neck structures, especially those related to the airway. Careful evaluation and monitoring are necessary to prevent a bad outcome.

Changes in breathing or difficulty breathing are also commonly reported but with a very wide variation (5 to 85 percent; median 23 percent).[1,4,42,43,45,46,47,48,49,50] There is no obvious reason for this wide disparity. The variation in the literature may be due to differences in criteria, definitions, interviewer experience, or documentation. It is important to determine the onset, duration, nature, and severity of the breathing problem. During the compression, many patients report they "can't get enough air" or have an inability to breathe at all. The majority of these resolve after the compression stops. Breathing difficulty that persists after the act, especially if it is still present at the time of the exam must be carefully and quickly evaluated. The most worrisome scenarios are:

- airway compression by an enlarging internal neck mass pressing on the airway, or injury to airway structures with tissue disruption; and
- progressive bleeding and/or swelling inside the airway (airway obstruction).

As discussed above, this is a critical emergency since the already compromised airway may quickly close completely.

Another cause of post-strangulation shortness of breath, that is not serious but may be difficult to confirm, is hyperventilation. Hyperventilation is simply breathing faster than the body requires and is usually the result of anxiety and stress. The emotional impact of the assault is more than sufficient stress. Patients feel like they cannot "catch their breath" and may be light-headed or dizzy with tingling of the fingers and around the mouth. Hyperventilation usually resolves spontaneously as the acute anxiety subsides. Some testing may be necessary to exclude other causes.

An unusual but medically significant cause of post-assault shortness of breath is pulmonary edema, which occurs when fluid gets into the small air sacks (alveoli) and surrounding tissue in the lungs. This problem develops because complete airway compression instinctively causes the victim to attempt repeated, forceful inspirations. These attempts generate significant negative pressure within the lungs. After the obstruction is relieved, fluid from the capillaries in the lungs is drawn into lung tissue, which compromises normal oxygenation. The onset of this post-obstructive pulmonary edema usually begins within minutes of the relief of obstruction, but may be delayed for hours.[28,51,52] Pulmonary edema is common in hospital deaths following severe neck compression injuries.[53]

Changes in voice are common after strangulation, reported in 9 to 58 percent (median 35 percent) of patients.[1,6,41,42,43,46,47,48,50,54] The study using police reports noted only 1 percent complained of voice changes.[49] These changes are usually described as a hoarse or raspy voice. Some patients report not being able to speak or scream (aphonia). This typically happens during compression and likely corresponds to complete airway compression, which prevents any air from passing through the larynx, thus preventing any sound generation. Aphonia usually resolves

when compression is lifted (but the voice may be altered). Change in voice may be due to structural injury to the larynx.[55] Structural injuries to the larynx may require surgery to restore the voice and some patients may be left with a permanently altered voice. The majority of changes in voice after strangulation resolve in hours to days. Because a voice change may be important evidence consistent with strangulation, it is forensically helpful to record the victim's voice while altered for comparison to the normal voice later; 911 calls and police voice recorders are very useful for this documentation.

The most common cause of transient voice change from strangulation is compression and neurapraxia of the recurrent laryngeal nerves that control vocal cord motion.[56] These small, paired nerves run just underneath each side of the thyroid cartilage of the larynx and are quite vulnerable to compressive force. Neurapraxia causes temporary paralysis of the vocal cord controlled by that nerve. Usually only one nerve is affected and causes a raspy voice until the paralysis resolves. See Figure 5-20: Recurrent Laryngeal Nerve Anatomy.

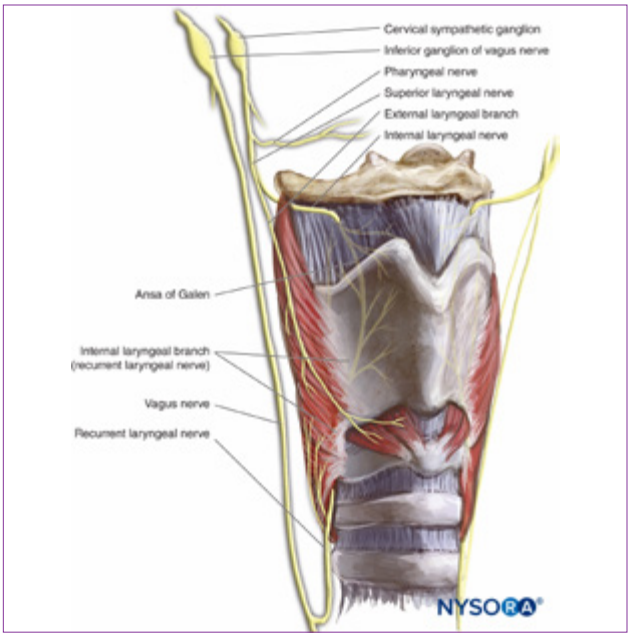

Figure 5-20: Recurrent Laryngeal Nerve Anatomy. With permission from NYSORA Regional and Topical Anesthesia for Awake Endotrachael Intubation <*https://bit.ly/3fbPtN8*> (accessed Aug. 31, 2020).

Paralysis of both vocal cords is a serious situation because the paralyzed default position of the vocal cord is closed. If both cords are paralyzed in that position, very little air is allowed through the larynx. See Figure 5-21: Vocal Cord Paralysis.

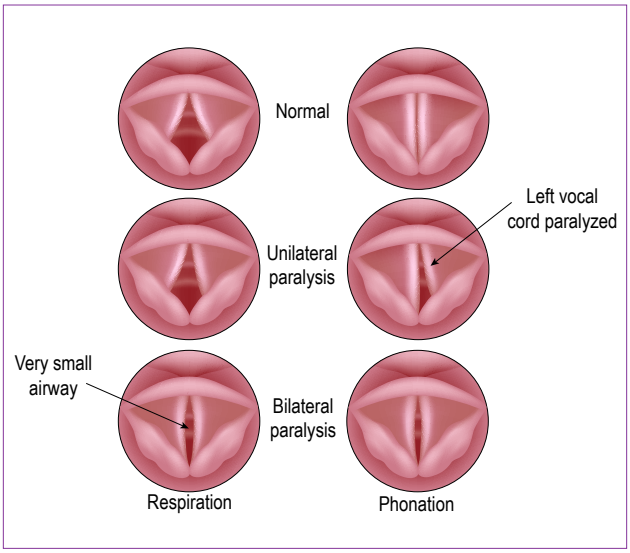

Figure 5-21. Vocal Cord Paralysis. Vocal cord function with breathing and with phonation (making sound) in the normal state, with one vocal cord paralyzed and with both vocal cords paralyzed. *Note*: With both vocal cords paralyzed, the airway is severely restricted.

Swallowing is the process that allows a substance (e.g., food, liquids) to travel from the mouth, through the back of the throat (pharynx), past the larynx without getting into the airway (the epiglottis is a flap of tissue that protects the airway during swallowing), down the swallowing tube (esophagus), and into the stomach. Swallowing is a complex neuromuscular process, partly voluntary and

partly automatic (involuntary). In normal swallowing, a complicated choreography of sequential muscle activity and resulting tissue motions (peristalsis) propels food from the pharynx to the stomach. Any of these tissue movements may contribute to dysfunction and/or pain to injured structures along the path.

Strangled patients report swallowing difficulty (dysphagia) and/or pain with swallowing (odynophagia) after the strangulation event at 2–58 percent (median 27 percent).[1,6,42,43,44,45,46,47,48,54] *Note*: The 2 percent rate came from the retrospective review of 300 police reports (non-medical interviewers)[49] and the 58 percent rate from a small number of victims (11/19).[50] Problems with swallowing after neck compression may be due to bruising or swelling of the esophagus, the tissues around the esophagus, tissue near the larynx, or to the laryngeal structures themselves.[57] Although uncommon in non-fatal strangulation, fracture of the hyoid bone causes painful swallowing.[27,58,59] Most swallowing problems are probably due to minor bruising and swelling and resolve spontaneously within hours to days. Persistent or increasing swallowing symptoms suggest structural injury to these areas and should have urgent medical evaluation. Just as with other structures previously discussed, post-traumatic swelling and bleeding may initially be asymptomatic and only begin producing symptoms later after progression of the damage with swelling and bleeding.

A cough is the result of stimulating the cough reflex that starts with an inhalation of air, then the vocal cords (or vocal folds) are tightly closed. The inhaled air is pressurized by the chest wall and diaphragm muscle, then the vocal folds (both = glottis) open quickly releasing a blast of air. The cough reflex is a normal and commonly employed bodily function that clears mucous, fluids, objects, and other irritants from the airway. Some authors have noted that strangled patients commonly report coughing after the event (23–58 percent).[48,50] Coughing is non-specific, but may be due to airway irritation or injury from the compressive forces. Coughing after strangulation usually clears spontaneously, but if persistent, should be medically evaluated.

A headache is another very common, non-specific symptom that has many causes (including emotional stress) and is frequently reported after strangulation (22–79 percent; median 44 percent).[45,47,48,50] Most post-strangulation headaches are self-limited and resolve without treatment. As discussed with other issues, if the headache is persistent or increasing, medical evaluation is necessary.

B. Symptoms Related to Decreased Brain Oxygenation

SYMPTOMS RELATED TO BRAIN ASPHYXIA	RANGE (PERCENT)	MEDIAN (PERCENT)
Vision symptoms	3–58	4
Urinary incontinence	1–11	1
"Incontinence"	3.5–8	5
Dizzy/light-headed	9–84	43
Loss of consciousness	9–47	23

The strangulation-specific symptoms discussed thus far have all been related to the direct effects of traumatic compression on the various tissues and structures within the neck that results in

local bleeding, swelling, tissue disruption, or damage. There is another class of strangulation symptoms, also potentially very dangerous, even lethal, that are the result of a decreased oxygen supply to brain cells because the neck compression has compromised blood flow, airflow, or both. The common denominator is neurologic dysfunction due to asphyxia to all or parts of the brain.

Blood flow to the optic nerve and retina of the eye comes from the internal carotid artery (via the ophthalmic and central retinal arteries). The brain carefully regulates this blood flow (and oxygen delivery) to be very constant. If blood flow to the optic nerve and/or retina is impaired, a number of visual symptoms may quickly result. Strangled patients report changes in vision including complete or partial loss, blurry or distorted vision, and blind spots. Similar to some other strangulation-related symptoms, the reported rates of occurrence vary quite a bit. Visual changes were documented from 3–58 percent with a median of 4 percent.[4,6,42,46,50] None of the authors reported any details about the visual loss, but physiologically, the disturbances probably occurred during compression and resolved shortly after release.

Other focal, transient neurologic changes have been reported in close proximity to compressive neck force. The mechanism is probably similar to what causes the visual changes just discussed but again, detailed descriptions are generally lacking. Temporary neurologic symptoms and findings are mentioned frequently when strangulation is discussed, but very little detail or validation has been published. Matusz[42] reported 3 percent of their 328 strangled patients had "numbness/tingling" and 1 percent had a "focal neurologic deficit." Zuberi[47] found 8.5 percent of his 142 patients had "neurologic symptoms." By far the most information on this topic was published by Wilbur, et al., in 2001.[6] The data was obtained via interviews and questionnaires given to women in three facilities who reported strangulation in abusive relationships. The facilities included a violence intervention and prevention center and two domestic violence shelters. The victims were queried about symptoms during and up to two weeks after being strangled. Forty women responded to the questions regarding neurologic symptoms.

Tinnitus is the perception of sound in the absence of acoustic stimuli and is commonly called "ringing in the ears." Tinnitus has been mentioned as a symptom in the strangulation literature and may be due to transient lack of oxygen to the acoustic structures, but it has many causes. Wilbur reported 36 percent of his patients had this symptom but supplied no details.

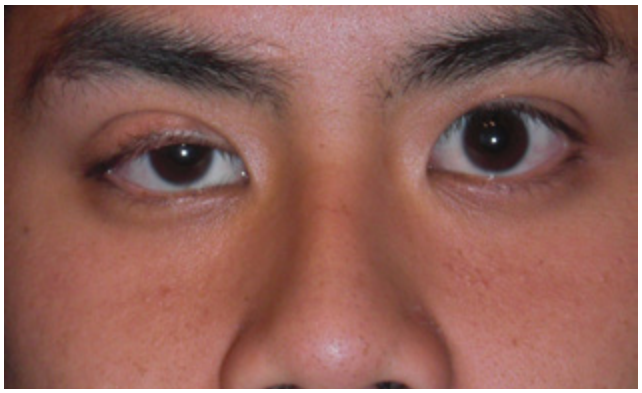

Figure 5-22: Right Eyelid Droop (Ptosis). Source: By Andrewya, Own work, Public Domain <*https://commons.wikimedia.org/w/index.php?curid=7028920*> (accessed Aug. 31, 2020).

Eyelid droop (ptosis) has multiple causes, but when it develops rapidly, it may be due to dysfunction of the third cranial nerve that could be caused by inadequate brain oxygenation or direct pressure on the network of sympathetic nerves surrounding the carotid artery; 20 percent of Wilbur's patients reported ptosis. See Figure 5-22: Right Eyelid Droop (Ptosis).

Facial droop is another cranial nerve palsy involving the seventh cranial nerve and was reported by 10 percent of patients in this study. See Figure 5-23: Right Facial Droop. One-sided body weakness (hemiparesis) implies widespread dysfunction of half of the brain (on the opposite side from the weakness) and is commonly seen in strokes. Wilbur reported that 18 percent of his strangled patients experienced hemiparesis. Paralysis is loss of muscle function; Wilbur did not specify which muscles were involved, but 5 percent of his patients reported it. Loss of sensation is loss of feeling (also not detailed by Wilbur) and 31 percent of his patients complained of it occurring within two weeks of the strangulation.

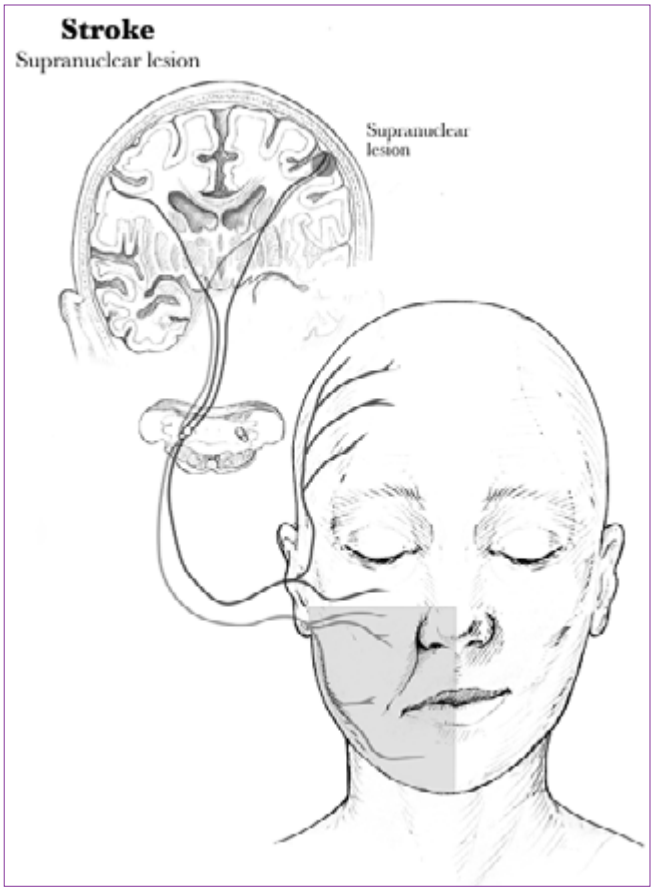

Figure 5-23: Right Facial Droop. With permission from EBM Consult <*https://www.ebmconsult.com/articles/anatomy-stroke-vs-bells-palsy?action=search&search_box=anatomy%20stroke%20vs%20bells%20palsy&search_within=&type_of_search=&onetimeadvanced=auto*> (accessed Aug. 31, 2020).

There has been a substantial body of literature published regarding the clinical symptoms and findings related to strangulation since Wilbur, et al., presented their work in 2001. It is concerning that their reports on neurologic symptoms associated with strangulation have not been observed, documented, or validated by any other research teams. One possible explanation is that Wilbur's methodology of using self-reported victim interviews and questionnaires were obtained up to two weeks after the event. Leading questions, victim comprehension, faulty memory (recall bias), pleasing the interviewer, and absence of any clinical (medical exam) verification all limit the validity of this type of research. Another factor potentially limiting the documentation of these symptoms (and corresponding findings) is the physiologic likelihood that if these compromises occur, they are likely very brief and resolve shortly after compression ceases and blood flow returns. The only time these findings have been documented by physical exam is in situations where strangulation has created permanent neurologic dysfunction, as in a stroke (discussed later).

The ability to contain feces in the colon and urine in the bladder and then voluntarily release these substances on demand (continence) depends on complex neurologic systems that involve the brain, spinal cord, and related nerves. Involuntary loss of urine (urinary incontinence) and/or involuntary loss of feces (fecal incontinence) have both been reported as a consequence of strangulation. Urinary incontinence appears to be more common. Urinary incontinence is

reported in 1–11 percent.[4,6,46] There are no specific rates reported for fecal incontinence, but several authors simply report "incontinence" at 3.5–8 percent.[43,47,50]

When the pertinent areas within the brain are deprived of oxygen for a long enough period, neurologic impulses to the circular muscles at the openings of the bladder and large bowel (sphincters) that provide containment, stop, and urine and/or feces is released. In 1944, Rossen[60] studied the effects of sudden cessation of all cerebral blood flow (i.e., strangulation) using an experimental device on volunteers and recorded the results. For safety and ethical reasons, this study could never be done today, but their findings are instructive. They found that after about 15 seconds of halted blood flow to the brain, some of the subjects started being incontinent of urine, and after 30 seconds, some began losing feces. Not all subjects lost bodily fluids and the time from cessation of cerebral blood flow to incontinence varied, but no urine was lost before 15 seconds and no feces lost before 30 seconds. These are important physiologic benchmarks today in estimating the duration of strangulation compression.

C. Mental Status and Behavioral Changes

The class of symptoms that include mental status and behavioral changes is arguably the most sensitive indicator that the brain is being deprived of adequate oxygen. At the onset of arterial compression, the victim soon begins to experience the effects of oxygen deprivation as altered mental status (AMS). Light-headed is the most common way victims describe this sensation but also use myriad other terms, including:

- woozy
- reeling
- confused
- whirling
- dizzy
- unsteady
- swimming
- about to faint
- weak and dizzy all over (WADAO)

Early altered mental status symptoms are frequently reported by strangulation victims (9–84 percent; median 43 percent).[4,6,42,46,48,50] It is important to understand that altered mental status is really a spectrum that begins with the relatively mild "light-headed/dizzy" family of symptoms described above. If compression is sustained, progression to full loss of consciousness occurs, and the victim has no awareness and is unresponsive to all stimuli. What is experienced by the victim (and seen by witnesses) will vary depending on the severity and duration of the neck compression. Physiologically, this corresponds to the temporal path from mild hypoxia in the brain to anoxia. See Figure 5-24: Anoxia Versus Hypoxia.

The extreme situation occurs when all blood flow (and oxygen supply) to the brain is abruptly and completely cut off. There is some experimental work in humans that illustrates what happens. In the Rossen study,[60] previously mentioned, a specially designed vest was inflated to 600 mmHg within 1/8 of a second. This pressure immediately stopped all cerebral blood flow to the brain. See Figure 5-25: Rossen Vest.

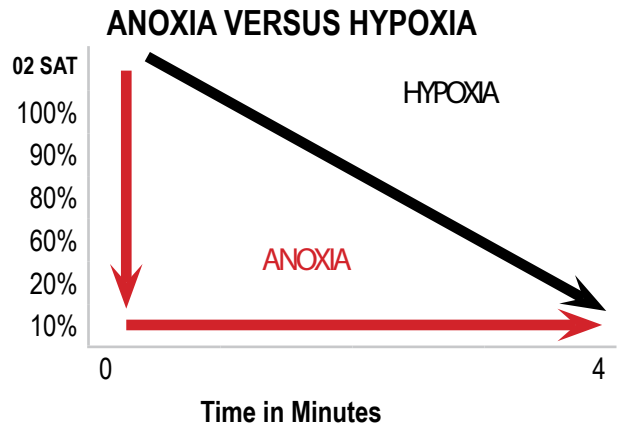

Figure 5-24: Anoxia Versus Hypoxia.

Figure 5-25. Rossen's Experimental Strangulation Vest. Source: *Acute Arrest of Cerebral Circulation in Man*: *Revisited* (2007) Presented by Brian Smith National Dysautonomia Research Foundation <*https://www.slideshare.net/BrianSmith144/briansmithredwingstudiespaper*> (accessed Aug. 31, 2020).

The researchers made a number of observations and measurements during and after vest inflation. Fixation of the eyes occurred in about 5–6 seconds. Most subjects had fixation looking straight ahead while some fixated with their eyes in an upward gaze. About one second after eye fixation, the subjects lost consciousness; all lost consciousness within 10 seconds. At loss of consciousness, the researchers released the vest pressure (except for some who were subjected to longer periods of anoxia as discussed above regarding incontinence). Shortly after vest release, many subjects exhibited "anoxic convulsions" (or myoclonic jerks), which are brief periods (6–8 seconds) of rhythmic jerking of the extremities. All subjects returned to full consciousness within 3–12 seconds. None had any memory of the jerking. When questioned about the experience, some subjects recalled brief sensations of tingling in the extremities and some narrowing of vision or "spots" just before they went out. Awareness of these observations is important because even though the victim may have no memory of events (including no recollection of being unconscious), a witness may be able to confirm loss of consciousness by describing eye fixation or jerking.

Reay and Holloway[61] addressed the same issue by using "five muscular, athletic law enforcement volunteers" to undergo a "carotid sleeper" hold while being medically monitored to assess the physiologic effects of this law enforcement technique. This procedure reduced carotid blood flow to about 10 percent of normal and did so within about 6 seconds from the onset of compression while leaving vertebral blood flow intact. The range from onset of neck compression to loss of consciousness was 6.4–9.7 seconds with an average of 7.7 seconds. This is very consistent with Rossen's data. After release, blood flow returned to normal in 7–23 seconds with an average of 13.7 seconds. This study also affirms that the 15 percent of cerebral blood flow in the vertebral arteries (and the distribution of that flow to the posterior brain structures) is not sufficient to maintain consciousness. The study also shows that in order to quickly lose consciousness, carotid flow does not have to be stopped completely, just significantly reduced.

The scientifically validated information about how quickly obstruction to blood flow in both carotid arteries can produce unconsciousness is a very important forensic benchmark in addressing the issue of duration of compression. Other temporal markers of compression duration are urinary incontinence (15 seconds) and fecal incontinence (30 seconds). *Note*: Any patient who was incontinent because of neck compression must have also been unconscious, because both of the incontinence compression times are greater than the unconsciousness time frame of 7–10 seconds.

In many real-life strangulation situations, time from onset of compression to sufficiently compromised carotid flow to produce unconsciousness may be longer than a few seconds because the victim is struggling and/or the compressive force is not consistent, strong enough, or properly placed. As the victim transitions more slowly from cerebral hypoxia to anoxia, brain asphyxia develops more gradually allowing more behaviors to manifest. The victim may also be able to describe more symptoms. Progressive hypoxia also occurs with many lung problems and has a fairly consistent clinical presentation. Initially, patients complain of shortness of breath or "air hunger"; the respiratory rate increases as does the pulse rate. A headache may develop. As more of the circulating blood contains less and less oxygen, the color of the blood gets less red and more bluish. This is known as cyanosis and is most visible in blood vessels closest to the skin's surface (e.g., face, lips, and fingernails). From a behavioral perspective, early hypoxia creates anxiety, which, as it worsens, gives way to restlessness and agitation, and then desperation and panic. As the behavioral response escalates, mental status and functioning decrease from difficulty communicating, to confusion and disorientation, then weakness and lethargy, and finally unconsciousness. As strangulation victims slide further down this slope during compression, just before losing consciousness, many report the fear of death giving way to resignation and thoughts of their family.

Loss of consciousness during strangulation is common with rates ranging from 9–47 percent (median 23 percent).[4,6,42,43,46,47,50] It may be very difficult to establish loss of consciousness in the history because victims frequently can't recall whether or not they were unconscious. In these cases, some helpful follow-up questions to ask include:

- Do you remember everything clearly, or are there gaps in your memory?
- Regarding any gap, what is the last thing you remember before the gap and the next thing you recall after the gap?
- Did you start in one place and end up in another and can't recall how you got to the second place?
- Did you lose either urine or feces and not know when or why?

D. Absence of Symptoms

The focus of this section has been the variety and frequency of symptoms experienced by victims of strangulation. The converse is also noteworthy; that is, the frequency of patients who report strangulation, but do not acknowledge any symptoms. Strack[49] reviewed the records of 300 strangled patients and 67 percent had no documented symptoms. The caveat regarding this study has come up previously: These histories were taken by police officers, not health care personnel.

Both Zilkens[46] and DeBoos[4] reported that 33 percent of their patients had no symptoms. Other reasons for lack of documented symptoms may relate to rigor of the study design, or the time interval between the event and the history. It is possible that some interviewers only asked about current symptoms and did not document symptoms that had resolved. Difficulty with patient memory and recall bias may also be contributors to blank symptom histories.

The most important point here is a warning: Do not overinterpret or extrapolate the lack of documented symptoms to conclude that nothing happened, or the patient is in no danger. These inappropriate conclusions are especially problematic when evaluating "hearsay" histories taken by others or written information without adequate detail about exactly how the data was gathered.

VII. Physical Findings Documented After Strangulation

The point just made, that lack of documented symptoms does not refute the history of a strangulation event nor assure the health or safety of the patient, buttresses the same point regarding visible injuries after strangulation. About half (range 31–50 percent; median 49 percent) of non-fatal strangulation assaults do not have visible neck findings.[4,43,46,49,62] In fact, up to 40 percent of strangulation homicide victims at autopsy have no visible external neck findings.[7,63]

Unfortunately, lack of visible neck findings has played a key role in the historic false belief that a normal neck exam in a strangled patient could predict lack of serious injury, so comprehensive evaluation or observation was unnecessary. Law enforcement was willing to accept the same argument and assume either no crime or at least not a serious one. Research and better training are dispelling these myths.

A. Redness (Erythema)

The common visible physical findings in the other half of strangled patients include redness, abrasions, bruising, and petechiae. Redness (erythema) is not a structural injury and resolves rapidly. The redness is the result of pressure to the skin, which causes temporary dilation of the local blood vessels (hyperemia) so more blood is flowing close to the skin's surface. There are two caveats regarding redness. First, there are many causes of erythema besides traumatic pressure. The other etiologies include infection, inflammation, allergic reaction, chronic skin diseases, sun burn, reaction to chemicals or topical medications, and emotional or drug-related flushing. The examiner must be very cautious about interpreting the cause for the redness and ***not*** automatically assume it is due to trauma.

The examiner should do four things when evaluating erythema. First, take a good history and explore the potential mechanism of injury and any medical conditions, medications, or activities that may explain the redness. Next, palpate the redness and determine if it is tender.

- Pain is the subjective perception of discomfort and just exists (e.g., headache, toothache).
- Tenderness is discomfort that is provoked by touching or palpation.

If the red area is tender, an acute problem is more likely, including trauma, but inflammation and infection will also exhibit tenderness. The third task is documentation (written description and forensic photos). The fourth and final task is to arrange a follow-up reassessment in a few days.

The erythema will probably have resolved or at least faded, but it is possible that at follow-up, the redness will be unchanged and may be a normal finding for that patient.

EVALUATION OF REDNESS (ERYTHEMA)	
History	❑ Define mechanism of injury ❑ Explore non-traumatic causes
Palpate	❑ Non-tender » Less likely acute cause ❑ Tender » Possible trauma » Possible infection or inflammation
Document	❑ Written description + diagram ❑ Forensic imaging
Follow-up	❑ Re-evaluate in 3–7 days ❑ Document appearance and tenderness ❑ Forensic imaging ❑ Refine and document assessment

The second caveat about redness is that it may be the first finding of a bruise and represent blood that has leaked into the superficial skin tissue after structural injury. In this situation, the red area will be tender and will not blanch on palpation. Blanching is pressure on tissue that when released, reveals a decrease or disappearance of the redness for two to three seconds, then the redness returns. This is exactly what happens with erythema from dilated blood vessels since the pressure temporarily redistributes blood flow. Because the blood from a bruise is no longer in a blood vessel, it doesn't move or change. In this scenario, the follow-up exam will reveal the development of a bruise (ecchymosis).

B. Abrasions

The second common visible injury class seen in strangulation is abrasion. The abrading force damages superficial skin tissue and may remove layers of skin. There are two main types of abrasions. The first is a scrape or brush abrasion in which the injuring force is parallel or tangential to the skin's surface. Tissue is scraped away and removed or may build up at the end of the wound on the opposite side from where the force started; this is referred to as a skin lift and is akin to a plow pushing snow. The edges of abrasions are irregular, and the depth is variable. Depending on the age of the injury, there may be active bleeding or crusting from healing. Another possible related finding with scrape abrasions is that foreign material may get embedded into the abrasion, depending on the nature of the injuring force. In strangulation, the most common type of scrape abrasion comes from the scratching of fingernails. The scratches may be from the assailant's nails or the victim struggling. See Figure 5-26: Examples of Scratch Abrasions from the Assailant's Fingernails.

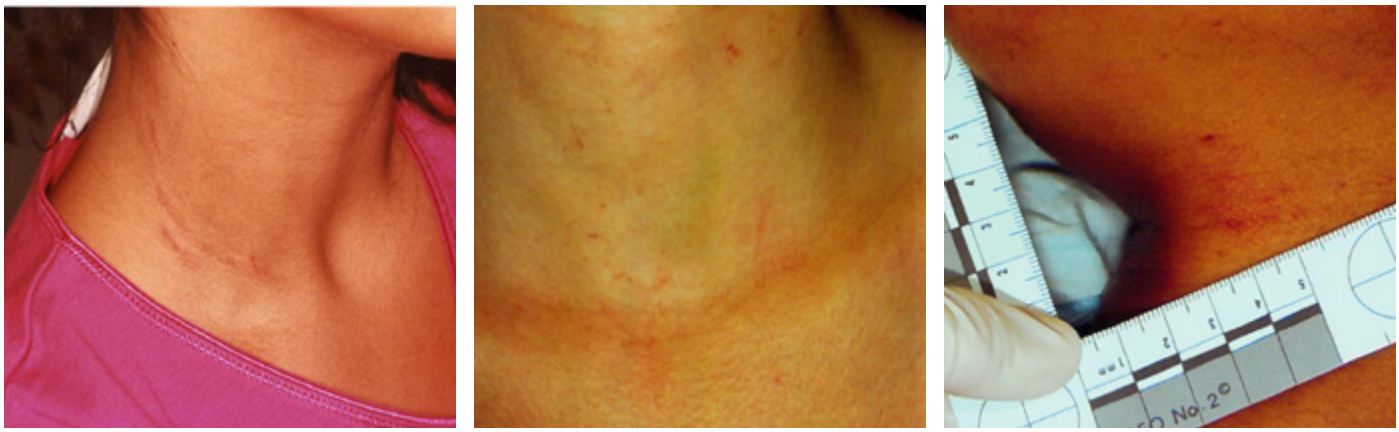

Figure 5-26: Examples of Scratch Abrasions from the Assailant's Fingernails.

Neck abrasions may also be self-inflicted by the victim in a desperate attempt to remove the strangling force. These injuries are referred to as claw marks. See Figure 5-27: Self-Inflicted Defensive Claw Injuries.

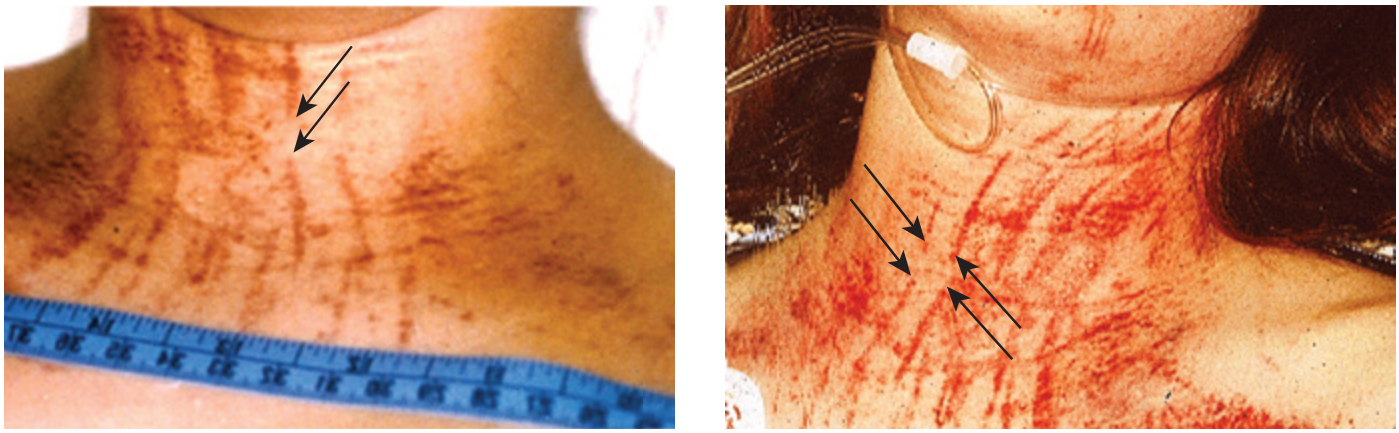

Figure 5-27: Self-Inflicted Defensive Claw Injuries.

The arrows show the interruptions in the linear abrasions where the victim's nails bounced over the strangling ligature.

The other type of abrasion is an impact abrasion. The force of the injuring object here is perpendicular to the skin's surface and tissue is crushed rather than scraped. These are less common in strangulation but may be seen with imprinting of a ligature creating impact abrasions. Impact abrasions often result from an object (e.g., hammer, club, bar) striking the skin. This type of abrasion may pattern the injuring object.

C. Bruises, Contusions, and Ecchymoses

Bruising is the third common injury type seen in strangulation. A bruise occurs when blunt force trauma ruptures blood vessels under the surface of the skin and blood escapes into the surrounding tissue. There is variable terminology applied to bruising. A bruise may also be

referred to as a contusion. Some experts use "contusion" to describe the blunt force *mechanism* that causes blood vessels under the skin to rupture, causing the injury. Ecchymosis (plural ecchymoses) is the visible blood from the injury just under the surface of the skin. In order for blood outside blood vessels to be visible, that blood must be within about 3 mm (1/8 inch) of the skin's surface. If it is deeper, obviously the injury is still present, just not visible. The area is likely to be tender, despite clear overlying skin. This is another forensic opportunity for a clarifying follow-up exam in a few days to see (and document) if a bruise (or ecchymosis) has appeared. The blood under the skin may be absorbed in place and never be visible or it may migrate closer to the surface and be seen later. The migrating blood in the tissues may move by gravity and appear later at a site distant from the actual injury. One clue to this phenomenon is that the distant ecchymosis will not be tender because there is no underlying injury.

There is considerable forensic interest in potential techniques for finding and documenting unseen injuries. These techniques include alternate light sources (ALS), filters used with ALS, thermography (sensitive heat detectors), and various digital photo techniques, often combined with computer software. Unfortunately, there is currently more belief and marketing zeal regarding these products than there is solid science to support their use. Many of these products and techniques may be promising. Unfortunately, what is universally lacking is adequate scientific validation.[64,65] Well-designed experimental studies, actual case work experience with follow-up, and validation of findings using reliable techniques (e.g., imaging, dissection) are all possible ways to prove the reliability of these new technologies.

Mechanism of injury usually influences the nature and appearance (or lack thereof) of the finding. Blunt force or compression that is applied with a soft object or over a broad area may create little or no tissue damage. Conversely, if the force object is hard, focal, or narrow, visible injury is more likely. If the victim resists, there are probably going to be more injuries (both in number and severity). Again, the converse may be true. If the victim is unconscious, expect fewer injuries. Visualizing any type of injury or finding is facilitated by contrasting shapes and colors. The more deeply pigmented the victim's skin, the more difficult it is to see findings.

Another important forensic injury concept is patterning. Patterning simply means that the wound or finding gives some information about the injuring object or force. This may be true for bruises, abrasions, and sharp force (stab or incised) wounds. The firm, focal pressure from finger and thumb tips may create fingertip (or touch pad) bruises. A one-handed grip on the victim's upper arm may leave a thumbprint bruise on the front of the arm and multiple, parallel fingertip bruises on the back of the arm, if the assailant was standing in front of the victim. Similar patterning findings may be found on the strangled victim's neck and give information about the nature of the grip and the position of the parties. See Figure 5-28: Strangulation Mechanisms and Bruises. Patterning is often present in ligature strangulation. See Figure 5-29: Pattern Strangulation. A patterned abrasion may result from the injuring object itself or from something that is trapped between the assailant's hands and the victim's skin and "imprinted" onto the skin. See Figure 5-30: Ligature Strangulation with Necklace.

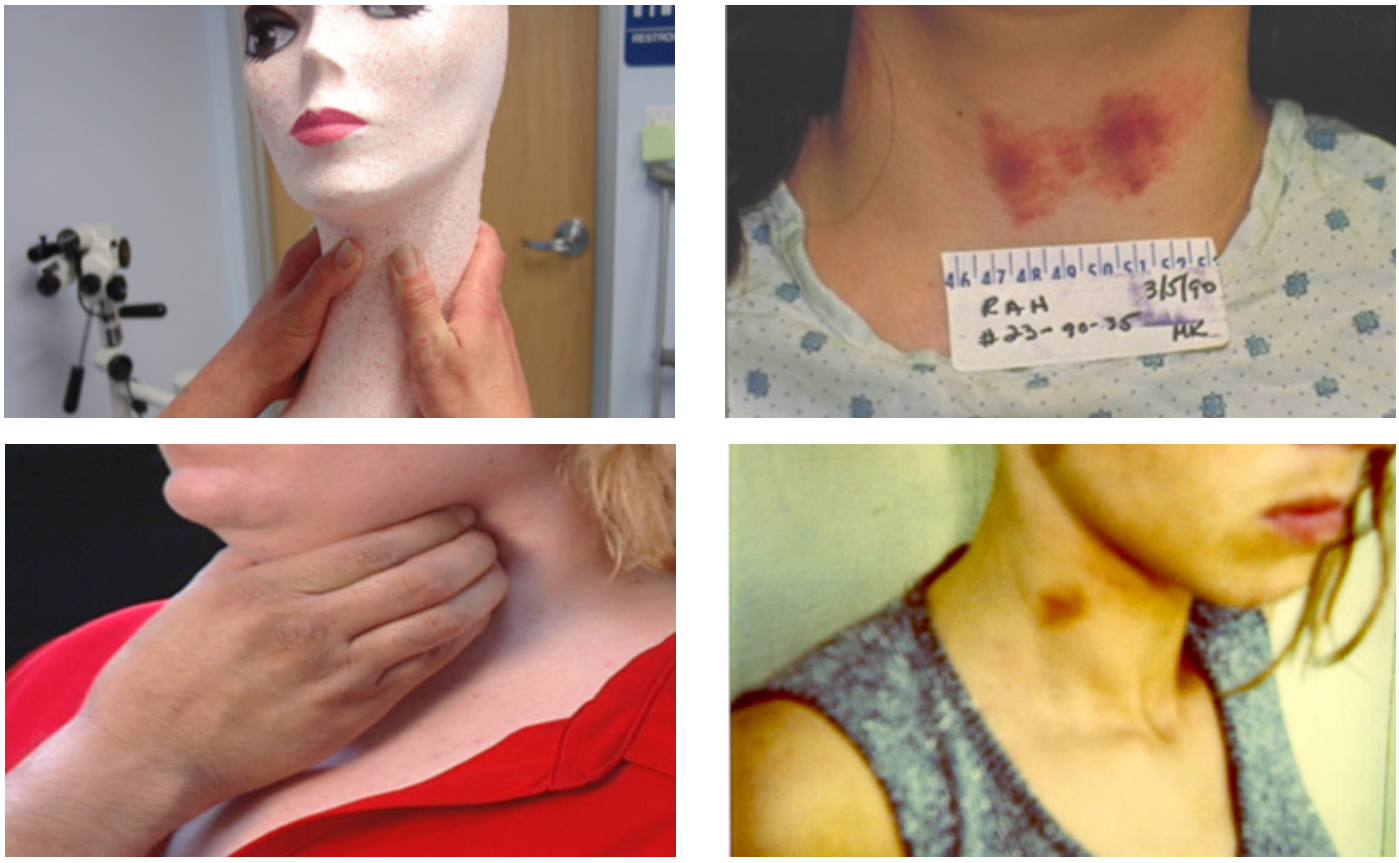

Figure 5-28: Strangulation Mechanisms and Bruises. The strangulation mechanisms are demonstrated on the left and examples of resultant fingertip bruising and patterning of injury are shown on the right.

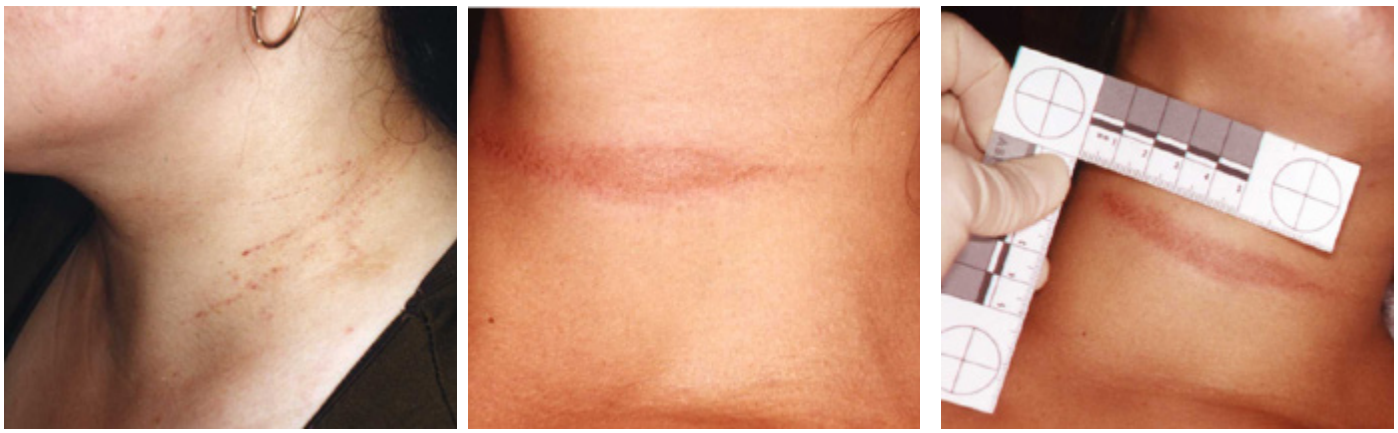

Figure 5-29: Pattern Strangulation. (Left) Strangled with "string" (multiple loops). (Center and Right) Strangled with a large diameter "rope."

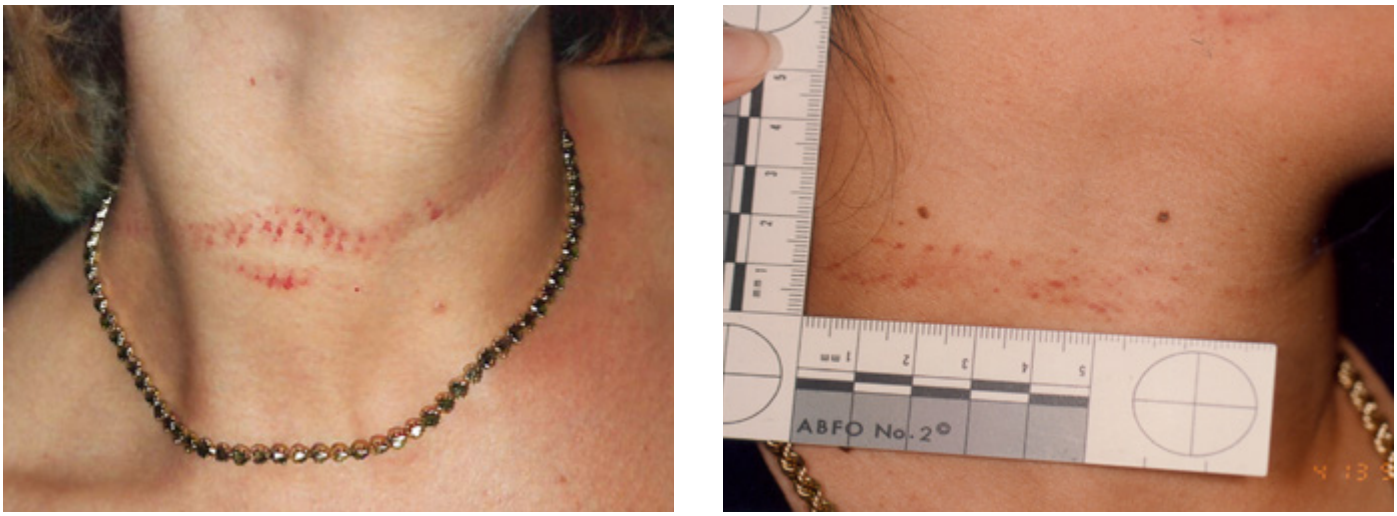

Figure 5-30: Ligature Strangulation with Necklace. The picture on the left shows the patterned impact abrasions. The picture on the right shows the impact abrasions with patterning when the necklace was trapped between the assailant's hands and the victim's skin.

Another type of unique injury, sometimes seen in strangulation, is a bruise or abrasion underneath the victim's chin from chin drop. This can occur reflexively as the victim lowers her chin against the assailant's hands (or ligature) and moves her chin back and forth in an attempt to release the strangling force. See Figure 5-31: Chin Drop Abrasion.

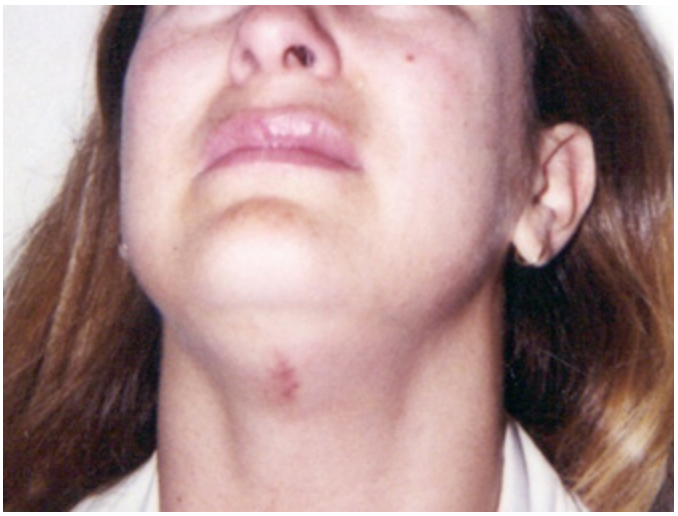

Figure 5-31: Chin Drop Abrasion.

D. Petechiae

Petechiae are small (1–2 mm), oval, or round red spots of blood that are caused by rupture of tiny blood vessels as a result of increased pressure inside the veins. Petechiae are a very significant forensic finding. Petechiae have four helpful distinguishing characteristics:

- They are non-palpable and "flat" (in the same plane as the tissue they are in) and cannot be felt on palpation.
- They are non-tender and do not hurt when touched.
- They do not blanch and do not change color when pressed.
- They appear in crops with multiple petechiae in the same area. It is theoretically possible for a single red spot to be a petechia, but such a diagnosis is difficult to substantiate because of the nature of the mechanical forces involved.

The generation, appearance, and distribution of petechiae are influenced by many factors. A comprehensive history and thorough physical examination—and sometimes an autopsy—are necessary to fully understand the petechiae in an individual case.

1. Geographic Petechiae

In strangulation, the most common type of petechiae are geographic petechiae that are only found above the level of compression. Geographic petechiae in non-fatal strangulation have been reported in a range of 5–54 percent (median 22 percent).[1,6,42,45,46,47,50,66,67] The physical and anatomic factors that cause geographic petechiae are specific. All four jugular veins must be simultaneously and completely blocked (minimal pressure of only about 4.4 pounds is required). Some degree of cerebral arterial blood flow must be maintained. Where that arterial flow comes from is a subject some experts debate. Conventional opinion is that some level of carotid artery flow is necessary, but others have suggested that if the vertebral arteries are open and both carotids are closed, geographic petechiae can form. Specific (and probably experimental) data will be required to resolve this anatomic and physiologic argument. But the underlying physics of the situation are clear: When all jugular flow is stopped and arterial blood is still flowing into the brain, the veins within the brain (above the constriction) will begin to dilate (engorge) to accommodate the influx of blood. If the total jugular obstruction is maintained for at least 20–30 seconds, the pressure in the venous system will increase to a point that the smallest and weakest venous structures (capillaries and venules) will rupture creating petechiae. There is one case report involving an unusual ligature strangulation where petechiae were reported to have formed in two seconds.[68] If one jugular is released before the time period, the brain will drain and the "petechiae clock" is reset. The petechiae will be visible when the ruptures are close to the surface of the skin or mucous membranes (the tissues that line the inside of the nasal passages and the oral cavity). Petechiae form most easily in lax tissue that does not effectively contain bleeding like the eyelids and tissue surrounding the eyeball (conjunctiva). Petechiae usually resolve spontaneously within a few days. See Figures 5-32: Geographic Petechiae and 5-33: Geographic Petechiae Over Time.

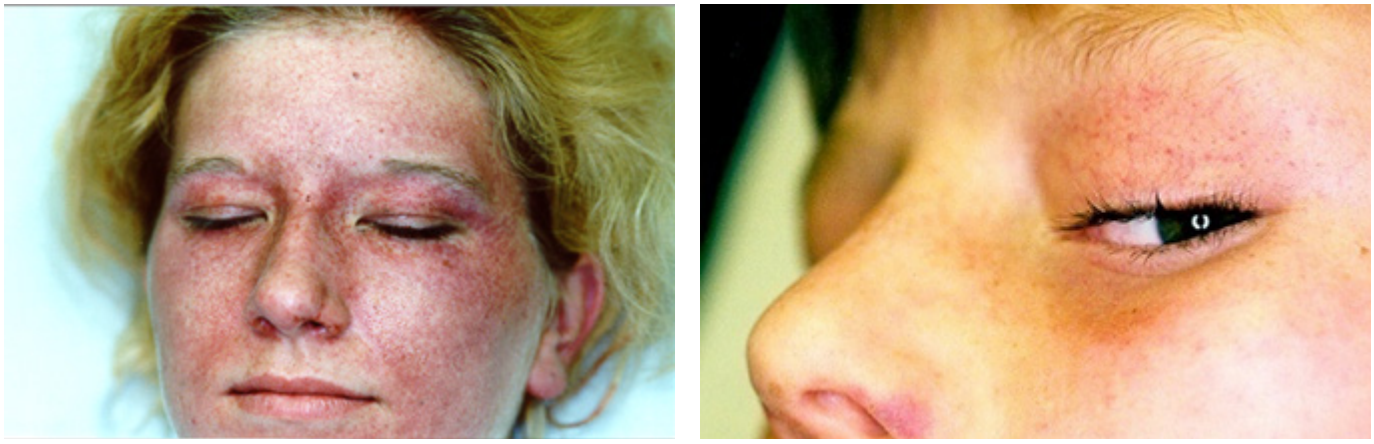

Figure 5-32: Geographic Petechiae.

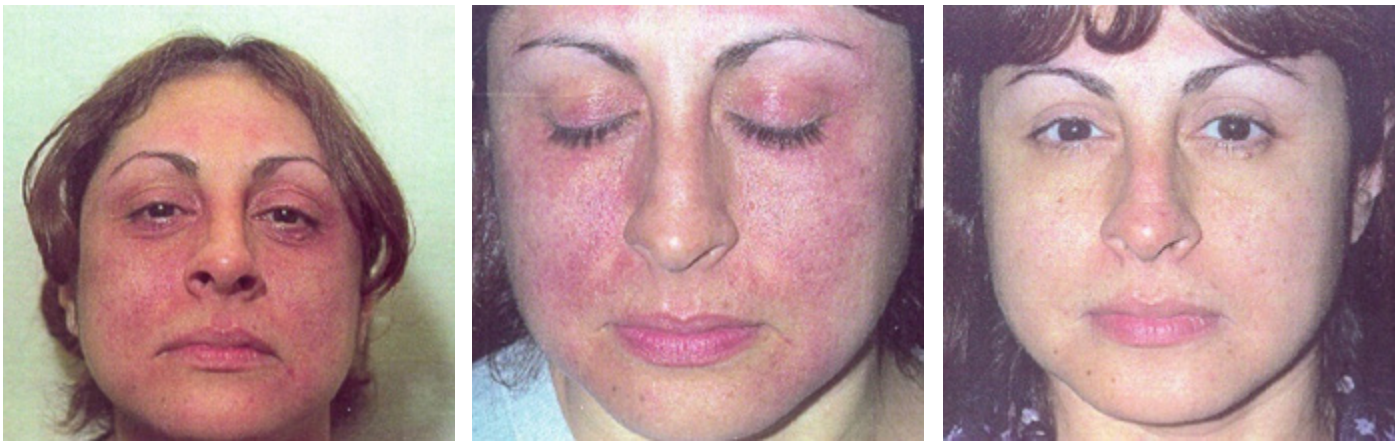

Figure 5-33: Geographic Petechiae Over Time. (Left) 1 day; (center) 2 days; (right) 30 days.

2. Subconjunctival Hematoma

Another post-strangulation finding closely related to petechiae is subconjunctival hematoma. Subconjunctival hematoma has been reported in 4 percent of patients after non-fatal strangulation.[4,46] A hematoma is a collection of liquid blood under the skin as a result of blunt force trauma rupturing blood vessels. Usually this pool of blood is deep enough in the tissues, so no visible injury is seen on the overlying skin surface. A hematoma is likely to be tender to palpation and may exhibit induration, a fullness or lump on palpation. A subconjunctival is an exception to the usual hematoma rules. The same strangulation forces that increase venous pressure and cause geographic petechiae also increase venous pressure in the tiny veins in the lining of the eyeball (conjunctiva) and rupture vessels under the conjunctiva (subconjunctival) to form a hematoma. See Figure 5-34: Subconjunctival Hematomas. The reason this bleeding is not petechial is because the conjunctival tissue is so lax that bleeding is not contained into petechiae but continues to form much larger pools to become hematomas.

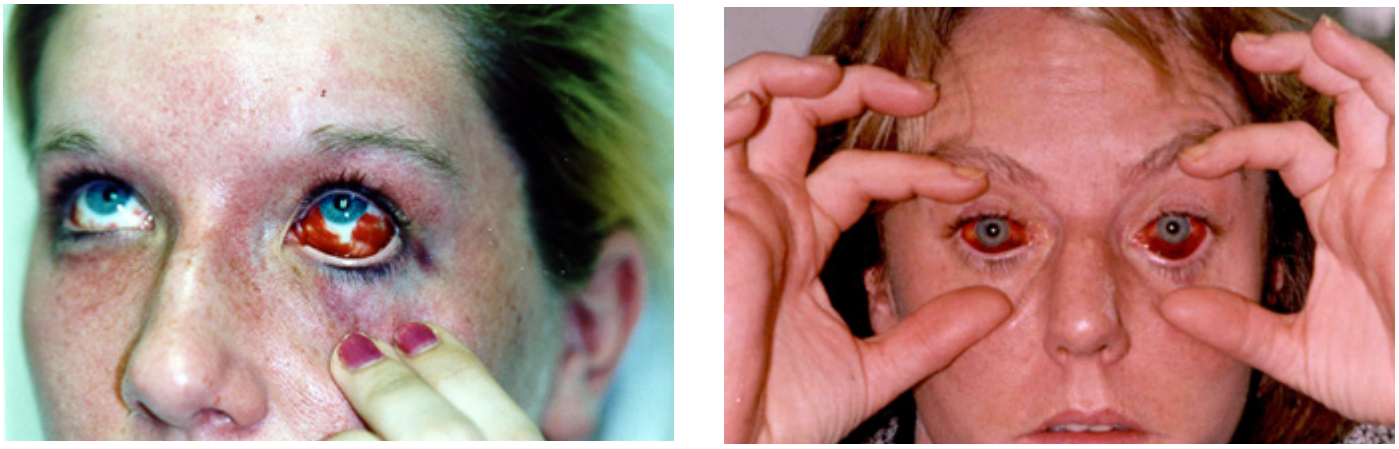

Figure 5-34: Subconjunctival Hematomas. While disturbing for the patient, this injury is not dangerous, painless, and does not affect vision. Subconjunctival hematomas resolve spontaneously within a few days to a week.

Unseen on the physical exam are the petechiae that form under the scalp, in the brain, on the larynx, and other internal structures above the constriction. The presence of geographic petechiae is another temporal marker for the duration of sustained neck compression (20–30 seconds). Another feature of petechiae that may give information about the details of the event is when petechiae are densely confluent (florid or suffused). This is most commonly seen in strangulation homicide victims and suggests that there were multiple, separate compressions that created waves of petechiae culminating in more petechiae than normally seen.

3. Generalized Petechiae

Generalized petechiae are found bodywide and may be created by a number of factors including suffocation by smothering and positional, mechanical, and traumatic asphyxia. In smothering, the incoming air is blocked from entering into the body and as the victim struggles, unsuccessful attempts at inhalation create significant negative pressure in the chest, which can stop the general inflow of venous blood from the body back to the heart. This impeded venous return from the body can create the same scenario as seen in the neck and venous pressure will increase and cause ruptures and petechiae anywhere in or on the body. This phenomenon can also create petechiae in the eyes and on the face. Compressing the chest and/or abdomen or preventing normal lung function by abnormal body position allows the lungs to collapse, which can result in the same cascade of events seen in smothering and produce generalized petechiae in the eyes and face. It is not uncommon for the assailant to both sit on the victim's chest and abdomen and simultaneously strangle the victim manually, thus creating petechiae from two mechanisms with a potentially confusing petechial pattern.

Serious strangulation, including strangulation homicide, may occur with no petechiae whatsoever. In this scenario, there was complete, simultaneous obstruction of jugular venous outflow and obstruction of cerebral arterial inflow. Without arterial inflow, the pressure required to rupture venous vessels will not develop. Most experts agree that if all carotid flow is stopped, geographic petechiae will not form. The role of isolated vertebral artery inflow and the generation of petechiae, as discussed above, is unresolved.

4. Petechiae from Non-Assaultive Causes

It is important for any professional who deals with interpersonal violence to realize that the proper understanding of petechiae goes far beyond strangulation, smothering, and positional/traumatic asphyxia. As discussed above, petechiae are caused by mechanical forces. Impeded venous return causing increased venous pressure and subsequent small vessel rupture with the generation of petechiae have been discussed in the context of assaultive behavior. Many non-assaultive, non-asphyxial activities can also cause petechiae. The Valsalva maneuver consists of voluntarily closing the glottis (forcing both vocal folds tightly together) and trying to forcefully exhale (no air will escape). The physiologic response includes significantly increased pressure inside the chest and abdominal cavity. The pressure may be sufficient to impair venous return from the

body, rupture venules and capillaries, and produce petechiae anywhere, including the neck, face, and eyes. The Valsalva may also produce subconjunctival hematomas. The practical reality is that the Valsalva maneuver occurs frequently in many situations. Labor and delivery nurses probably see more petechiae and subconjunctival hematomas than any other class of health care providers because the stresses of labor and the pushing of delivery provide the perfect set of physiologic variables. Another common scenario is straining with constipation or during heavy lifting. Even vigorous coughing, sneezing, or vomiting has produced generalized petechiae. Acute right-sided heart failure may restrict venous inflow into the heart to a degree that venous pressure rises high enough that small venules rupturing create facial petechiae.

5. Petechiae from Disease Conditions

Petechiae may form from causes that have nothing to do with increased pressure inside the blood vessels. One large class of conditions causing petechiae has to do with changes and vulnerabilities within the small vessels themselves. Vasculitis is the inflammation of blood vessels. Many types of vasculitis, especially the small vessel vasculitides include petechiae. Many infections can damage the vascular wall and create petechiae. Examples include bacterial infections (meningococcemia, Group A streptococcus, pneumococcal meningitis), rickettsial disease (Rocky Mountain spotted fever), viral infections (infectious mononucleosis [EBV]), viral hemorrhagic fevers, dengue, cytomegalovirus, echovirus, and coxsackievirus. Abnormalities related to platelets (blood component mainly involved in blood clotting) are associated with petechiae. Low platelet counts (thrombocytopenia) may create petechiae.

Other examples of platelet-related petechiae include immune thrombocytopenia (ITP), sepsis, disseminated intravascular coagulopathy (DIC), liver disease, acute leukemia, and thrombocytopenia caused by many medications. Abnormal blood clotting function may be associated with petechiae (von Willebrand syndrome). A variety of unrelated diseases and conditions include petechiae as a finding or as part of the diagnosis, e.g., fat embolism syndrome, sunburn, endocarditis, and scurvy (perafollicular hemorrhage).

When the expert witness is discussing petechial findings in the context of strangulation, it is reasonable to expect questions regarding the other potential etiologies of petechiae. Many of the conditions listed above are either acute (and many very serious) or chronic with a known history. A thorough history and physical examination or a careful review of the medical records should be sufficient to exclude these less common causes of petechiae. One final caveat regarding petechiae is the inappropriate use of the term related to blunt force traumatic findings. Petechiae are caused by increased venous pressure or blood leakage from damaged or diseased small blood vessels, ***not*** from direct blunt force trauma to normal blood vessels. Unfortunately, "petechiae" has been used in clinical conversation and in literature to describe small, blunt force injuries to superficial tissue; these injuries are more accurately described as traumatic "microhemorrhages."

E. Less Common Medical Consequences of Strangulation

Less common problems following strangulation include injuries to the thyroid gland and rupture of airway structures. Strangulation compression damage may allow air to escape from the airway into other tissues. Though rare, these situations may be life-threatening and include free air in the chest cavity (pneumothorax), air around the heart (pneumopericardium)[69] or air between the lungs (in the mediastinum or pneumomediastinum).[69] If the free air gets close the body's surface, it may be detected as palpable "crackles or crunches" and is called subcutaneous emphysema.[69] The thyroid gland overlies the larynx and is obviously vulnerable to strangulation compression. Another rare, but life-threatening result of strangulation is thyroid storm or thyrotoxic crisis in which thyroid function is in a runaway state with altered mental status, fever, rapid pulse, and heart failure.[70] Thyroid storm rarely occurs without a preexisting history of thyroid disease, and strangulation-induced thyroid storm is an exception.

VIII. Causes of Immediate Death from Strangulation

The Uniform Determination of Death Act (UDDA)[71] states:

> **§ 1. [Determination of Death].** An individual who has sustained either (1) irreversible cessation of circulatory and respiratory functions, or (2) irreversible cessation of all functions of the entire brain, including the brain stem, is dead.

Under criteria (2), the individual meets both the legal and medical declaration for death despite the fact that medical technology may be employed to support tissue oxygenation and nutrition. This is in essence "brain death" and life support is usually continued until the family has gathered or until organs are harvested.

There are four generally accepted causes of immediate death from strangulation.[63]

1. Arterial Death: When the arterial blood supply to the brain is shut off long enough to reach the UDDA criteria for death. Specific conditions create some variability, but in general, irreversible damage to parts of the brain begins at about two minutes of absent blood flow and by 4–5 minutes, UDDA criteria are met.
2. Airway Death: When the airway is occluded preventing oxygenation of the blood long enough to reach UDDA criteria. The time frames should be very similar to arterial death.

   Sauvageau and colleagues[72,73,74] have studied human asphyxia by analyzing 14 filmed hangings (autoerotic accidents, suicides, and one homicide) and recording the agonal responses. Some of their findings confirmed the initial responses to cerebral asphyxia noted by Rossen.[60] Since the end point of the Sauvageau films was death, they were able to add additional observations. Of note is the finding that all of the hanging subjects ceased agonal respiratory effort at or before 2 minutes and 37 seconds and four stopped all muscle motion within 3 minutes and 15 seconds. Although these findings raise interesting questions about when death may have occurred, none of the subjects were medically monitored, so the authors did not speculate on whether death might have occurred earlier than the traditionally accepted four minutes.

3. Venous Occlusion Death: The result of sustained, bilateral jugular venous occlusion with some degree of maintained cerebral arterial inflow of blood. Asphyxiation of the brain happens more gradually and more variably than with arterial occlusion. At some point, venous dilation and overfilling will prevent the ingress of oxygenated blood and the brain will be filled with venous deoxygenated blood creating stagnant hypoxia in the brain. Altered mental status develops in about two minutes followed by loss of consciousness; respiratory depression worsens; brain asphyxia and death follow within minutes.[63]
4. Cardiovascular Death: The pathophysiology of the process is well-known and accepted, but it's role in strangulation lacks credible data and is debated.

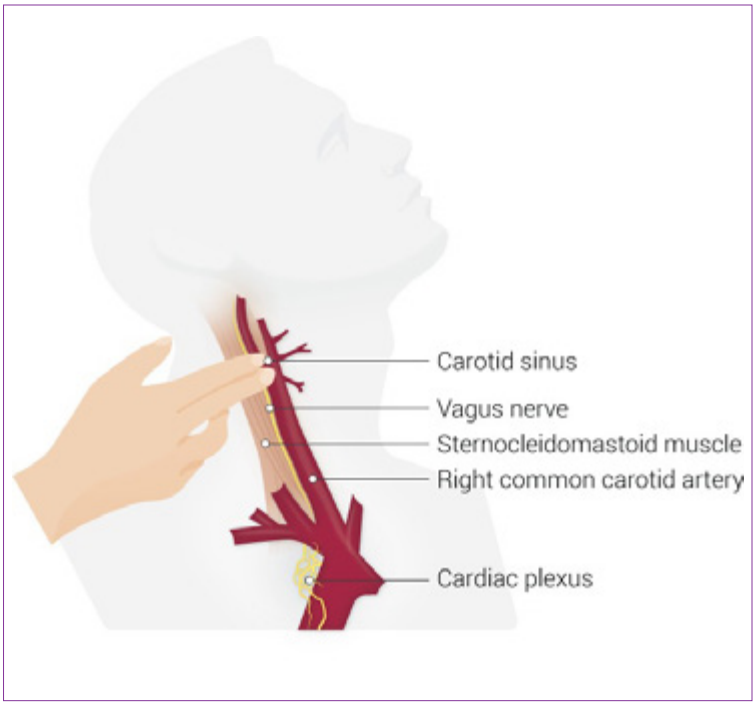

Figure 5-35. Carotid Sinus and Surrounding Anatomy. Source: Brian Kenny and Bruno Bordoni, Neuroanatomy, Cranial Nerve 10 (Vagus Nerve) (Jan. 2019) StatPearls. Contributed Illustration by Beckie Palmer. Creative Common license <*https://www.ncbi.nlm.nih.gov/books/NBK537171/*> (accessed Aug. 31, 2020).

The carotid sinus is a dilated area at the base of the internal carotid artery just above the branching (bifurcation) of the external carotid artery. The carotid sinus contains baroreceptors that monitor and maintain arterial blood pressure by way of complex neurologic pathways. External pressure can cause drops in pulse rate (bradycardia) and blood pressure. The bradycardia may be profound and lead to stopping the heart beat (asystole) and death. Carotid sinus massage has been used therapeutically to control some rapid heart rhythms. See Figure 5-35: Carotid Sinus and Surrounding Anatomy.

The carotid body is a neurologic structure next to the carotid bifurcation and monitors changes in blood oxygen, carbon dioxide, and pH and makes physiologic adjustments in respiratory and cardiovascular function. Pressure on the carotid body (inevitable if there is pressure applied to the carotid sinus) may contribute to bradycardia.

Forensic pathologists have referred to Cardioinhibitory reflex cardiac arrest (CiRCA) following neck trauma as a mechanism of death.[75] It is physiologically possible for CiRCA to be a cause of death in strangulation, but it is difficult to prove because the mechanism leaves little or no direct evidence and becomes a diagnosis of exclusion (all other causes have been considered and have been excluded, leaving only CiRCA as the explanation). *Note*: Continuous, sustained (but minimal) pressure on one carotid sinus (bilateral pressure not required) for at least four minutes would be necessary to sustain bradycardia, and (unknown) individual characteristics would be needed to reach and sustain asystole. See Figure 5-36: Unilateral Compression of the Carotid Sinus.

Anscombe and Knight[76] had such a case where the only findings were "evidence of gripping the neck" (faint skin marks and three small hemorrhages around the larynx). They argued it was unlikely that irreversible hypoxic brain damage in their patient could have been caused by carotid artery or airway occlusion because:

- Maintaining the necessary continuous pressure for four minutes was "almost unattainable."
- The minimal damage found was not consistent with the force to manually close arteries or the airway for four minutes.
- Such manual gripping should have caused congestive petechiae and there were none (they acknowledged that complete artery closure would have prevented petechiae). *Note*: They do not explicitly exclude venous occlusion death, but without petechiae, such a death would be highly unlikely.

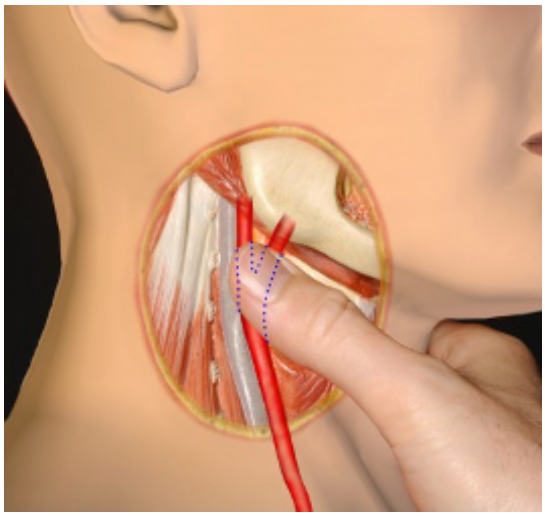

Figure 5-36. Unilateral Compression of the Carotid Sinus. Source: Forensic Medicine for Medical Students <*http://www.forensicmed.co.uk/pathology/pressure-to-the-neck/*> (accessed Aug. 31, 2020).

They concluded their patient most likely was the victim of CiRCA.

Schrag and colleagues[75] critically reviewed the 48 published cases (1881–2009) where CiRCA was a possible cause of death and used specific criteria to sort them into "highly probable" (no alternative explanation possible), "probable" (alternative explanation possible) and "unlikely" (alternative explanation highly probable). They found only one case where no alternative explanation was possible. They concluded that death by CiRCA alone was rare and suggested that CiRCA may be a contributor to death (19 cases) in the presence of drugs and/or cardiac pathology.

CiRCA must remain a possible etiology of immediate death in strangulation, but proving it conclusively is extremely unlikely. CiRCA is a diagnosis of exclusion requiring a thorough evaluation of all the investigatory, clinical, and post-mortem facts to eliminate all other possibilities.

IX. Causes of Delayed Death and Serious Neurologic Disability After Strangulation

Delayed death (mortality) and serious complications (morbidity) following strangulation are not common, but there is no comprehensive data. Any delayed adverse event is a very significant clinical concern because it always raises the question of whether the bad outcome could have been mitigated or prevented. Medical decisionmaking is discussed later.

Most of the serious medical problems that surface after strangulation involve the airway, the arteries, and the brain. The forces and damage that can acutely compromise the airway have already been discussed. It is uncommon, but airway compromise can develop slowly and insidiously.

Kuriloff and Pincus[21] presented the case of a 45-year-old man assaulted with a "choke hold" for 45 seconds who reportedly had no symptoms for 36 hours and then began having neck swelling, difficulty breathing, and an altered voice. He went to the hospital and evaluation revealed the swelling

inside his neck nearly closed his airway. He was taken into surgery and eventually recovered with a normal voice and function. Stanley and Hanson[22] report a similar case of a 69-year-old man strangled during a robbery who had no symptoms for 24 hours and then began developing voice change and difficulty breathing. Surgery saved his life. Di Paolo[19] published a case of an 80-year-old male who was strangled by his wife and went to the emergency department four hours later complaining of a sore throat and speech impediment. He was alert and stable with mild redness and swelling of the neck, a bruise on the roof of his mouth (palate) and a bruise on his tongue. Three hours later, while still being evaluated, he developed severe shortness of breath and died. An autopsy revealed a huge hematoma that compressed his airway. See Figure 5-37: Causes of Delayed Death and Serious Neurologic Disability After Strangulation.

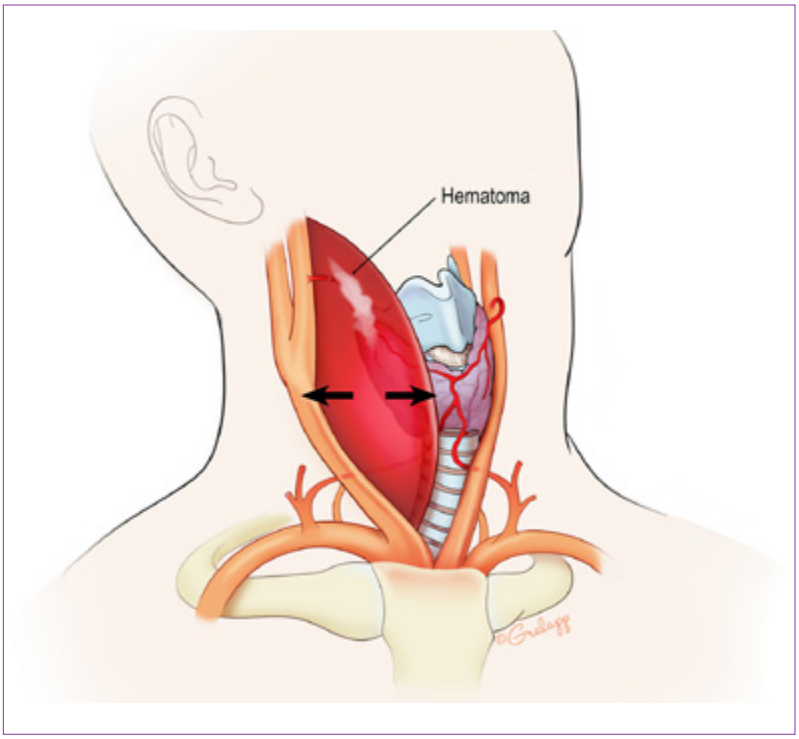

Figure 5-37. Causes of Delayed Death and Serious Neurologic Disability After Strangulation. Progressive bleeding and/or swelling in or around the airway may block and compress the air passages and lead to delayed death (minutes to hours). With permission from Chris Gralapp <*https://www.chrisgralapp.com*> (accessed Aug. 31, 2020).

Insidious bleeding may cause blood loss that can be fatal. Dayapala[77] reported the case of a three-year-old girl strangled by her mother and taken to the hospital where she was alert and stable with left neck swelling and subcutaneous emphysema. A CT scan showed the air in the tissues and a small hematoma next to the second cervical vertebra (C2). She was observed in the hospital for a week; the abnormal air resolved; and she was sent home with the father. She did well for two days. On the third day, she began coughing and started bleeding from her nose and mouth. Despite aggressive hospital care, the bleeding could not be stopped, and she died. Autopsy revealed the initial small hematoma in her neck was from a tear in the carotid artery that later ruptured into her throat just above the larynx causing her to bleed to death.

A. Arterial Trauma Following Strangulation

Probably the most vexing clinical challenge following strangulation involves trauma to the arteries in the neck. The compression of carotid arteries and consequences of impaired blood flow and oxygenation to the brain have already been discussed. Most of the time, the compression does not structurally damage the arteries and blood flow returns normally after release. In a small percentage of strangled patients (e.g., 1–2 percent), the strangulation mechanism injures arteries. One of the specific mechanisms of vulnerability has been discussed. Direct anterior-to-

posterior pressure on the carotid artery may trap it (or them, if bilateral) between the force and the transverse process of the adjacent vertebra. This requires minimal force and may only take a few seconds of this focal pressure to damage the underlying artery. Arteries are at risk from other types of force that may result from strangulation, especially stretching and twisting. Stretching and twisting mechanisms have been found to be a very significant risk factor for arterial injury in non-assaultive blunt trauma patients admitted to trauma centers.[78,79] It is likely that these mechanisms play a more significant role in strangulation than is currently known. The risk of these non-compressive arterial injuries may be particularly significant with any of the "choke hold" type maneuvers that not only compress both carotid arteries but may also twist and stretch the arteries. See Figure 5-38: Evolution of an Arterial Injury.

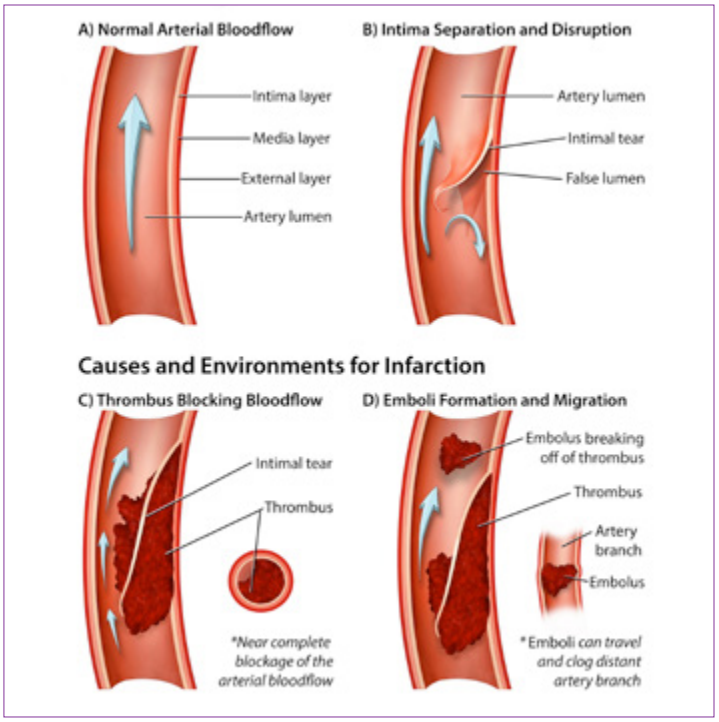

Figure 5-38. Evolution of an Arterial Injury. The sequence of possible events after blunt force injury to an artery. First, an intimal tear occurs in the arterial lining allowing blood to flow into the arterial wall through the false lumen. The body's response to this injury is to begin forming a blood clot (thrombus) at the sight of the tear. The thrombus can grow and reduce or stop blood flow to the artery. Part of the thrombus can break off to become an embolus that will travel in the bloodstream until it stops as the artery branches and gets smaller. Obstructed blood flow from either mechanism creates a stroke. With permission from David Nahabedian.

After compression, twisting, or stretching, the initial injury to the artery is likely to be a disruption of the lining (intima) of the artery to form an intimal tear or flap. This flap creates a potential false passage for blood flow (false lumen) and is appropriately perceived by the body as an injury. Unfortunately, the body's response to this injury is to form a blood clot, or thrombus, at the site of the intimal injury. Several scenarios (singly or in combination) may follow. The thrombus can continue to grow and may enlarge to the point that it fills the entire blood flow space (lumen) and stops all blood flow (and oxygen) to that part of the brain nourished by that artery, killing brain cells and creating a watershed or ischemic stroke. Even if the thrombus does not grow to occlude the entire lumen, part of it may break off to become a free-floating clot (embolus) that is carried "downstream" in the arterial flow. As arteries flow away from the heart they divide into ever smaller branches. Eventually, the embolus will come to a branch point that is too small to allow passage and the embolus stops, completely obstructing blood flow past that point resulting in downstream brain cell death and an embolic stroke. A third possible consequence relates to the false lumen, which because of the intimal tear, is now weaker than the uninjured arterial wall. The pressure of the turbulent blood flow in and around the flap may have enough force to allow blood to flow in between the layers of the artery (dissection) and blood may become trapped in the arterial wall to become a hematoma. The hematoma may

be large enough to close off the lumen or it may protrude into the lumen and create turbulent flow that can result in a thrombus (or later, embolus) with the same stroke outcomes as just discussed. Another possibility with a dissection is that it may "balloon out" into the weaker outer layers of the arterial wall to form a pocket (false aneurysm or pseudoaneurysm). This creates an unstable situation where the abnormal pouch can continue to grow and press on adjacent structures. The blood flow in the wall may break back into the lumen or rupture through the remaining arterial wall allowing arterial blood to uncontrollably escape. This was the cause of death in the three-year-old reported by Dayapala.[77] See Figure 5-39: Arterial Hematoma and False Aneurysm Formation.

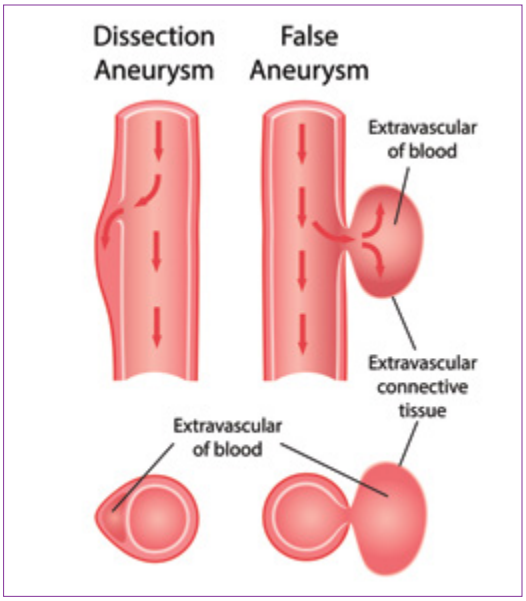

Figure 5-39. Arterial Hematoma and False Aneurysm Formation.

This is the pathophysiology of how traumatic arterial damage may progress to stroke or uncontrolled bleeding and is reasonably straight forward. The clinical reality of how to evaluate and care for the strangled patient who may harbor these evolving disasters is far from straightforward for several reasons. First, this condition is very infrequent (1–2 percent),[42,47] so unless clinicians have been recently trained on strangulation and are aware of recent literature, they may not even realize the risk or think the risk is so remote that evaluation is not indicated.

Second, this cascade of dangerous events is overwhelmingly asymptomatic at the onset, and the majority of patients have no obvious neurologic manifestations at presentation.[78] Early symptoms of dissection may include unusual headaches located in the temple region, behind the eye, or involving only one half of the head. More generalized pain may be noted in the neck or face, but these are less specific. Physical exam may be equally unremarkable as related to vascular damage. There may be focal carotid artery tenderness (uncommon, but when present, is a worrisome sign; but this provocative finding is not routinely known or performed).

In some cases, if the flap is large, there may be a carotid artery bruit that is detected with a stethoscope placed over the artery and what is heard is the "swishing" sound of blood flow turbulence caused by the flap disrupting normal flow. Again, only the astute and well-trained clinician is likely to use this diagnostic technique. About 5 percent of dissections may include a partial Horner's Syndrome (neurologic dysfunction of the sympathetic nerve plexus next to the injured carotid artery) with small pupil (miosis) and eyelid droop (ptosis) on the side of the injury.

Third, the time course between injury, symptom development, and neurologic compromise is unpredictable and may be minutes, hours, days, weeks, or even years.[80] A latent or "silent period" between the time of injury and the appearance of clinical manifestations is typically seen.[78] Multiple studies have found that 25–50 percent of patients developed symptoms more than 12 hours after the injury.[78,81,82,83] In one study of 45 patients with arterial injury, 24 percent

stroked within two hours and for the remainder, the average time to stroke was 75 hours.[83] In a recent multicenter study of blunt cerebrovascular injury, the median time to stroke was 48 hours.[84] Biousse[85] studied 42 patients with internal carotid dissection and found the interval between first symptoms and stroke ranged from minutes to 31 days with 82 percent of strokes occurring in the first week. Martin[86] reported a patient who developed a stroke five months after a carotid dissection. Chokyu[80] reviewed 24 patients with carotid dissection from various mechanisms and found the time from injury to stroke varied from 2 hours to 10 years; 29 percent were between three to seven months.

Clarot[87] presented the case of a previously healthy 38-year-old male who was found unconscious while he was apparently making breakfast. Hospital evaluation was consistent with a stroke. The following day, bruising on his neck appeared consistent with strangulation and an ultrasound showed bilateral carotid thromboses and dissection. He never regained consciousness and died four days later. The interval between the strangulation and "breakfast" discovery is unknown. Autopsy found hemorrhages around the larynx and hemorrhages within neck muscles, all consistent with strangulation. Examination of the carotid arteries found huge, bilateral thromboses. The brain showed damage consistent with widespread anoxic injury; all recent, but at different time frames showing the damaging arterial process was not a single event but one that continued to evolve. See Figure 5-40: Thrombus and Carotid Arteries.

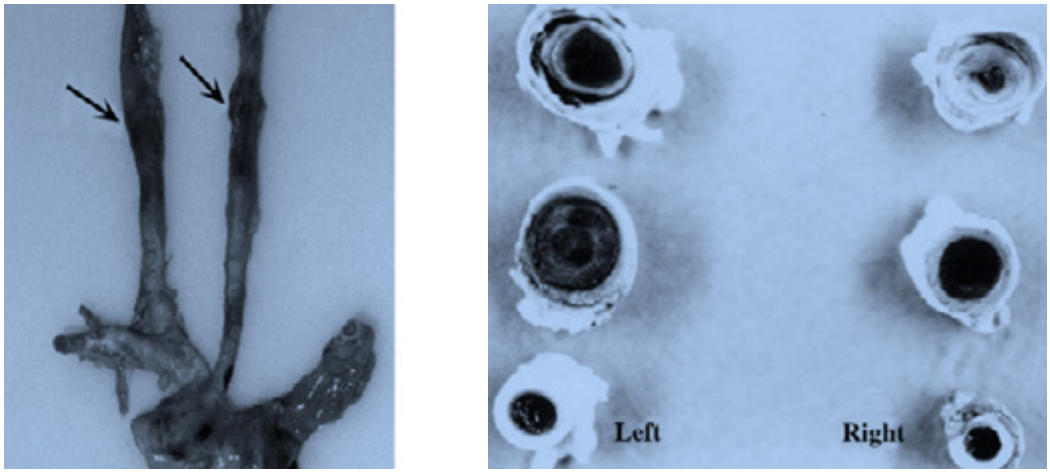

Figure 5-40. Thrombus and Carotid Arteries. (Left) Shows large thrombus in common carotid arteries. (Right) Shows sections of both carotid arteries occluded by thrombus at multiple levels. Source: Clarot F, Vaz E, Papin F, Proust B. Fatal and non-fatal bilateral delayed carotid artery dissection after manual strangulation. Forensic Sci Int. 2005;149 (2-3):143-150. doi:10.1016/j.forsciint.2004.06.009.

The fourth challenge to addressing the issue of vascular damage and neurologic compromise following strangulation is a lack of comprehensive scientific and forensic research. There are many published reports of individual cases or small case series (like Clarot above) describing the end point disasters.[80,87,88,89,90,91,92,93,94,95,96,97,98] There is also a collection of case reports involving vascular injury in martial arts practitioners after various neck holds or choke holds.[11,13,17,99,100,101,102,103,104,105] As discussed earlier, the law enforcement community has historically used a variety of neck restraining maneuvers to subdue unruly arrestees. The use of these techniques has been widely eliminated or restricted to the category of "deadly force"

because the risk of vascular damage, stroke, and death to both arrestees and to officers during training.[9] These cases reinforce the specific vascular damage risk of "choke holds." The large number of case reports (both published and unpublished local anecdotal reports of vascular damage in strangulation victims) clearly raises red flags regarding the potential for serious vascular injury with neck compression. Until very recently, there have been no larger studies to help quantify the risks and begin the complex task of structuring evidence-based clinical guidelines for optimum patient evaluation and care.[42,47] These studies will be discussed later.

B. Anoxic Brain Damage Without Airway or Arterial Injury

Thus far, the discussion regarding delayed death and neurologic disability after strangulation has focused on the traumatic injury and damage that blocks the airway or blood flow to the brain and deprives the brain of oxygen and kills brain cells. Airway and vascular tissue in the neck does not have to be structurally injured for brain cells to die. As discussed earlier, sustained compression and closure alone can irreversibly destroy brain cells. Neto[106] presented a case of a 36-year-old male who was manually strangled (credible history and multiple findings consistent with strangulation) who presented with a watershed infarct stroke (neurologic impairment in a specific vascular distribution) but with no radiologic evidence of vascular damage or occlusion. One carotid artery was most likely squeezed closed long enough to kill the brain cells downstream but not injure the artery. Prosser and colleagues[107] reported two cases of unilateral anoxic brain injury (found on CT and confirmed by MRI/MRA) following suspected child abuse (4-year-old male and 12-month-old male) and concluded the most likely etiology in both was unilateral carotid artery occlusion sufficiently prolonged to create watershed brain cell death.

If enough brain cells die, the patient dies. If fewer brain cells die, the patient survives, but with highly variable compromise of neurologic functioning. The loss of neurologic function from a dead brain is essentially permanent since neurologic tissue does not heal or regenerate.

Anoxia affects different parts of the brain at different rates.[108] Functional impairment of brain cells deprived of oxygen begins within seconds.[109] Most oxygen-deprived brain cells will be irretrievable by four minutes and all will be dead by 8–10 minutes.[109,110] Individual differences in the blood supply to the brain, and possibly variations in brain size, may contribute to variable clinical manifestations and survival rates.[108] The clinical spectrum of dysfunction is huge, ranging from a permanent vegetative state to memory impairment.[111] Brain dysfunction following anoxia is broadly categorized as hypoxic-ischemic brain injury (HIBI).[112] Since the hippocampus plays a key role in memory and is also exquisitely sensitive to oxygen deprivation, it is no surprise that memory problems are very common in cerebral anoxia survivors.[108] A variety of neuropsychological deficits have been reported after an anoxic episode including problems with motor functioning, visual defects, and visuospatial integration.[108,110]

Cerebral anoxia may also result in dysexecutive syndrome, which is a complex failure of executive functioning.[108] Problems may involve behavior and emotions with impact on affective regulation, insight, social skills, judgment, and impulse control. Dysexecutive syndrome may also include cognitive impairment effecting the patient's ability to process thoughts. Manifestations include difficulty with planning, reasoning, attention span, tracking conversation, problem solving,

and critical thinking. *Note*: Many of these neuropsychological issues may be both delayed in presentation after the anoxic event and difficult to clinically assess. Comprehensive data on the number of post-strangulation patients suffering from these issues and the severity of the deficits is lacking.

Also highly variable is the onset and course of severe post-anoxic dysfunction. Severe neurologic reactions may be delayed for days or weeks after the anoxic exposure.[113,114,115,116] Many of the patients described in these case reports were initially neurologically compromised by the anoxic event and recovered to essentially normal functioning which lasted days to weeks. They then deteriorated neurologically, and many died. Some survived with persistent dysfunction.[117,118] This has been described as delayed post-anoxic encephalopathy syndrome.[116]

X. The Role of DNA Evidence in Strangulation Cases

DNA (deoxyribonucleic acid) is the complex molecule that carries the genetic codes for all organisms and is unique to each individual. Locard's exchange principle is a cornerstone of forensic science:

"Every contact leaves a trace."

Every action an individual takes leaves behind a remnant or trace. Today, that trace is DNA. DNA has revolutionized forensic science because it allows biologic material transferred from the perpetrator to the victim, perpetrator to the crime scene, or victim to the perpetrator to be recovered and analyzed. That analysis has the potential to identify, with certainty, the individual who left the DNA behind. Not only can DNA prove identity, but it can also confirm contact between individuals.

Forensically useful DNA may come from blood, sperm cells, saliva, or skin. The DNA of interest in strangulation cases is mainly from the assailant's skin or touch or epithelial DNA. Touch DNA may come from DNA fragments on the top layers of the skin or from sweat and oils on the skin's surface; these samples have no cell nuclei. Touch DNA may also come from deeper layer skin cells that do have nuclei. Typically, only minute amounts of DNA are left behind after an object or surface is touched. Developing a successful profile (identity certain) depends on threshold amounts being recovered.

An important aspect of touch DNA technology is shedder status of the donor. All humans normally shed an average of 400,000 skin cells per day. Individuals vary in their propensity to shed ("good shedders" and "bad shedders") with significant variation between individuals but also with the same individual over time. Hand washing can eliminate skin cells. Multiple variables influence the amount of touch DNA left after any given contact. Donor shedder status at the time of the contact and whether the donor was sweating at contact (perspiration increases DNA transfer) are important. The nature of the contact and surface also plays a role. Pressure, friction, and longer duration of contact all increase transfer. Rough, solid surfaces promote transfer better than smooth, porous surfaces.

Situational factors affect the potential utility of touch DNA. Obviously, there must be a sufficient amount of epithelial DNA recovered to produce a complete individual profile. Known prior contact (before the event in question) between the donor and the object (or victim) may render the proof of contact moot. For example, in a domestic violence strangulation case, if the assailant and victim cohabitate and assailant DNA is found on the victim's neck, the argument will be that the DNA was the result of casual, not assaultive, contact. Touch DNA recovery offers no information about the interval

between deposition and collection and sheds no light on the controversy of consensual versus non-consensual contact.

The most productive application of touch DNA in strangulation is if the assailant is unknown and you can swab the victim's neck to recover a full profile that can be searched in a database (e.g., CODIS). If the assailant is known, swabbing the victim's neck may be useful in some situations (caveat above). If the suspect is in custody, swabbing the suspect's fingers/hand for victim DNA may prove contact.

There has been some limited experimental work done to look at some of the variables and issues regarding touch DNA and strangulation.[36,119,120] Some interesting results include:

- One minute of vigorous "mock" strangulation of the upper arm yielded positive profiles in up to 83 percent of "strangulations."[36]
- A "mock offender" vigorously rubbed a "victim's" neck with two fingers for one minute.[120]
  - 7/29 neck swabs positive (standard DNA technique) up to six hours.
  - 17/17 neck swabs positive using low copy number (LCN) DNA technique up to 10 days.
  - Contamination on control swabs, including third-party DNA and secondary transfers were problematic.
- Baseline neck DNA recovery was frequent in cohabiting couples (no "strangulation").[119]
- Mock strangulation (two fingers; one minute) yielded 3/5 positive profiles.[119]

Currently, there is no standard protocol or recommendation for obtaining touch DNA in the context of strangulation from either crime labs or forensic examiners. Some individual crime labs and examiner teams are using their own criteria and tracking results. As of this writing, no results have been published.

XI. Medical Response to the Strangled Patient

As mentioned in the introduction, the seriousness and risks of strangulation have historically been unknown or minimized, not just in the medical community but also in the criminal justice system. Research and training are changing awareness and improving the response, but all involved are at different points on the learning curve. Knowledge gaps, myths, and inaccurate belief systems still riddle all disciplines involved in dealing with the strangled victim/patient.

A. First Response and Fundamental Knowledge

The medical response begins with the first person who interacts with the strangled patient. There are multiple possibilities: 911 operators, emergency medical providers (EMTs and paramedics), law enforcement first responders, primary care providers, emergency department triage nurses, forensic nurse examiners, and finally physicians. Obviously, this list represents a spectrum of medical knowledge, expertise, and experience. Basic awareness and knowledge for all includes:

- Strangulation is a potentially life-threatening event.
- A benign initial presentation (looks well, normal vital signs, minimal symptoms, absent or minimal visual injuries) *does not*:

  - Exclude a serious problem that is beginning to evolve.
  - Predict or guarantee a good outcome.
- All strangled patients need a thorough evaluation by a properly trained physician, preferably in an emergency department setting that includes all the resources that might be needed (e.g., resuscitative support, medical imaging, specialty consultation, surgical support, observation, or hospital admission).
  - Every patient should be counseled about the magnitude and uncertainty of the risks and *strongly* encouraged to get a proper evaluation *now*.
  - EMS personnel and nurses will have higher levels of medical expertise and may have to stabilize the patient and/or facilitate triage to a higher level of care, but cannot, and should not, be expected to "medically clear" the patient prior to physician evaluation.
- Documentation of the patient's history, findings, and condition is important both medically and forensically. Some level of documentation is needed at each step of the patient's journey from initial presentation to final disposition.
  - The level of detail recorded will depend on the patient's medical condition and the training and responsibility of the specific discipline involved.
  - Documentation is always facilitated by a discipline-specific checklist or template.
  - Arguably, the most comprehensive documentation will come from forensic examiners who have specific training and forensic photographic skills.
  - Recording the patient's voice (for later comparison) is automatic for 911 operators and should be routine for law enforcement with a digital recorder.

B. Anticipated Conflict and the Priority of Patient Safety

Because of knowledge variability and the lack of consensus regarding the optimum medical evaluation of the strangled patient, conflicts are inevitable. Currently, up-to-date training about the medical details and risks of strangulation is probably more uniform, in depth, and widespread in the criminal justice community than it is in the medical system, especially amongst physicians. It is not uncommon for a well-trained law enforcement officer or forensic nurse to engage in a debate with the emergency physician about how much attention and evaluation the strangled patient requires. The same problem may occur up the medical administrative chain regarding authorization (i.e., payment) for medical procedures, especially imaging studies. These are always uncomfortable confrontations without an easy fix. Education, joint training, and rational dialog will eventually prevail. An essential component of the solution (reliable, evidence-based scientific data) will likely be requested by the resistant party. The kind of comprehensive research needed to guide best-practice medical decisionmaking in strangulation has been lacking and is just starting to emerge.

The argument now (and always) is patient safety. The risks to the strangled patient are serious and well-documented, albeit infrequent. Medical science may not be able to precisely quantitate the risk or have the data to define the optimum medical evaluation for every specific strangled patient. The fundamental pitfall is that medical science cannot reliably predict which strangled

patient is at risk for deterioration and which is not. Until better data is available, the only prudent course of action is an abundance of caution. Clinically, this translates into doing more for each strangled patient and accepting (and for the patient's benefit, embracing) a high percentage of negative imaging studies and inconsequential observations. Eventually, we will have the validated data to confidently know which patient needs what and who can be safely sent home with less; but we are not there yet.

C. Medical Approach to the Strangled Patient

The emergency department encounter starts with a general assessment of the patient's status and vital signs. The first priorities are airway, breathing, circulation (ABCs), and stabilization if needed. The expectation is that every patient (strangled or not) will receive a thorough general history and physical exam, appropriate laboratory testing and imaging, an assessment of the problem(s), and a plan to address the identified problem(s). The strangled patient requires additional specific attention and documentation.

D. Strangulation History

The strangulation history must be thorough and address assault details, mechanism(s) of injury, and symptoms (onset, severity, and evolution). A checklist or template ensures completeness and adequate detail. Extra space should be provided for further information or clarification. The focus of the medical strangulation history is to assess risk and guide the physical exam and testing (e.g., imaging). (See Attachment 5-1: Sample Strangulation History and Exam.) The law enforcement history will gather more information about the current event, past events, the assailant, the victim-assailant relationship, victim and assailant behavior, and the victim's feelings.

E. Physical Examination and Special Focus

The standard of care in emergency medicine requires that every patient have a thorough and detailed physical exam commensurate to the problem(s) at hand. Strangulation, a potentially life-threatening event, requires a comprehensive exam. The general physical exam may be documented on a facility-specific form or template or may follow the standard narrative format for a dictated physical exam. The unique nature and characteristics of strangulation require special a exam focus of the following areas:

- a careful search for petechiae on the scalp, face, neck, ears and ear canals, nasal passages, oral cavity, and eyes (eyelids, sclera, both the bulbar and palpebral conjunctiva);
- voice (and potential recording of);
- swallowing;
- airway structures and carotid arteries for tenderness;
- breathing and lungs;
- mental status;
- detailed neurologic exam;

- upper torso for signs of injury; and
- hands, arms, and torso for defensive wounds.

Documentation beyond the standard descriptions (both positives and pertinent negatives [documentation of what is not abnormal]) will be necessary. In the strangled patient, palpation and visible findings require detailed documentation best accomplished on specific regional diagrams with checklists and space for additional information or clarification. Any visible findings should also be documented photographically using standard forensic technique and documentation. (See Attachment 5-1: Sample Strangulation History and Exam.)

F. Direct Fiber Optic Laryngoscopy

Depending on the details of the assault, patient symptoms, and exam findings, it may be necessary to visualize the interior portions of the lower throat (hypopharynx) and larynx, including the vocal cords. This can be accomplished at bedside using direct fiber optic laryngoscopy. The laryngoscope consists of a tube containing optical fibers that is threaded down the patient's nose (after local anesthesia), through the back of the throat to just above the vocal cords. High-resolution optics and an LCD screen (some have a digital camera attached) allow the examiner to directly view (and photograph) the interior structures of the larynx. This procedure is typically performed by an otolaryngologist (ENT specialist) but some emergency physicians are also trained in the technique. The procedure itself is relatively easy to do and well tolerated by the patient. The challenge is having the training and experience to identify and interpret the subtle and nuanced findings that indicate damage or abnormality. See Figure 5-41: Flexible Fiberoptic Laryngoscopy.

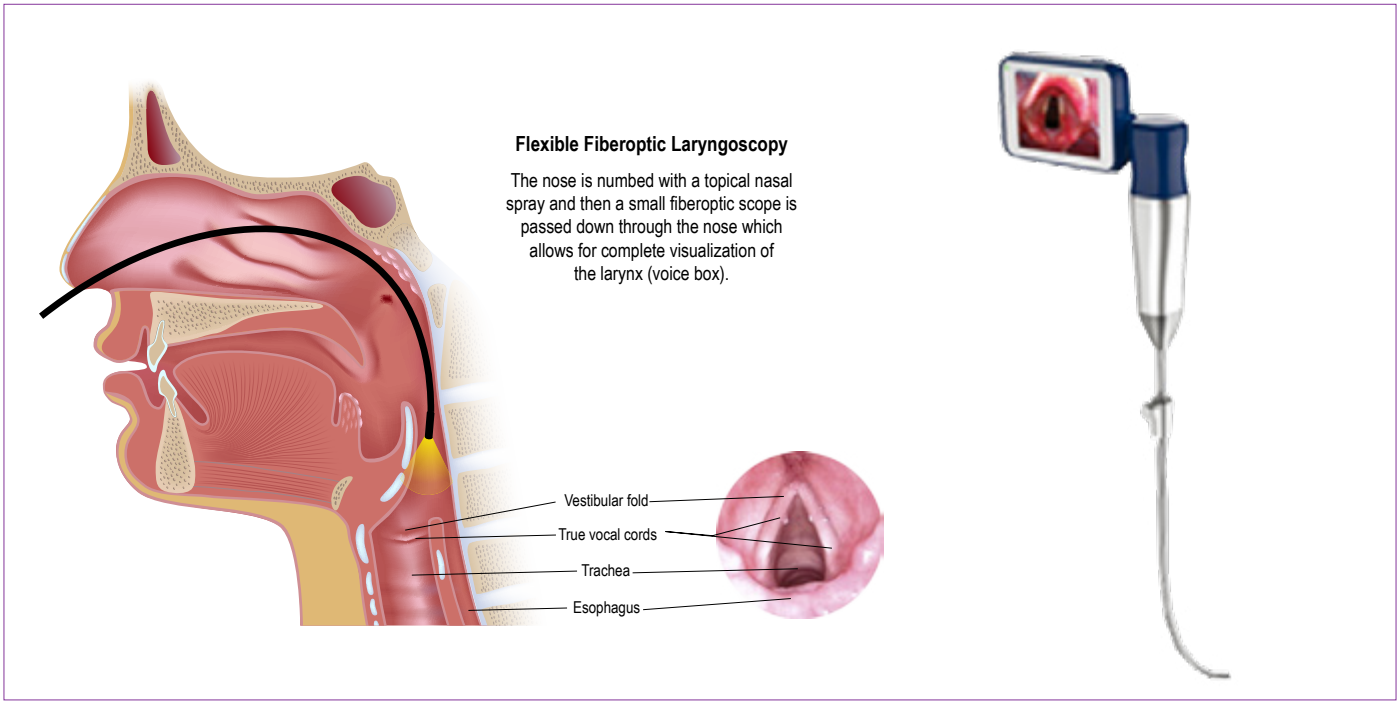

Figure 5-41: Flexible Fiberoptic Laryngoscopy.

The typical indications for performing direct laryngoscopy include:

- potential or impending airway compromise;
- known laryngeal trauma (seen on imaging) or laryngeal tenderness;
- altered voice or difficulty speaking;
- painful or difficulty swallowing; and
- difficulty breathing.

G. Imaging in Strangulation

The next branch in the medical decision tree is imaging. There are many options depending on the logistics of availability, specific features of the case and physician variables (preference, training, and experience). In the context of strangulation, the two most common imaging modalities are basic (non-enhanced) magnetic resonance imaging (MRI) and computed tomographic angiography (CTA). *Note*: Doppler ultrasound is readily available and has been used in the evaluation of arterial injury but is not recommended because it is less sensitive and less specific than other modalities.[79,121]

1. Magnetic Resonance Imaging (MRI)

MRI scanning has been studied in the evaluation of non-fatal strangulation in several European forensic centers with relatively small numbers of patients.[122,123,124,125,126,127] Most of the focus of these studies has revolved around the forensic question of determining whether a particular strangulation event constituted a "threat to life" for that patient. There is no consensus among these centers as to the exact criteria required to make this determination. All the MRIs in these patients were done after medical evaluation and were only used in the forensic assessment and not used for medical decisionmaking. The authors generally agreed that MRI could identify internal trauma not revealed or suspected on the physical exam. They also noted that the MRI could provide objective corroboration for significant neck compression and life-threatening strangulation events. They also acknowledged that MRI in the clinical context could potentially aid in medical decisionmaking.

There were some observations and correlations between the MRI findings and the patient's symptoms and findings (from the patient's medical record). Traumatic findings under the skin (subcutaneous) were found with MRI when there were no overlying visible findings. Subcutaneous findings were often larger on MRI than the overlying visible finding. Deep structure hemorrhage (bleeding in neck muscles, lymph nodes, salivary glands, and around other deep neck structures) were frequently found and often correlated with pain and/or tenderness documented in the medical record. Because these MRIs were done after medical evaluation, they were able to document MRI findings days after the assault. Most of the positive MRI findings were present at three days post-assault and some were seen up to 12 days.

Given some variation in the criteria, there was general agreement that MRI findings indicating a threat to life included:

- hemorrhage close to a "critical neck structure" (airway or major blood vessel);
- hemorrhage or congestion of lymph nodes;
- subcutaneous hemorrhage;
- intramuscular hemorrhage (bleeding inside a neck muscle);
- submandibular gland hemorrhage (bleeding in the gland under the tongue that makes saliva);
- swelling/bleeding in the platysma muscle (thin, wide "curtain-like" superficial muscle covering much of the front of the neck).

The availability of MRI scanning on a 24/7 emergency basis varies widely and is especially limited in smaller communities and rural areas. This country does not provide the same forensic MRI access that is common in Europe. In general, using an MRI in the medical evaluation of a non-fatal strangulation patient in the United States would be a secondary study done for specific clinical indications. As a result, there is little published American data and limited physician experience using MRI in the primary medical evaluation of strangulation.

The European studies and experience supports the *forensic* utility of MRI in strangulation. Prosecutors are often frustrated with poor medical documentation and lack of visible injury (or minor injury) when trying to convince the jury that the victim experienced a life-threatening event. The MRI data from Europe clearly and objectively shows that an MRI can reveal a multitude of unseen, internal damage that, in and of itself, may not be life-threatening, but convincingly demonstrates that significant compressive force was applied to the neck and could have killed the patient if slightly more vigorous or prolonged.

The criminal justice system, especially prosecutors, could argue that every strangled patient needs an MRI of the neck to document the potential severity of the event, thereby promoting offender accountability, justice, and public safety. This issue is a classic example of a friction point between medicine and the criminal justice system regarding the evaluation of a strangled patient. When confronted with the prosecution's argument above, the physician might respond that the MRI is not medically indicated in the care of that particular patient, since other patients with *emergent* medical needs should not be delayed in getting an MRI, and, if an MRI were done for non-medical purposes, who will pay for it? Medical insurance will surely deny payment. Both sides have excellent arguments. Unless and until the United States embraces (and pays for with public funds) a more European concept of comprehensive forensic care, there will not be many MRIs performed on strangled patients without very clear medical indication.

2. Computed Tomographic Angiography (CTA)

The pathophysiology and some of the clinical issues regarding the evaluation of potential arterial damage following strangulation have already been discussed. In addition to

MRI, the other radiologic study likely to be considered for the strangled patient is the computed tomographic angiogram (CTA). There are a number of procedures that may be employed to diagnose arterial injury, but today there is good consensus that a CTA (using modern multidetector scanners) offers the best combination of accessibility, speed, safety, specificity, and sensitivity.[78,115,128,129,130]

Most of the clinical information available about arterial injury in the neck from blunt force (excludes penetrating trauma from stab wounds and gunshots) comes from the discipline of trauma surgery. This class of injury is referred to as a blunt cerebrovascular injury (BCVI) and focuses on the carotid and vertebral arteries. The causes of injury in these patients are primarily motor vehicle crashes and falls. Many of these patients are multiple trauma victims and have fractures and other serious injuries to the brain (57 percent), spine (44 percent), chest (43 percent), and face (34 percent).[78] Blunt injury mechanisms to arteries in these patients are primarily from twisting and stretching, and secondarily from the artery being pressed against underlying bone.[78,79] This comports perfectly with strangulation mechanisms, although there are very few strangulation cases in the datasets of BCVI multiple trauma patients admitted to trauma centers.

The risks of undiagnosed BCVI are significant with 5–40 percent mortality and 40–80 percent significant neurologic morbidity.[131] BCVIs were first widely recognized over 30 years ago, but the majority presented with symptoms of neurologic ischemia and dysfunction.[79] Although the initial focus of BCVIs management was recognizing the injury and treating the devastating neurologic sequelae, subsequent efforts have been directed at diagnosing and treating these injuries during the "silent period," before the onset of stroke.[79] When trauma centers first began looking at their BCVI data, overall rates were around 0.5 percent of their trauma admissions.[81,132] As more attention and larger datasets developed, the rate rose to about 1 percent of all trauma center admissions.[81,131,133,134,135] Because BCVI is a low frequency, but high morbidity and mortality condition, significant research efforts have focused on screening for earlier detection and treatment to prevent stroke in this group of trauma patients. As discussed earlier, CTA emerged as the screening tool of choice. The criteria for obtaining a CTA also changed and grew, but in this group of patients, the indications primarily revolved around mechanisms and injuries in very serious and multiple trauma scenarios. Because of earlier detection and effective treatment with antithrombotic therapy in BCVI trauma patients, mortality has declined, as have stroke rates and neurologic morbidity.[79,83,132,133,136,137,138]

Neck compression mechanisms were seldom mentioned in trauma center screening algorithms and those patients were rare in the trauma admissions datasets. Biffl[81] included "Near hanging resulting in anoxic brain damage" as the only neck compression indication for screening. Miller[139] was slightly broader with "Neck soft tissue injury (e.g., seat belt injury or hanging"). Berne[128] included "hanging victims." Finally, in 2015, the Department of Surgical Education, Orlando Regional Medical Center, published their guidelines for "Blunt Cerebrovascular Injuries" and included "A history of strangulation or near hanging" as a Level 2 recommendation for screening for BCVI.

Note: Support for a Level 2 recommendation is: "Reasonably justifiable based on available scientific evidence and strongly supported by expert opinion. Usually supported by Class II data or a preponderance of Class III evidence." [Classes of evidence refers to the quality of published scientific research.] Access the full report here: *https://surgicalcriticalcare.net/Guidelines/Blunt%20cerebrovascular%20injuries%202015.pdf*.

In October 2016, the National Medical Advisory Committee of the Training Institute on Strangulation Prevention released their *Recommendations for the Medical/Radiographic Evaluation of Acute Adult, Non-Fatal Strangulation*. (See Attachment 2-1, page 42.)

The primary goal of these recommendations was to raise awareness regarding the appropriate evaluation of the strangled patient. The main target audience was emergency physicians, but any professional who dealt with a strangled victim would benefit from the knowledge. This was not intended to be a comprehensive practice management policy for detailed medical decisionmaking addressing the myriad of variables and challenges these patients present. It was really designed to provide basic medical knowledge about common symptoms and signs of strangulation and offer radiographic options for evaluation with the goal of excluding serious and life-threatening sequelae of strangulation. These recommendations were distributed nationally and internationally to numerous hospitals and medical organizations. The hope of the Institute was to improve the care of strangled patients generally and to increase the radiologic screening for traumatic arterial injury and thus prevent adverse neurologic outcomes.

The impact of these recommendations is starting to emerge in the medical literature with studies looking specifically at groups of strangled patients and analyzing how they were evaluated and what was found. These efforts have begun the task of bringing scientific evidence to the challenge of defining the optimum diagnostic evaluation and management after non-fatal strangulation.

Matusz and colleagues[42] performed a retrospective analysis of 349 alert adult patients who experienced strangulation (328) or near hanging (21). Imaging decisions were at the discretion of the provider and not driven by protocol. Fifty-seven percent of the manually strangled patients received advanced imaging, most commonly CTA (44 percent). Two of the manually strangled patients (0.6 percent) had cervical artery dissections and were treated with aspirin without neurologic sequelae. There were too few injuries to perform statistical analysis on the associations between injuries and clinical findings. Their discussion includes this conclusion:

> This high rate of advanced imaging combined with a low rate of important injuries suggests that a more selective approach to imaging may be feasible and safe.

They also noted:

> The expected course of untreated blunt cervical artery dissection is not well defined, but some patients experience significant morbidity and mortality.

Zuberi and colleagues[47] retrospectively reviewed 142 patients who presented with strangulation injury (84 percent manual, 10 percent ligature, 6 percent near hanging) and all underwent CTA examination. Initial radiologic reports (by general radiologists) found six vascular injuries (4.2 percent). Further radiologic review by board certified neuroradiologists found 4/6 initial positives were in fact false positives and one initially negative study was determined to be a true positive for a final rate of vascular injury to be 3/142, or 2.1 percent, with a false negative rate of 0.7 percent. They analyzed symptoms and physical findings with vascular injuries but found no useful predictive values. They concluded:

> Performing CTA of the neck after acute strangulation injury rarely identifies clinically significant findings, with vascular injuries proving exceedingly rare. As positive vascular injury could not be clinically predicted by history and physical examination, prospective validation of a clinical prediction rule in this population is warranted.
>
> Our findings suggest that broad low clinical threshold CTA neck exams to look for BCVIs in strangulation victims are of limited diagnostic yield and, perhaps, the clinical threshold for CTA neck imaging in these patients should be increased.

Both groups appropriately acknowledge the low rate of vascular injury and the need for large, prospective research studies to establish and validate clinical prediction rules based on mechanism, history and physical exam findings that could safely eliminate radiologic studies for some strangled patients.

These are the first two published studies reporting experience evaluating strangled patients in the context of the "Recommendations" offered by the Training Institute on Strangulation Prevention. Until these two studies were published, the argument supporting widespread screening of strangled patients for vascular injury was promulgated by expert opinion that was based on mechanism of injury, pathophysiology of vascular damage and a long list of disastrous case reports related to various strangulation mechanisms (as presented earlier). Many knowledgeable strangulation experts anticipated that, when adequately studied, the rate of vascular injury in strangulation would probably be only 1–2 percent. The first published data is consistent with that anticipation.

The rate of vascular injury in the Matusz study was 0.6 percent, but only 44 percent of their patients were screened with CTA. Zuberi reported a 2.1 percent cerebrovascular injury rate in strangled patients. Their observations about low yields are accurate. Their recommendation for large, prospective studies to establish and validate clinical prediction rules that could scientifically determine which patients need imaging and safely eliminate imaging from others is a worthy goal. The authors caution about the financial costs of unnecessary imaging studies. Such costs must be compared with the costs (both medicolegal and medical care) for the consequences of a missed, preventable stroke in a young victim. The authors also warn about the risk of unnecessary radiation with a CTA

of the neck in a 29-year-old carrying a 1 in 1,200 risk of causing cancer. Again, compare that with the risk of a missed stroke in that 29-year-old. Since the essential clinical-decision data is not yet available, the fundamental question is what to do in the interim? Is 2.1 percent (one in 47 patients) really "exceedingly rare?" Are they suggesting we withhold imaging from some patients when we have no reliable method for determining who is at risk and who is not?

3. Foundation for Medical Decisionmaking Regarding Imaging

At this point, summarizing the known information may be helpful.

- Any strangulation event can potentially be lethal or result in serious disability.
- The likelihood of a disastrous outcome following strangulation is small.
- Currently, there is no reliable method for predicting the exact level of risk for any individual or any strangulation event.
- The mechanisms of arterial damage are reliably defined by decades of experience and research with patients admitted to trauma centers.
- Those vascular damage mechanisms are direct compression, twisting, and stretching of arteries in the neck.
- Those mechanisms studied in trauma patients are identical to the mechanisms generated by strangulation.
- After arterial damage occurs, there is often an asymptomatic "latent" or "silent" period that provides an opportunity for screening, diagnosing, and treating the injury before stroke.
- Once vascular injury occurs, not all patients experience stroke, but some will. Medical science cannot predict the level of risk.
- A sensitive and specific screening tool (CTA) is readily available, is non-invasive, and has been well validated.
- The downsides to CTA—cost and radiation risk—are mitigated by the preventative benefits of early detection of injury and prevention of stroke.
- Treatment for most vascular injuries created by strangulation, before neurologic compromise, is easy and non-invasive (oral medication), relatively safe, well-tolerated, and very effective in preventing stroke.

Until those well-validated, clinical-decision rules are available, logic dictates that "abundance of caution" should prevail and strangled patients should be aggressively screened for possible vascular injury.

H. Treatment of the Strangled Patient

Treatment decisions will obviously be tailored to the details of each individual strangulation evaluation. Any structural damage or injury will likely require specialty consultation (e.g., otolaryngology, vascular surgery, neurology, neurosurgery, trauma surgery, pulmonology).

The role of observation has evolved as better information regarding risk time frames have come to light. The general approach to risks should be a thorough initial evaluation to exclude serious potential problems, Historically, an observation period of 12–24 hours was recommended for most strangled patients. That still may be appropriate for some patients after adequate work-up has excluded immediate threats but revealed relatively minor issues that need to be watched during consideration of further evaluation. Examples include detoxification if alcohol or drugs are involved, clearing of mild alterations of mental status, monitoring of mild airway or pulmonary issues, or psychiatric or social service consultation. Discharge planning will always include specific, written instruction about danger signs and when to return immediately. Follow-up will be directed by specific medical issues and will likely include criminal justice and victim support resources.

As discussed above, the vascular injury screening threshold and validated clinical decision rules remain important unresolved issues. Clinicians will face the challenge of identifying the "zero risk" patient (with a negative history, negative exam and perhaps a negative observation period, or no observation) who can be safely sent home without imaging. These patients will probably be few and far between, but the minimum criteria will include:

- no loss of consciousness or altered mental status;
- no petechiae;
- no neck soft-tissue injury or tenderness;
- no visual changes;
- no breathing or swallowing difficulties;
- no neurologic complaints/findings;
- no drug and/or alcohol intoxication;
- stable during observation period ("safe" timeframe); and
- reliable home monitoring.

XII. Answering the Basic Forensic Questions in a Strangulation Case

Following the medical/forensic examination of the strangled patient, the criminal justice system will anticipate answers to the forensic questions posed in the introduction. Part of that anticipation is the expectation that the forensic examiner will be able to testify in court, using evidence-based answers to the questions, to help the jury understand what happened to the victim and the magnitude of the risks involved in the incident.

A. Did Strangulation Occur?

The subjective information will come from what the victim said to professionals involved in the response (e.g., the 911 dispatcher, law enforcement, emergency response personnel, the hospital

nurses, the emergency physician, the forensic examiner). The more consistent the documentation from each interview, statement, or history, the more credible and powerful the impact. The symptoms reported to medical providers offer consistency with the history of strangulation. Some symptoms are more supportive of strangulation than others that are less specific. The thoroughness and accuracy of medical documentation also affects impact.

ANSWERING THE FUNDAMENTAL QUESTIONS	
SYMPTOMS SUPPORTING STRANGULATION	**SYMPTOMS THAT MAY BE CONSISTENT WITH STRANGULATION**
❑ Neck pain or sore throat	❑ Nausea and/or vomiting
❑ Breathing changes or difficulties	❑ Coughing
❑ Voice changes or inability to speak	❑ Headache
❑ Swallowing difficulties or pain	❑ Changes in hearing (ringing or silence)
❑ Altered mental status or loss of consciousness	❑ Feeling of generalized weakness or profound fatigue
❑ Incontinence	❑ Fear of death
❑ Vision changes	
❑ Focal neurologic weakness	

The most persuasive information supporting a recent strangulation event will be objective medical data. Traumatic physical exam findings (via written description and forensic photos) directly related to the documented mechanism(s) of injury are powerful. If visible findings are absent or minor, the examiner must be prepared explain the statistics related to lack of findings and the medical dangers of overreliance on visible findings to confirm strangulation. Probably the most compelling data to substantiate strangulation are injuries found on direct laryngoscopy and/or medical imaging.

B. Who Was the Assailant?

In the context of sexual assault, about 80 percent of victims know their assailant. In domestic violence, virtually all of the assailants are known. In the event of an unknown assailant, the identity issue falls on the law enforcement investigation and crime scene evidence. In strangulation, the victim's body is technically part of the "crime scene" and DNA recovered from the victim (especially the neck) may provide a full profile. Hopefully, submission of that profile to the DNA database(s) will match an individual. Collecting, drying, labeling, and packaging of DNA swabs must be done according to strict local protocol.

C. Was the Neck Compression Brief or Prolonged?

Forensic science has provided some reliable benchmarks based on physical findings:

- If geographic petechiae (above the level of constriction) are present, enough sustained, uninterrupted, bilateral compression of the neck occurred for at least 20–30 seconds in order to occlude all four jugular veins.

- If loss of consciousness occurred during the neck compression, then bilateral, simultaneous pressure occluded both carotid arteries for at least 7–10 seconds.
- If the victim was incontinent of urine during neck compression, then bilateral, simultaneous pressure occluded both carotids for at least 15 seconds. *Note*: Given this mechanism and length, the victim would have been unconscious and unresponsive for at least five seconds before urine was lost.
- If the victim was incontinent of stool during neck compression, both carotids were simultaneously compressed without interruption for at least 30 seconds. The victim would have been obviously unconscious for at least 20 seconds before stool was released.

D. Was This a Life-Threatening Event?

This is usually the most important question for the criminal justice system and the jury. The victim has survived a strangulation assault. The fundamental issues are:

- Was there a mechanism of injury present that could create a lethal outcome?
- Were there symptoms or findings present that confirm the patient was on the path to death?

There are two basic lines of inquiry. First is the presence of geographic petechiae. Petechiae confirm that bilateral, simultaneous occlusion pressure was present for at least 20–30 seconds. This is the requisite mechanism for the path to stagnant hypoxia and, if sustained, to death.

The next avenue is more complicated with wider possibilities. The final common pathway is asphyxia of the brain. Sustained asphyxia will lead to death. There are two mechanisms that lead from normal to cerebral hypoxia to fatal asphyxia. First is impairment of arterial blood flow to the brain. Without adequate arterial blood flow, there will be inadequate oxygen for normal brain cell activity and cells will begin to malfunction.

Manifestations of brain cell malfunction include:

- altered mental status (light-headedness, dizziness, confusion, hallucinatory phenomena);
- loss of consciousness;
- incontinence (bladder or bowel); and
- visual loss or disturbance.

These findings, individually or in combination, indicate the path toward death has begun. If the arterial blood flow interruption continues, death will follow.

The second mechanism to brain asphyxia is airway compromise that interrupts arterial oxygenation. Impaired oxygenation will eventually lead to the final common pathway of brain asphyxia with same findings just described. But before that point, airway compromise has unique symptoms that indicate the mechanism is in place:

- inability to breathe;
- inability to speak;
- hoarseness or change in voice; and
- shortness of breath or difficulty breathing.

If airway compromise is sustained, oxygenation will fail, brain asphyxia will progress, and death will ensue.

There are fundamentally only two kinds of strangulation victims: dead ones and near misses. The line between survival and death rests on the degree of force applied and the duration of that force.

ABOUT THE AUTHOR

Dr. William M. Green *has been on the faculty of the University of California, Davis Medical School since 1976; he retired as Clinical Professor of Emergency Medicine in July 2011. He has been board-certified in both Family Practice and Emergency Medicine. Dr. Green's work in the field of sexual assault has included participation in creating sexual assault forensic examination protocols for both California and the United States. In 1989, Dr. Green was one of the founders of the Sexual Assault Forensic Evaluation (SAFE) Team at the University of California, Davis Medical Center and served as the team's Medical Director from 1989 until 2010. His publications include, Rape: The Evidential Examination and Management of the Adult Female Victim, published by Lexington Books (1988). In the mid 1990s, Dr. Green worked with the core advisory group that helped draft the legislation that ultimately created the California Clinical Forensic Medical Training Center (CCFMTC) where he is the Medical Director. Dr. Green was one of the founding faculty members of the Graduate Group in Forensic Sciences that created the Forensic Science Master's Program at UC Davis. In 2007, Dr. Green founded and co-chaired the Forensic Medicine Section in the American College of Emergency Physicians (ACEP). His research interests include the epidemiology and forensics of sexual assault and the evaluation and management of strangulation. Most recently, Dr. Green was asked to serve as advisor to the U.S. Department of Justice and the White House on sexual assault matters.*

Dr. Green's experience with strangulation victims includes over 35 years of work in emergency departments evaluating and managing all types of compressive neck injuries as well as caring for sexual assault victims who were strangled as part of the crime. In 2010, Dr. Green became one of the founding members of the Medical Advisory Team for the Training Institute for Strangulation Prevention. This national organization addresses policy issues and develops training regarding strangulation for both medical and criminal justice professionals.

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ATTACHMENT 5-1
Strangulation History and Exam

STRANGULATION HISTORY #1			
NATURE OF STRANGULATION			❒ Unknown
How many episodes of strangulation?			❒ Unknown
How long did the worst episode last?	____ seconds	____ minutes	❒ Unknown
During the strangulation, was the victim also:			
» Shaken?	❒ Yes	❒ No	❒ Unknown
» Straddled?	❒ Yes	❒ No	❒ Unknown
» Held against a wall or other object?	❒ Yes	❒ No	❒ Unknown
Was the victim's head pounded against a wall, floor, or other object?	❒ Yes	❒ No	❒ Unknown
Did the assailant intentionally cover the victim's			
» Mouth	❒ Yes	❒ No	❒ Unknown
» Nose	❒ Yes	❒ No	❒ Unknown
If yes, describe: _____			
METHOD OF STRANGULATION			❒ Unknown
Assailant position			❒ Unknown
» In front of the victim	❒ Yes	❒ No	❒ Unknown
» Behind the victim	❒ Yes	❒ No	❒ Unknown
» Sitting on the victim	❒ Yes	❒ No	❒ Unknown
Ligature	❒ None		❒ Unknown
» Rope	❒ Yes	❒ No	❒ Unknown
» Wire	❒ Yes	❒ No	❒ Unknown
» Cord	❒ Yes	❒ No	❒ Unknown
» Clothing	❒ Yes	❒ No	❒ Unknown
» Other: _____			
One hand	❒ Yes	❒ No	❒ Unknown
» Left	❒ Yes	❒ No	❒ Unknown
» Right	❒ Yes	❒ No	❒ Unknown
Both hands	❒ Yes	❒ No	❒ Unknown
Chokehold	❒ Yes	❒ No	❒ Unknown
If yes, describe: _____			
Pressure from other body part	❒ Yes	❒ No	❒ Unknown
» Forearm	❒ Yes	❒ No	❒ Unknown
» Knee, leg, or foot	❒ Yes	❒ No	❒ Unknown
» Other: _____			
Was the victim's neck stretched or twisted?	❒ Yes	❒ No	❒ Unknown
If yes, describe: _____			

STRANGULATION HISTORY #2

SYMPTOM	None	Onset During Strangulation	Onset After Strangulation	Now Resolved	Present Unchanged	Present Getting Better	Present Getting Worse*	Unknown
Neck Pain	❒	❒	❒	❒	❒	❒	❒	❒
Sore Throat	❒	❒	❒	❒	❒	❒	❒	❒
Breathing Changes	❒							
» Unable to breathe	❒	❒	❒	❒	❒	❒	❒	❒
» Painful breathing	❒	❒	❒	❒	❒	❒	❒	❒
» Short of breath	❒	❒	❒	❒	❒	❒	❒	❒
» Hyperventilation	❒	❒	❒	❒	❒	❒	❒	❒
Voice Changes	❒							
» Raspy voice	❒	❒	❒	❒	❒	❒	❒	❒
» Hoarse voice	❒	❒	❒	❒	❒	❒	❒	❒
» Coughing	❒	❒	❒	❒	❒	❒	❒	❒
» Unable to speak	❒	❒	❒	❒	❒	❒	❒	❒
Swallowing Changes	❒							
» Difficulty swallowing	❒	❒	❒	❒	❒	❒	❒	❒
» Painful swallowing	❒	❒	❒	❒	❒	❒	❒	❒
Nausea	❒	❒	❒	❒	❒	❒	❒	❒
Vomiting	❒	❒	❒	❒	❒	❒	❒	❒
Neurologic Changes	❒							
» Vision changes or difficulty	❒	❒	❒	❒	❒	❒	❒	❒
» Ringing in ears	❒	❒	❒	❒	❒	❒	❒	❒
» Facial or eyelid droop	❒	❒	❒	❒	❒	❒	❒	❒
» One-sided body weakness	❒	❒	❒	❒	❒	❒	❒	❒
» Headache	❒	❒	❒	❒	❒	❒	❒	❒
» Loss of bowel control	❒	❒	❒	❒	❒	❒	❒	❒
» Loss of urine control	❒	❒	❒	❒	❒	❒	❒	❒
Mental Status Changes	❒							
» Dizzy/lightheaded	❒	❒	❒	❒	❒	❒	❒	❒
» Confusion	❒	❒	❒	❒	❒	❒	❒	❒
» Hallucinations	❒	❒	❒	❒	❒	❒	❒	❒
» Loss or memory	❒	❒	❒	❒	❒	❒	❒	❒
» Loss of consciousness	❒	❒	❒	❒	❒	❒	❒	❒
Behavioral Changes	❒							
» Restlessness	❒	❒	❒	❒	❒	❒	❒	❒
» Agitation	❒	❒	❒	❒	❒	❒	❒	❒
» Combativeness	❒	❒	❒	❒	❒	❒	❒	❒
» Fear of death	❒	❒	❒	❒	❒	❒	❒	❒

Other Symptoms

Explain _____

_____

_____

_____

* Needs immediate medical evaluation

STRANGULATION EXAM #1: CURRENT FINDINGS

Date _____ **Time** _____

VS	**T** _____	**P** _____	**R** _____	**BP** _____	**SAT** _____

Eyes

❒ Perrla ❒ Abnormal _____

❒ EOMi ❒ Abnormal _____

VA OD ____/____ OS ____/____

Voice

❒ Normal ❒ Abnormal _____

Airway

❒ Normal ❒ Tender ❒ Crepitance ❒ Other _____

Carotid Arteries

❒ Normal ❒ Tender R L ❒ Bruit R L ❒ None

Swallowing

❒ Normal ❒ Abnormal _____

Lungs

❒ Normal ❒ Abnormal _____

Mental Status

❒ Normal ❒ Abnormal _____

CN 2-12

❒ Normal ❒ Abnormal _____

Motor

❒ Normal ❒ Abnormal _____

Sensation

❒ Normal ❒ Abnormal _____

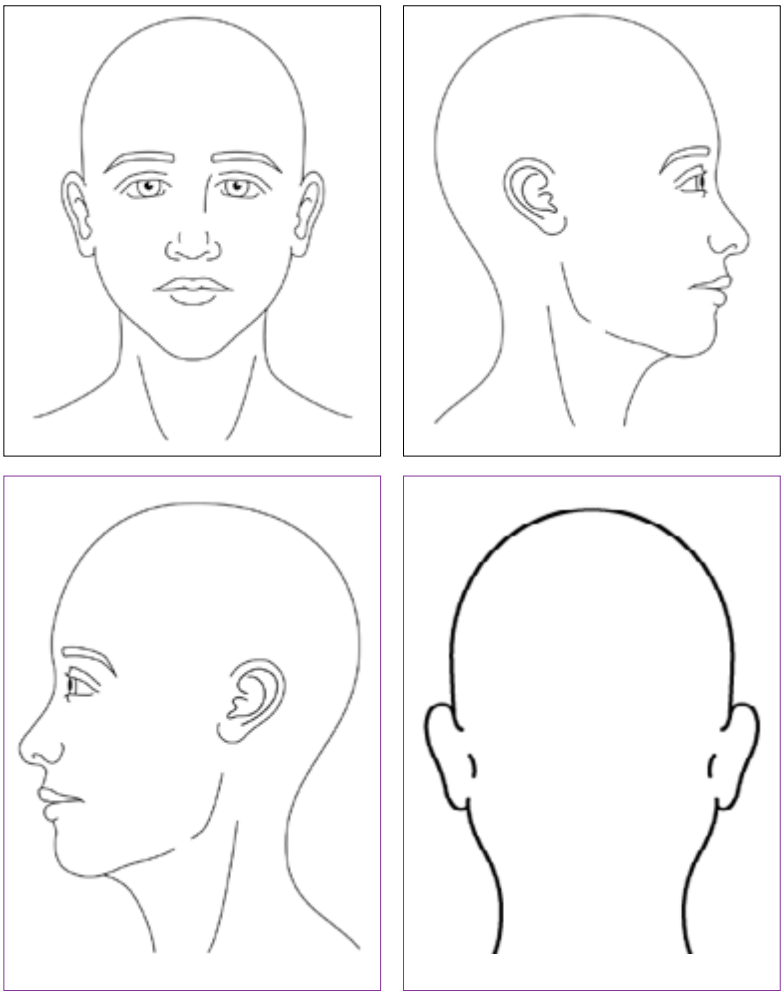
Cerebellar/Gait

❒ Normal ❒ Abnormal _____

Reflexes

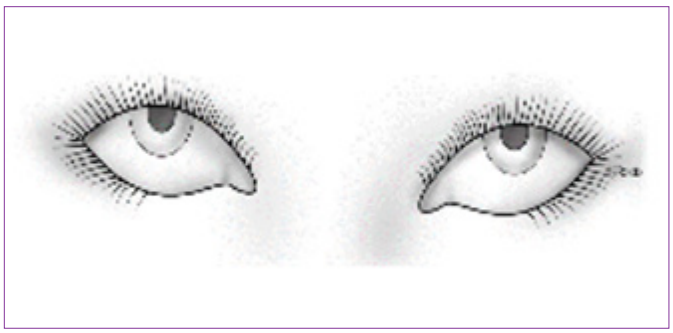
❒ Normal ❒ Abnormal _____

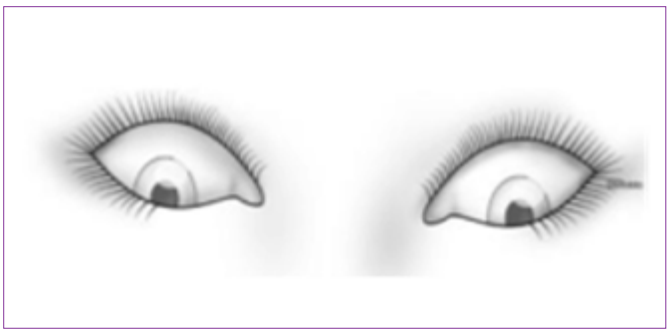
STRANGULATION EXAM #2

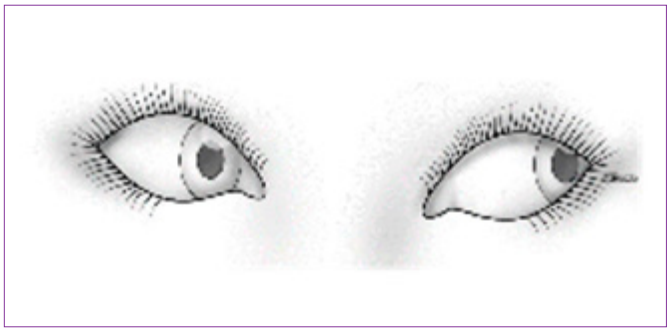


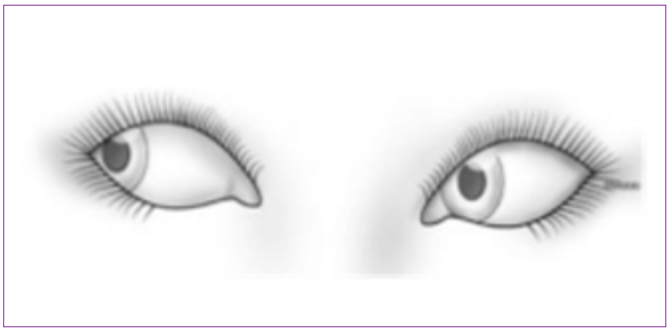
HEAD AND SCALP	FACE	EARS
❒ No Findings ❒ Redness (ER) ❒ Bruise (EC) ❒ Abrasion/Scratch (AB) ❒ Laceration (LA) ❒ Swelling (SW) ❒ Petechiae (PE) ❒ Tenderness (TE) ❒ Alopecia ❒ Other Finding _____ _____ _____	❒ No Findings ❒ Redness (ER) ❒ Bruise (EC) ❒ Abrasion/Scratch (AB) ❒ Laceration (LA) ❒ Swelling (SW) ❒ Petechiae (PE) ❒ Tenderness (TE) ❒ Facial Droop ❒ Eyelid Droop ❒ Other Finding _____ _____ _____	❒ No Findings ❒ Blood in Ear Canal ❒ R ❒ L ❒ TM Performation ❒ R ❒ L ❒ Hemotympanum ❒ R ❒ L ❒ External Petechiae (PE) ❒ R ❒ L ❒ Canal Petechiae (PE) ❒ R ❒ L ❒ Other Finding _____ _____ _____

STRANGULATION EXAM #3







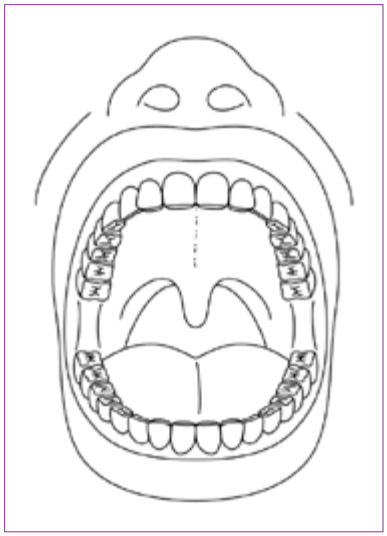


EYES

- ❒ Petechiae (PE)
- ❒ Subconjunctival hematoma (SCH)
- ❒ Other Finding _____

_____

_____



NOSE AND NARES

- ❒ No Findings
- ❒ Active Bleeding
- ❒ Dried Blood
- ❒ Bruise (EC)
- ❒ Abrasion (AB)
- ❒ Laceration (LA)
- ❒ Swelling (SW)
- ❒ Acute Deformity
- ❒ Petechiae (PE)
- ❒ Tenderness
- ❒ Other Finding _____

_____

_____

MOUTH

- ❒ No Findings
- ❒ Redness (ER)
- ❒ Bruise (EC)
- ❒ Abrasion (AB)
- ❒ Laceration (LA)
- ❒ Swelling (SW)
- ❒ Petechiae (PE)
- ❒ Tenderness (TE)
- ❒ Other Finding _____

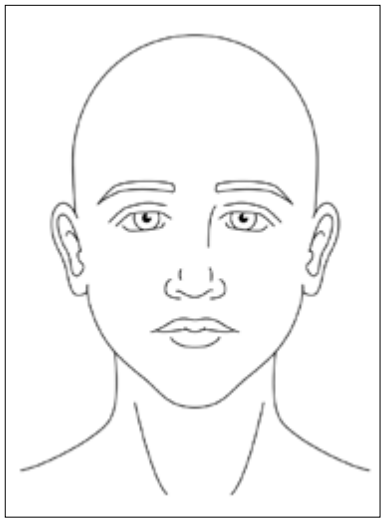
_____

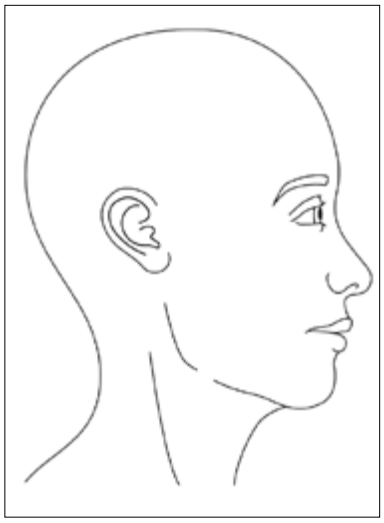
_____

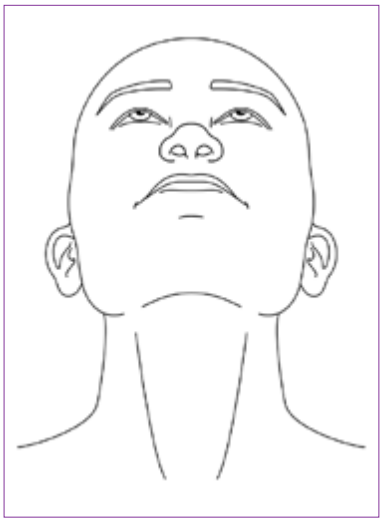
_____

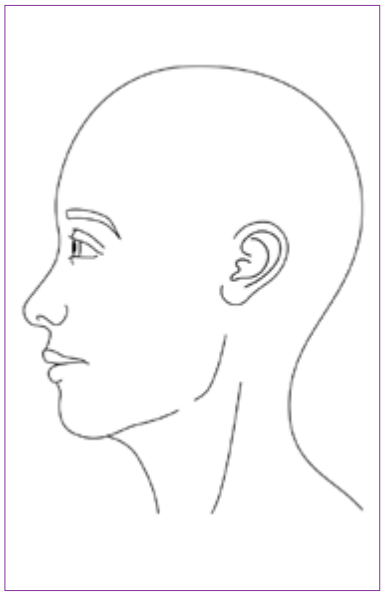
_____

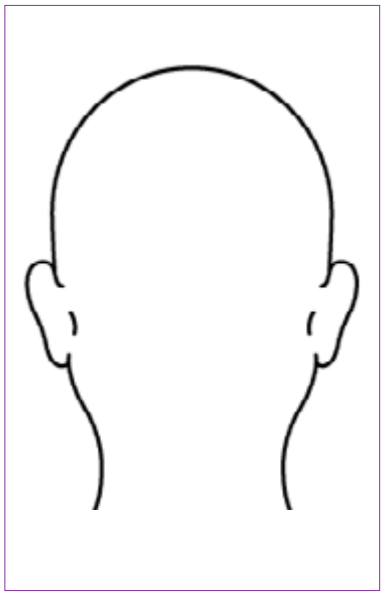
STRANGULATION EXAM #4









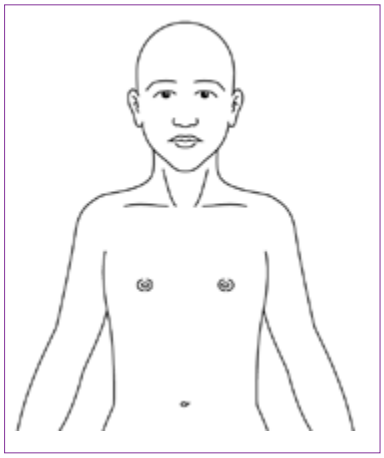


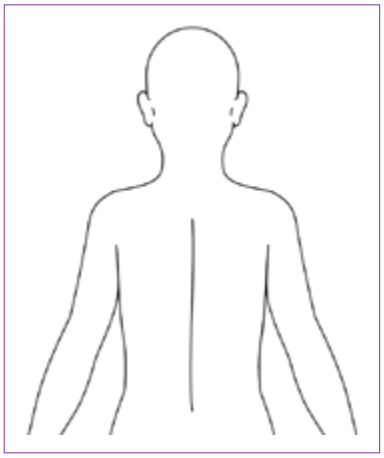
UNDER CHIN AND NECK

- ❒ No Findings
- ❒ Redness (ER)
- ❒ Bruise (EC)
- ❒ Abrasion/Scratch (AB)
- ❒ Laceration (LA)
- ❒ Swelling (SW)
- ❒ Petechiae (PE)
- ❒ Ligature Marks (LM)
- ❒ Arterial Tenderness (AT)
- ❒ Laryngeal or Trachael Tenderness (LT)
- ❒ Carotid Bruit (CB)
- ❒ Other Tenderness
- ❒ Other Finding _____

_____

_____





UPPER TORSO

- ❒ No Findings
- ❒ Redness (ER)
- ❒ Bruise (EC)
- ❒ Abrasion (AB)
- ❒ Laceration (LA)
- ❒ Swelling (SW)
- ❒ Petechiae (PE)
- ❒ Tenderness (TE)
- ❒ Other Finding _____

_____

_____

6

Death by Strangulation or Suffocation

Steven Campman, M.D.
Dean A. Hawley, M.D.

Editor's Note: Although CDAA always strives to be gender-neutral, strangulation is a very gendered crime. In an effort to not misrepresent this, victims in this manual are referred to as female, while the defendants are referred to as male unless otherwise noted.

I. Introduction

Strangulation and suffocation produce death by asphyxiation—loss of oxygen and cell death in body organs that are required to sustain life. Fatal strangulation and suffocation can occur without any external evidence of violence on the human body. In the absence of significant suspicion on the part of the death investigator, and in the presence of certain pre-conditions in the victim's history, strangulation and suffocation homicides can be missed. Declining budgets in the criminal justice system and increasing workloads for police and medical examiners have been blamed for the declining rate of autopsy examinations and a possible failure to detect homicide among at-risk victims. The first priority for getting evidence of a crime is to secure an autopsy, which requires a reasonable index of suspicion on the part of the death investigator. The association of strangulation and suffocation assaults with intimate partner violence should reflexively cause question whenever a victim of suspected intimate partner violence dies.

Once a medical determination has been made for strangulation or suffocation in a death investigation, and the police have made an arrest, the prosecutor then begins the process of determining who to enlist for testimony in a prosecution. Training in strangulation and suffocation injury is fairly uniform among board-certified forensic pathologists, but the experience of autopsy pathologists varies considerably in this specific area, and a governmental duty to provide adequate supervision of private contract or state-regulated autopsy is not always followed. Autopsies are not always conducted by board-certified forensic pathologists, and it is incumbent on the prosecutor to determine whether to seek a second opinion. If prosecutors decide to seek outside expertise to assist at trial, they must determine a mechanism to satisfy confrontation under *Crawford v. Washington*, *Melendez-Diaz v. Massachusetts*, *Bullcoming v. New Mexico*, and *Williams v. Illinois* to allow that expert to testify from records produced by another person.[1]

The purpose of this chapter is to familiarize prosecutors with evidence that is common in these cases and the autopsy procedures that routinely secure that evidence, so prosecutors can better assess the experience and potential limitations of witnesses in a trial. There is no intent herein to train pathologists in autopsy examination in strangulation and suffocation because the scope of that knowledge exceeds the limitations of this chapter. An ethical discussion of potential exculpatory evidence is offered within this chapter and in medical discussions of other chapters in this manual.

1. *Crawford v. Washington* (2004) 541 U.S. 36; *Melendez-Diaz v. Massachusetts* (2009) 557 U.S. 305; *Bullcoming v. New Mexico* (2011) 564 U.S. 647; and *Williams v. Illinois* (2012) 567 U.S. 50.

II. Definitions

The commonality for strangulation and suffocation is that each produces serious bodily injury and death by asphyxiation. Asphyxiation is dysfunction or cell death within vital organs by loss of oxygen delivery or utilization by those cells. Asphyxiation can occur from many different events, including but not limited to:

- drowning;
- suicidal hanging;
- accidental internment, such as when a construction worker is buried in a collapsed trench;
- during a coma from drug or alcohol sedation;
- when a person's head is confined in a plastic bag; and
- when an infant is overlain by someone while bedsharing.

Strangulation has been defined as pressure placed upon the neck, such that there is a reduction of blood flow through the brain or constriction of breathing through the airway in the throat, resulting in disruption of brain function by asphyxiation. Strangulation is a specific type of blunt force injury of the neck. Pressure by an object that does not penetrate the skin (a blunt object) is applied to the neck resulting in injury by asphyxiation. The pressure is sustained—not instant—in such a way that the combination of time interval, surface contact area, and quantity of force create a sustained obstruction of oxygen delivery. This distinguishes strangulation from other blunt force neck injuries, such as a punch or slap, where the momentary interval of contact is too brief to affect oxygen delivery to the brain.

Suffocation is defined as obstructing or restricting breathing by external mechanical forces. Suffocation does not require blunt force injury. It can occur by obstructing air from entering the air passages (smothering) or by keeping the lungs from expanding to take in air by external compression of the chest or abdomen (compression). Compressing the ribcage of the chest so that the chest cannot expand to take in air or compressing the abdomen so that the diaphragm is forced up to prevent breathing are both typical examples of suffocation by compression. Asphyxiation by compression of the chest or abdomen is commonly called mechanical or traumatic asphyxiation when an external force is applied to the body, or positional asphyxiation when the body is held in such a position that respiration is restricted.

Death due to homicidal strangulation or suffocation may be delayed by hours, days, or even months when there is interval medical care, such as life support or when there is gradual progression of an internal injury, such as internal bleeding or swelling that collapses the airway or complications of a cerebral infarct ("stroke") resulting from vascular injury in the neck. There can be homicidal assault where death follows an extended period of medical life support (even years after the injury), and the autopsy is long after the injury, affording time for healing. In these cases, the search for evidence of the cause of death must turn to the investigation, because the condition of the body or the delay in death has obscured the injury. Infections associated with chronic immobility like pneumonia, urinary tract infection, or infected decubitus ulcers ("bed sores") can be the immediate cause of death in such cases when someone has been debilitated by strangulation.

A. Ligature Strangulation

A ligature is a cord, wire, article of clothing, or otherwise flexible object that is wrapped around the circumference of the neck so that pressure applied to the free ends creates compression and constriction of the neck. Overall, ligature strangulation is not found in the preponderance of intimate partner strangulation cases, but the frequency of ligature use is probably increased in the homicide cases. Ligature strangulation may follow an act of manual strangulation in a sequence of escalating violence leading up to death. Skin injury is more frequent when a ligature is used as compared to manual strangulation, and the injury has a more regular, linear pattern than the injuries left by manual strangulation. It is possible to determine the direction of the applied force for a fatal ligature: Hanging typically shows a head-to-toe force vector against the skin and ligature strangulation typically shows a front-to-back or back-to-front force vector. A ligature with a broad surface contact area, such as a coiled bed sheet or soft bathrobe belt is expected to leave less skin injury than a ligature with a smaller surface contact area, such as an electrical extension cord. One confessed murderer made a public, self-incriminating statement claiming that he could inflict a ligature strangulation that would simulate the typical injury of suicide, thereby creating a defense against murder.[2]

B. Manual Strangulation

Manual strangulation is the most frequent pattern of strangulation assault in intimate partner violence cases. Manual strangulation includes the quintessential mental picture of two people standing, facing each other, where one person has hands around the other person's throat. While that may happen, it is not the usual mental image that should be conjured in intimate partner violence homicidal strangulation cases. For the most part, these assaults occur in the bedroom, on the bed, with the victim lying down and the assailant on top of the victim. Victims have also described being held up by their neck with their back against a wall. It can be with one hand from the front or from behind, two hands from the front or from behind, or often just by placing the forearm across the victim's neck while she is face up on the bed. The forearm can also be used from behind, reaching around the throat. Manual strangulation also includes stepping or kneeling on the victim's throat. In any one posture of victim and assailant, the pattern of defensive injuries that might be made by a struggling victim will depend on the accessible part of the victim's own body, the accessible or exposed parts of the assailant's body, and whether the assailant has employed some mechanism to chemically or physically restrain the victim prior to the assault. In either ligature or manual strangulation, the victim's own fingernails can cause injuries to her own neck as she attempts to remove the object or the attacker's hands from her neck.

C. Suffocation by Smothering

Suffocation by smothering is a very common concomitant injury in strangulation assault and may be the preponderant pattern of lethal force if the victim is significantly weak or frail

2. Charlie White, "Ind[iana] Suspect Confesses to Media in Rape, Murder of Teen" (Mar. 8, 2013) *Louisville Courier Journal* <*https://bit.ly/2TtsEMN*> (accessed Sep. 1, 2020).

compared with the assailant (e.g., infants or disabled elders). Placing a pillow over the mouth and nose with very little force is all that is required to smother an infant or a very ill, impaired, or intoxicated adult. In intimate partner assaults, suffocation may occur by obstructing the mouth and nose of the victim during an attempt to prevent her from screaming, waking the children, or alerting the neighbors. Smothering will happen if the face is covered with duct tape or is confined inside a plastic bag during the assault. Examining the inner surfaces of the lips could disclose injuries that support the diagnosis of smothering caused by the mouth being forcefully covered.

D. Suffocation by Compression

Alternatively, suffocation commonly occurs in intimate partner violence when the victim is on the bed or floor, and the assailant is sitting on the victim's body, compressing her chest or abdomen with or without simultaneous compression of the neck by strangulation.

III. Underlying Physiology of Fatal Asphyxiation Mechanisms

A. Jugular Vein Occlusion

The jugular veins return blood to the heart from the brain and the rest of the head. The blood within the jugular veins has had most of the usable oxygen and nutrients extracted during its circuit through the head. The jugular veins are under the skin of both the right and left sides of the neck. These veins connect together within the brain, such that blockage of one jugular vein still permits complete venous drainage of the brain and head through the one remaining opposite jugular. Occlusion (complete obstruction) of both jugular veins, if done with a strangulation force that is not so severe as to obstruct the carotid arteries in the neck, starts a process of venous engorgement in the head and brain, where the veins above the restriction in the neck will promptly start dilating to absorb the continuing influx of blood that cannot exit the neck back to the heart.

Over a period of time, the dilating veins rupture, causing bleeding under the skin into the brain and into the eyes in a pattern known as petechial hemorrhage or petechiae. The duration of time required for complete jugular obstruction while the carotids are open and the end result of petechiae is best estimated at 20–30 seconds. If one jugular is released prior to the necessary time, then the clock must start again, as the engorged veins have drained. Petechiae in the skin, under the scalp, and on the eyes heal in a few days, so observed petechiae are no more than a few days old. Petechiae in the brain are never completely healed, but they change in color and quality over time. The time interval may be crudely estimated from microscopic tissue sections of the petechiae. The requisite force need not be severe, as the jugulars can be compressed during medical manipulation of the neck without causing noticeable pain. Most suicide hangings are painless and involve an identical mechanism.

Asphyxiation within the brain develops because the incoming arterial blood flow eventually becomes restricted by the venous overfilling, and oxygen delivery to the brain is gradually impaired. Unconsciousness occurs after about two minutes, and the point of no return for

death occurs at about four minutes. These time intervals are only approximations, as the onset of unconsciousness and death may occur faster or be more protracted. Leading up to loss of consciousness, the victim, unless physically or chemically restrained, is medically able to fight back, and there is often, a very severe effort by the victim to escape.

B. Carotid Artery Occlusion

The carotid arteries come out of the arch of the aorta at the top of the heart. They carry nutrient-rich and oxygen-saturated blood through the neck up to the head and brain. Pressure within the carotids is significantly higher than in the jugular veins, and the heart pulsation is evident in the arteries. The carotids lie quite deep within the neck, shielded from the front and side by neck muscles and the edge of the cartilage of the larynx (voice box). More force is required to obstruct the carotid arteries than to obstruct the jugular veins. The physiology for carotid obstruction is significant for two independent factors that operate together in a strangulation, making carotid obstruction a dramatic and rapidly lethal event. First, the carotids are the main oxygen source for the brain, so cutting off carotid flow abruptly stops oxygen delivery. Second, the blood pressure within the carotid arteries is the physical force that allows oxygen within the blood to be pushed out through the wall of the vessel into the tissues of the brain. Absent that blood pressure, oxygen diffusion stops very abruptly, and the consequences for the brain are quite dire.

With carotid obstruction, unconsciousness has been reported to occur in as few as 10 seconds. Petechiae do not develop if the carotid arteries are fully obstructed. Therefore, the presence of petechiae caused by strangulation serves as proof that, at one point in life, the jugular veins were compressed while the carotids were, at least partially open. Once the carotids are closed off, there are no more petechiae. As with jugular vein compression, permanent brain damage can happen within two minutes. Death by carotid occlusion has happened with as little as 15–20 seconds of pressure when the stranglehold is done with sufficient force to crush the artery, causing thrombosis or carotid dissection, followed by cerebral infarction ("stroke"). The quantity of applied force required to compress the carotids is higher than with jugular compression, but the rapid onset of loss of consciousness with carotid compression may reduce the likelihood that the victim will be able to fight back. Fatal strangulation by carotid obstruction has happened with "the choking game," as well as inadvertently by law enforcement using the "carotid restraint" or the "lateral vascular neck restraint."

- Absence of External Injury: External skin injuries may or may not be present after a carotid compression. The presence of skin injury produced by the assailant depends on the surface area for application of the force, the texture of the surface against the skin (i.e., objects applying focal forces are more likely to leave a skin injury than are broad and soft objects), and the rapidity of loss of consciousness for the victim. The presence of defensive skin injuries on the victim's neck, produced by the victim clawing at a choke hold on the neck or injuries on the assailant from clawing at the assailant, may or may not be present and depend on circumstances that include body posture, the element of surprise, and even demeanor. In law enforcement demonstration exercises, the person subject to the restraint rarely fights back. In demonstrations of lateral vascular neck restraint when trained as deadly force for police agencies and the military, external injuries are seldom present. With fatal carotid

compression, internal injuries are likely in the muscles and perhaps within the vessels, but external injuries are often completely absent even in homicidal assaults.

- Repeated Applications of Stranglehold: In homicide cases, it may be observed that there are so many petechiae in the skin and under the scalp that the entire skin appears suffused with petechiae. Such a pattern implies that a jugular compression was applied more than once during life, where some petechiae developed with each successive assault until the whole skin is suffused.

C. Suffocation by Smothering

When the air passages into the mouth and nose are partially or completely obstructed, there will be a relative impediment to breathing. Depending on the severity of airway restriction, asphyxiation will begin. The airway obstruction will result in a struggle by the victim to breathe through the obstructed airway. Depending on factors that might co-occur, such as blunt force injuries to the head, bleeding injuries in other parts of the body, or respiratory depressant drugs or alcohol, the victim will struggle, attempting to use more and more force to take in air. The force is generated by the chest and abdominal wall muscles and diaphragm, producing a negative intra-thoracic pressure. If the chest pressure reaches the threshold pressure for central venous return of blood through the vena cave into the heart, then there will be a generalized, bodywide obstruction of venous return, which resembles jugular vein compression in a strangulation. At that point, there may be a shower of petechiae that develop from the obstructed veins throughout the body. It is easiest to recognize and document this in the thin skin at the top of the feet, the skin on the front abdominal wall, and within the linings of the liver capsule, lung pleura, and epicardium of the heart. These petechiae may also appear in the eyes and on the face.

Petechiae caused by suffocation are therefore generalized, while the petechiae of strangulation are isolated to the head above the line of strangulation force. The interval for loss of consciousness during a pure smothering assault depends on the extent to which the airway is obstructed. With total obstruction, that timing should look like drowning or jugular compression, where two minutes is typical. If the obstruction was not complete, and the victim was able to get in just a little air through a pillow, then the assault may take longer. Smothering has been determined to be associated with a very prompt (in seconds) change of human physiology even at the molecular level of DNA, where there is a rapid activation of a gene that is transcribed from DNA to RNA, and that RNA is then translated to a protein, where that final protein in the circulating blood causes the lungs to exude edema fluid. This protein may eventually be a useful forensic marker to prove suffocation assault.

D. Suffocation by Compression

Forcing the lungs to collapse by sitting on the chest or abdomen will result in compressional (or mechanical) asphyxia. The mechanism and distribution of petechiae is identical with a smothering, and the timing for loss of consciousness should be about the same. The importance of recognizing compressional suffocation is that it frequently happens simultaneously with a strangulation assault, and the petechiae that become generalized due to the compression can

confuse the observer who might not have considered compression suffocation in the matrix of possible injuries. There may be contusions under the skin of the chest or abdomen that fit a position for the assailant on top of the victim.

E. Assaults Involving More Than One Mechanism

The point of no return, where the strangled victim will not spontaneously start breathing again after an assault, varies considerably depending on the overall injuries. Commonly, the assailant misjudges the onset of death and discovers that the unconscious victim starts gasping for breath or actually arouses. This may precipitate another round of assault by a different mechanism, like using a ligature to tie off the neck. Using blunt force is also common. The process by which the assailant seeks to "make sure" that the victim is dead can result in injuries that a prosecutor might use in an argument for "overkill" as proof of specific intent to kill. It is not in the purview of the pathologist to make this determination as an opinion, but is an argument that the state may make later.

F. Suffocation by Drowning and Oxygen-Depleted Environments

There is more than one mechanism for death by drowning, but the preponderance of cases occur by asphyxiation. Unable to breathe, the submerged person becomes unconscious after an interval of about two minutes. If not removed from the water within a couple more minutes, the victim will arrive at the point of no return, where medical resuscitation becomes necessary, and then even that effort becomes useless. Cases of very prolonged submersion followed by survival are reported in news stories, but actual medically documented 20-minute survivals where one can absolutely prove absence of accessibility of an "air pocket" even with cold water drowning, are lacking.

The concept of very prolonged submersion is either a myth, or it is dependent on a trick of physiology such as weighted rapid descent, which offsets asphyxiation by using deep-water pressure to increase the diffusion of remaining oxygen out of the blood. There are many myths about autopsy findings in drowning cases. Best stated, drowning cannot be definitively and scientifically proven. Medical determination of drowning as a cause of death is made after a complete autopsy and is based upon the absence of immediate fatal injuries, such as a gunshot wound or a stab wound and the presence of a wet body in the context of known submersion. If a dead person is subsequently submerged in water, there will be water that flows into the lungs by simple gravity, so a finding of water in the lungs does not substantially prove death by drowning. Water in the lungs only means that the body has been wet. Findings reported such as the osmolality of heart blood, the presence of diatoms from the water, and water in the lungs, have not proved helpful as definitive proof of drowning. Medical evidence of homicidal drowning may be frustratingly non-specific.

Exposure to an atmosphere that is depleted of oxygen is another mechanism of suffocation. The process of forming rust from iron leads to a chemical binding of oxygen from the air. When a compartment aboard a ship, a structural steel container, or a sewer-access portal is made of iron, and the compartment is sealed, there can be a gradual chemical extraction of oxygen from the

air within that compartment. Dry ice evaporating in a closed space may produce enough carbon dioxide to cause asphyxiation. A human entering that compartment can be abruptly asphyxiated by lack of oxygen. Forensic pathologists use the term "hostile environment" to describe a room with extreme heat or cold, or a room with no oxygen. The deliberate placement of another person into a hostile environment is a premise in forensic pathology for which we can determine homicide as the manner of death, even though the victim has no wounds. Medical evidence of homicidal asphyxiation by "hostile environment" may be non-specific.

G. Special Considerations for Co-Occurring Medical Risks for Elders, Children, and Victims with Medical Conditions

Homicide by strangulation or suffocation sometimes occurs for victims who are not able to put up a violent defense. For the very old, very young, and adults who are impaired with severe physical limitations or disease, death by strangulation or suffocation can happen without significant evidence of assault. The typical defensive injuries of fingernail marks and internal contusions of the neck may be completely absent because the force required to cause strangulation or suffocation is very low. In these cases, forensic pathologists are highly dependent on the investigative information. It is a firm premise of forensic pathology to always consider the death-scene investigation and history in arriving at cause and manner of death. For a victim who also has significant coronary artery disease, chronic pulmonary disease, or a prior stroke, the forces necessary to cause death could be much less than those required in a victim of good health and the inclination to assign that death to the co-occurring natural disease may be expedient but hazardous.

IV. Visible and/or Clinical Injuries

Visible injuries are not always present on the skin in homicidal strangulation and suffocation. When the physiology of death is related to jugular vein compression only, there will be petechiae. But in darkly pigmented skin, the natural skin color can be so close to the color of the hemorrhages that those petechiae may not be visible even when present. Death can occur without those petechiae appearing in the eyes or mucus membranes, so external examination may not show a clue to the mechanism of death.

There are no petechiae with carotid compression, and if the force is applied over a broad surface area, there may be no abrasion or contusion in the skin. There could be generalized petechiae with suffocation, but again, the skin color may prevent these from being visible on the outside of the body. With either strangulation or suffocation, homicide can occur without any external evidence of injury. When skin injuries are present, exclusive of petechiae, the skin injuries fall into categories depending on the mechanism of injury. The 2013 federal strangulation and suffocation statute within the Violence Against Women Act (VAWA) amended the federal statute to fully express this concept of "no visible injury."[3]

3. 18 U.S.C. § 113(b)(4)–(5); see also Pub. L. 113–114, § 906.

A. Skin

1. Injuries Caused by the Assailant

Ligature abrasions in suicidal hanging show a definite upward track somewhere around the circumference of the neck, often just behind one ear (the "suspension point"), proving the direction of force to be head-to-toe. In contrast, ligature strangulation should produce a horizontal or even downward-sloping band around the neck showing constriction of the skin. While it might be speculatively possible to affect a ligature strangulation assault by lifting the victim up off the floor using only the ligature, this scenario would require a number of conditions (e.g., unconsciousness).

Manual strangulation can show bruises or abrasions from the assailant's hands or fingers, sometimes with fingerprints that can be lifted from the surface injuries on the victim's skin (the assailant's DNA might also be recovered by moist swab collection of the victim's neck). Abrasion of the victim's skin under the chin is common and related to the victim wiggling the chin from side to side in an attempt to get the chin under the stranglehold. Patterned stamp abrasions may be created by a necklace or collar of a shirt, where the necklace or shirt is inside the stranglehold and becomes deeply indented into the skin.

Blunt force impact injuries created by punching or slapping the neck and face sometimes overlie the strangulation injuries.

In suffocation, where the mechanism is forcing the mouth and nose closed, there may be incised or torn, scraped, or bruised tooth marks on the inner mucosal surfaces or the upper or lower lips, but these are not generally present in victims who have no teeth. The tooth marks, when present, may be associated with lip swelling. There may be visible patterned skin abrasions over the nostrils or symmetric abrasions on the upper lip below the nostrils to show that the nose was pinched closed with great force. If suffocation is done with duct tape, there can be linear abrasions and tape adhesive residue across the face or within the hair.

2. Injuries Caused in Self-Defense (Defensive Injuries) on the Victim and the Assailant

Abrasions on the victim's skin under the chin are common and related to the victim wiggling the chin from side to side against the assailant's hand in an attempt to get the chin under the stranglehold. Patterned curvilinear abrasions made by the victim's fingernails are also quite common in strangulation cases. The victim will often dig in with the fingernails to try and get her fingers under the stranglehold (either manual or ligature) and create scrapes on the neck. The victim may also strike out at the assailant, causing scratches on the face or body of the assailant, which may indicate "defensive injury" in the assault. In the context of an assault taking place on a bed, with both the victim and the assailant unclothed, and the assailant on top of the victim, there are many possible locations on the assailant's body for the victim to reach. Finding assailant DNA under the victim's fingernails may be useful in proving the identity of a perpetrator.

3. Medical Procedure Evidence (Radiographs, Medical Imaging)

If there is a time interval after the assault during which the victim is medically supported (on life support) and, therefore, injuries are afforded an opportunity to heal before death, then the medical record may be useful in disclosing evidence of strangulation. In this circumstance, there may be no useful autopsy findings of the original strangulation injury, and the medical record must be used for evidence of the injury.

There are also rare cases where an assault resulted in medical assessment, the victim was discharged without recognizing the scope of the injury, and death occurred days later outside the supervision of a healthcare facility. In this circumstance, there will be autopsy evidence of the internal injury that progressed to fatality, but the acute injury evidence may depend on the observations made by the original clinicians through the original medical record.

Medical records can contain many findings that would support a conclusion of strangulation or suffocation, where these findings are not necessarily attended in the record by the word "strangulation" or the word "suffocation" as a medical conclusion. Signs and symptoms as previously discussed in this manual may be documented in the record. Further, as related to homicidal injuries, there may be more elaborate medical imaging studies like arteriograms or CT-angiograms of carotid artery dissection or bronchoscopic or laryngoscopic procedures where there can be photos of internal petechiae or vocal cord paralysis. A careful review by a healthcare professional well-versed in signs and symptoms of strangulation and suffocation may be necessary.

V. Internal Injuries

A. Location and Mechanisms of Internal Injuries Found at Autopsy

Internal injuries potentially present in homicidal strangulation include blunt force crushing injuries of the structures within the neck. An autopsy examination by layered dissection of the neck can show crush or tendon avulsions of the large muscles that support the turning and tipping movements of the head over the shoulders. There may be crush contusions within the small intrinsic neck muscles that support swallowing. There may be ligament tears or hemorrhages between the larynx and hyoid bone. There may be crush contusions in the swallowing muscles of the esophagus between the larynx and esophagus or in the esophagus against the bones of the cervical vertebrae. In rare cases, there can be fractures of calcified cartilages of the larynx. Hyoid bone fracture may occur, but it is not common in strangulation homicide, contrary to much of the entertainment industry dialogue about strangulation. Crush contusion between the jugular vein and carotid artery, within the carotid connective tissue sheath, or internal crush contusion of the intima (the inner-most lining) of one or both carotid arteries, sometimes also associated with a dissection of blood under the intima, or thrombosis (blood clot) may be present. Bone fracture of the cervical spine, and even spinal cord laceration, may happen with extreme force.

In strangulation, the injury evidence of asphyxiation includes petechiae in the skin and eyes, within the mucosa of the larynx, under the scalp, and within the brain. Microscopic tissue sections of the brain may show asphyxial (anoxic) changes within specific neurons.

With delayed death, there may be evidence of aspiration of gastric contents within the lungs, chemical pneumonitis, swelling of the mucosa of the larynx or vocal cords, or an air leak resulting in subcutaneous emphysema (bubbles of free air within the tissues).

With suffocation, there can be external petechiae in the skin of the legs or the chest and abdomen, as well as in the face, eyes, and head. Internal petechiae commonly appear on the bowel, liver, heart, and lungs. Suffocation by compression may result in contusions of the muscles of the chest or back and broken ribs.

There are other potential internal injuries as well, but that discussion would be more technical than the scope of this chapter. The intent here is to teach prosecutors how to approach autopsy evidence and evaluate the quality of an autopsy medical file with respect to evaluating the expertise of the clinician. The reader is referred to the reference list at the end of this chapter for more technical anatomic resources.

B. Symptoms That Appear in Survivors with Similar Internal Injuries

If there is an interval of survival after sustaining injuries, then the common strangulation symptoms of hoarseness of voice and pain on swallowing typically precede fatality. Vocal cord paralysis is related to neuropraxia (temporary nerve paralysis) by compression of the left recurrent laryngeal nerve, which may or may not show crush contusion over the left side of the upper laryngeal cartilage. Pain on swallowing would relate to visible crush contusion in the muscles between the larynx and esophagus (arytenoid) or between the esophagus and cervical spine (posterior pharyngeal constrictor).

C. Injuries of Forcible Sexual Assault

In intimate partner homicide, sexual assault is common. There may or may not be injuries of forcible sexual assault, but a detailed examination for injury must be done. At autopsy, both external examination and internal examination is necessary, along with collection of evidence. Sexual contact areas of the mouth, breasts, anus, and vagina need to be documented for injury as well as molecular evidence.

VI. Impact of Drug and Alcohol Intoxication on the "Expected" Pattern of Injuries

A. What Investigators and Prosecutors Need to Know About Post-Mortem Toxicology

Toxicology testing will ordinarily be done as a matter of protocol by medical examiners involved in homicide investigations. Toxicology may not be done in some cases if violent crime was not suspected prior to the autopsy. The result of post-mortem toxicology tests depends on what screening procedures the medical examiner requested and the protocol of the individual laboratory. In most instances there are no statutory requirements or practice standards that

dictate what must be done. The final reports may not specify the tests actually conducted, and if there is a medical intervention prior to death, the results of testing done in a hospital may be difficult to interpret without specific knowledge about the lab protocol and might only include urine screening (and not confirmation or quantification of drug levels in the blood).

For example, a hospital emergency room "drug screen" reported as "negative" may have been nothing more than a urine screen for cocaine and THC. Knowing what was tested and what was not is essential before interpreting results. Also, designer drugs such as substituted amphetamines (bath salts) may not show up in any toxicology test unless specifically ordered.

Blood alcohol (ethanol, drinking alcohol) can be altered by late post-mortem decomposition with obvious putrefaction, but otherwise the post-mortem blood alcohol is probably fairly representative of the true alcohol content of the blood at the time of death. Other drugs can change blood levels dramatically at the time of death through a process of "post-mortem redistribution," where it may require significant expertise to decide the meaning of the blood levels of some drugs. Toxicology can be helpful in explaining why an individual is dead with minimal injury, and toxicology can be exculpatory in an argument that death was caused by substance abuse and not by suffocation.

B. Determining "Vital Response" in Injuries

If the toxicology tests suggest lethal levels of drugs and alcohol, where death may be attributed to substance abuse alone, then careful consideration must be given to the injuries in strangulation or suffocation to make certain that those injuries occurred during life and not after death. A discussion follows concerning the appearance of putrefactive changes in the decomposing body that could be misinterpreted as strangulation injury. If decomposition is not an issue, then microscopic sections of the injuries are helpful to show that they occurred in life, resulting in a vital reaction such as hemorrhage or inflammation. In any case, the toxicology results can make prosecution more difficult, but there are often autopsy findings that can help confirm injury as the true cause, even in a severely compromised victim.

C. Charging Considerations When Toxicology Is Significant

Toxicology is often an issue for homicide victims and for survivors of strangulation and suffocation assault. At autopsy, toxicology will most likely be done. If there is a significant delay between injury and death, either by way of prolonged hospitalization or because there is a progressive injury, then the toxicology results must be interpreted in light of the time interval of survival from assault to death. In such cases, blood collected from the victim near the time of admission to the hospital might still be stored in the hospital laboratories and may be impounded by the medical examiner for analysis. There are a few minor adaptations that may need to be made for autopsy pathology when there is a significant time interval between death and autopsy, but for the most part, the blood levels obtained at autopsy will substantially represent true blood levels at the time of death. Survivors should also be evaluated with comprehensive toxicology testing. A victim evaluation in an emergency room is not just a documentation of forensic evidence; it is an opportunity to provide diagnosis and treatment for

disease. Often, that will include substance abuse. If we do not know about substance abuse, we cannot formulate a treatment plan and start the process for recovery for the patient and family. Further, it is going to come up at trial, and it is far better to offer the correct answer rather than let a defense attorney speculate about a completely unknown issue. Experience is that the toxicology test results are rarely as exculpatory as a defendant would have the jury believe. Failure to obtain toxicology may be viewed as evidence of bias on the part of the witness. It may also be a liability issue if an intoxicated victim is released and drives home while impaired as it is a victim safety issue.

VII. Artifacts of Decomposition at Autopsy

A. Putrefaction and Hemorrhage in the Neck

Bacteria within the bowel and over the skin's surface penetrate the body and tissues very quickly after death and begin the process of putrefaction. The bacteria emit bubbles of noxious, foul-smelling gases that permeate widely through the bloodstream and tissues along with the bacteria. Autopsy findings in putrid bodies may include the appearance of hemorrhage in the putrid muscles of the neck (especially when the body came to rest face down). This alone can give the false impression of strangulation.

B. Post-Mortem Hypostatic Petechiae

During putrid decomposition, a suspended body (hanging) can develop petechial hemorrhages in tissues that are subject to the hydrostatic force of the blood column from blood inside vessels above the hemorrhages and are commonly seen in areas of livor mortis (lividity). Sometimes called "Tardieu spots," these findings are associated with decomposition. Post-mortem hypostatic petechiae may be present if there is significant putrefaction, but they are not present at the moment of death and depend on factors such as temperature and many hours or days of post-mortem interval. They are associated with other sequelae of putrefaction including gas bloat, skin slippage, and intravascular hemolysis.

C. Post-Mortem Injury Caused by Exhumation of Interred Remains

Exhumation of the body may be necessary. The suspicion of homicide may arrive after there has been a presumed natural or toxic death where the medical examiner declined autopsy, and the body has been embalmed and buried in a cemetery, or the body may have been buried by the perpetrator in an effort to hide the crime. Death-scene investigators have variable experience in the procedures for exhumation. Lack of experience can result in damage to the body during exhumation. Distinguishing late post-mortem damage from inflicted injury may not be a simple and obvious process, especially if the body is partly skeletonized at the time of exhumation. A forensic anthropologist with specific training in exhumation techniques and with specific training in bone injury may be a very helpful adjunct to the investigation.

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Using Experts: Tips for Prosecutors and Expert Witnesses

Gerald W. Fineman, J.D.

Editor's Note: Although CDAA always strives to be gender-neutral, strangulation is a very gendered crime. In an effort to not misrepresent this, victims in this manual are referred to as female, while the defendants are referred to as male unless otherwise noted.

I. Introduction

Expert testimony helps overcome the myths and misperceptions surrounding strangulation cases. Expert testimony explains the absence of external injury. It explains why even without external injury there can be a serious, life-threatening internal injury. Expert testimony explains why a victim can experience an episode of strangulation and still be able to breathe. The right expert can provide insight into a victim's reaction to the assault, which may include the impact of both trauma and the absence of oxygen to the brain on the victim's ability to perceive and recall. Experts provide essential testimony to help achieve a successful case outcome.

Evidence Code section 720(a) defines expert as a person "qualified to testify as an expert if he [or she] has special knowledge, skill, experience, training, or education sufficient to qualify him [or her] as an expert on the subject to which testimony relates." The expert need not be a medical doctor. It can be anyone with sufficient knowledge, skill, experience, or education. In many jurisdictions, a medical doctor will not be available to testify on a regular basis. Law enforcement officers, paramedics, forensic nurses, and a host of other individuals have qualified as expert witnesses with sufficient knowledge to testify regarding strangulation cases. Expert witnesses can be used for various reasons, including educating the judge and jurors about medical, technical, or scientific principles. Experts may also be able to express an opinion after evaluating the significance of the facts of the case.[1] Lack of physical evidence and injury may lead a jury to handle a strangulation case as a minor incident rather than a serious life-threatening assault. Consequently, even when the victim has not received medical treatment, it is important to use an expert to educate the judge and jurors about the seriousness of strangulation. There are four main reasons to consider using an expert in a strangulation case:

1. The expert can explain that lack of visible evidence is common and should not be used to minimize either the forensic significance or the medical risk to life.
2. The expert can explain that adequate medical evaluation does not happen as often as it should because: (a) the victim does not think it is necessary or it will cost too much; (b) first responders do not appreciate the degree of medical risk, and therefore do no push for evaluation; and/or (c) emergency medicine physicians are not current regarding new information about the medical risk and appropriate testing, observation, and consultation regarding strangulation.
3. The medical expert can discuss the seriousness of *any* strangulation event and educate the jury regarding the interpretation of whatever data is available for the specific case.

1. Gael B. Strack and George McClane, *How to Improve Your Investigation and Prosecution of Strangulation Cases* (May 1999) National Center on Domestic and Sexual Violence <*http://www.ncdsv.org/images/strangulation_article.pdf*> (accessed Sep. 1, 2020).

4. An expert can advise a judge and jurors about facts, including: (1) strangulation can cause unconsciousness within seconds; (2) strangulation is one of the best predictors of the subsequent homicide of domestic violence victims;[2] and (3) most strangulation cases produce minor or no visible injuries; however, victims may suffer internal injuries and have symptoms that can be documented.[3]

II. Developing, Selecting, and Using Experts

Expert witnesses provide value at every stage of the proceedings. Do not overlook the possibility of using an expert at a bail hearing, trial, or sentencing hearing. These pre-trial and post-trial hearings provide excellent opportunities to acclimate your expert and your factfinder to the use of an expert. You must determine what kind of expert the case requires. To establish some basic principles surrounding strangulation, consider a law enforcement officer. If there are significant injuries, you may want the treating physician who can provide detailed descriptions of the victim's injuries. For a general discussion of medical issues, consider another medical expert such as a coroner, medical examiner, emergency room physician, forensic nurse, or a paramedic who has training and experience handling strangulation cases.[4]

In other cases, consider using a police officer or investigator trained in investigating strangulation cases as a part of their domestic violence, sexual assault, child abuse, or human trafficking investigation background. The Pennsylvania Virtual Training Network (PATVN) and the Pennsylvania Police Chiefs Association developed a 25-minute online training module and exam for police officers. Upon receiving a passing score, officers receive a certificate indicating that they have taken and passed the course.

This free training is available at *https://www.strangulationtraininginstitute.com/training/online-strangulation-training/*. You can also develop advocate experts who work in the district attorney's office or at a community-based organization. While they may not be able to discuss in great detail the medical ramifications of strangulation, they can incorporate their specialized training and experience working with strangulation victims. Further, they can discuss the dynamic of strangulation in the context of intimate partner battering. Remember, experts do not necessarily have to have a long list of degrees—they just need to have relevant training and experience.

Once the category of expert has been decided, the next step is to locate the right one. The best course of action involves developing experts within your own jurisdiction. The California District Attorneys Association maintains an expert witness library that can be searched by topic or name of the expert.[5] Prosecutors should check references and the background of any expert. The Training Institute on Strangulation Prevention also has resources regarding experts, their qualifications, and transcripts.[6] Whatever experts you use, they need to stay within their area of expertise. No one is a true "strangulation expert." They are expert witnesses in their own fields who possess specialized knowledge, training, education, and experience in the area of strangulation. Every expert comes with strengths and weaknesses. Try to select an expert who will most benefit your case.

2. Gael Strack and Casey Gwinn, *On the Edge of Homicide: Strangulation as a Prelude* (Fall 2011) 26 Criminal Justice 3 <*https://bit.ly/2JVP5VH*> (accessed Sep. 1, 2020).
3. *Id.*
4. *Id.*
5. <*https://www.cdaa.org/prosecutor-resources/expert-witness-library*> [member login required] (accessed Sep. 1, 2020). Non-members interested in inquiring about an expert witness should contact Senior Paralegal Regan Steele at rsteele@cdaa.org.
6. <*https://www.strangulationtraininginstitute.com*> (accessed Sep. 1, 2020).

III. Motions

There are two hurdles to introducing expert testimony: establishing the relevance of the testimony and proving that it is sufficiently beyond common experience such that the opinion of the expert would assist the trier of fact.[7] A written pre-trial motion sets the stage for admissibility of the expert testimony and alerts the court to particular issues in the case. Incorporating some of the myths and misperceptions surrounding strangulation into your motion helps to overcome both hurdles. (*Note*: This motion is for a medical expert, but it can be easily modified to support the arguments for other types of expert witnesses, such as law enforcement or advocates.). Expert witness testimony does not call for new scientific testimony, it only involves basic principles of first aid, airway, breathing, and circulation.

IV. Preparing the Expert

Pre-trial preparation of even the most seasoned expert is essential. You should not call the expert, and the expert should not testify, if the two of you do not meet before trial. Even when you have previously worked with the expert, such a meeting is critical to making certain you are both in sync for the presentation of testimony. Preparing the expert also requires that the prosecutor have at least some basic knowledge surrounding strangulation as a mechanism of injury and the corresponding myths and misperceptions.

A. Qualifications

First, review with your expert their curriculum vitae (CV) and ensure that it is current. Make certain you have provided the defense with a current copy and there are no errors in the document. For example, an expert who lists membership in a professional organization should ensure all memberships are current. Often, experts possess special skills that set them apart from others in their field. A law enforcement officer who spent several years as a paramedic prior to becoming a police officer might be one example. A medical doctor who used to compete in Jiu-Jitsu before learning about strangulation would be another example. Prepare the expert for any challenges to his or her qualifications. The prosecution should never stipulate to the qualifications of the expert. You want the jury to hear about all the education, training, and experience that qualifies the expert to testify. For an expert who has never previously testified, see *People v. Montes*.[8] This case allowed testimony of a police officer gang expert, even though the witness had not previously testified as such an expert.

B. Subject Matter/Case-Specific

Pre-trial preparation includes a discussion about the subject matter on which the prosecutor seeks to offer the witness as an expert.[9] Meet with the expert to review the purpose and focus of the expert's direct testimony. Experts tend to fall into two categories: general and case-specific. A general expert may be coming in without any knowledge about your victim. This expert will

7. Evid. Code §§ 201 and 801.2.
8. *People v. Montes* (2014) 58 Cal.4th 809.
9. NDAA, *Introducing Expert Testimony to Explain Victim Behavior in Sexual and Domestic Violence Prosecutions*, p. 35 <*https://www.evawintl.org/Library/DocumentLibraryHandler.ashx?id=1040*> (accessed Sep. 1, 2020).

discuss the general myths and misperceptions surrounding strangulation and will not render an opinion on the actual facts of your case. This expert may say something is consistent or inconsistent with a given set of hypothetical questions. A case-specific expert has either had direct contact with your victim (e.g., a treating paramedic) or has reviewed parts of the case to render an opinion.

C. Questions for the Expert

For your guidance, we have assembled a list of potential questions. These are not exhaustive and only serve as a starting point for prosecutors.

1. Questions About the Expert's Qualifications

1. Name.
2. Title.
3. Education.
4. Licenses.
5. Certificates.
6. Professional organizations.
7. Teaching experience (if applicable).
8. Any experience in local policy development regarding the evaluation or care of strangled patients?
9. Published writings (if applicable).
10. Pertinent presentations at professional meetings.
11. Previously qualified as an expert witness? How many times?
12. Testified for the prosecution?
13. Testified for the defense?
14. Current employer.
15. Current duties.
16. Years employed in current position.
17. Prior work experience.
18. Medical training (if applicable) including board or sub-specialty board certification(s)?
19. Law enforcement training (if applicable)?
20. Strangulation training?
21. Examined patients who have reported being strangled (if applicable)?
22. How many patients have you examined as a treating physician (if applicable)?

23. For academic physicians (medical schools or teaching hospitals), ask additional questions about experience and responsibilities for teaching doctors in training about evaluating and managing a strangled patient.

2. Questions Related to a Non-Fatal Strangulation Case

1. Define choking.
2. Define strangulation.
3. What is the difference between choking and strangulation?
4. Describe the three methods of strangulation? In this case, is the strangulation manual or ligature? If manual, one hand, two hands, or other body part?
5. Define asphyxia. [Asphyxia is specific to a lack of oxygen for brain cells; hypoxia is a generic lack of oxygen in the blood. So, asphyxia is brain hypoxia.]
6. Define hypoxia.
7. In strangulation, what causes hypoxia? [Impaired respiration, impaired blood flow to the brain, or both?]
8. What happens to the brain when there is a lack of oxygen after 10 seconds? 20 seconds? 30 seconds? 1 minute? 2 minutes? 3 minutes? 4 minutes?
9. What is hypoxic encephalopathy?
10. What is the difference between hypoxia and asphyxia?
11. What happens to the brain when there is asphyxia or an interruption of oxygenation?
12. Can a lack of oxygen to the brain result in either temporary or permanent brain injury?
13. Other than unconsciousness, are there other signs of temporary hypoxia or asphyxia?
14. What do you mean by behavioral changes? Please discuss the difference between "acute" changes while oxygen starvation of the brain is occurring and "delayed" changes that may surface later.
15. How much external pressure and time does it take to cause unconsciousness? Please discuss the spectrum of "altered" consciousness beginning with light-headedness and dizziness to the other extreme of death. What are some of the variables?
16. What are the signs or symptoms of unconsciousness?
17. How long does it take a strangled victim to regain consciousness after unconsciousness? What are the variables?
18. How much external pressure must be applied before death occurs? What are some of the variables?
19. Aside from unconsciousness or behavioral disorders, are there other signs and symptoms of strangulation?

20. Would a chart help you explain those signs and symptoms? Did you bring a chart with you today?
21. Please describe the external signs of strangulation.
22. Where would you find visible findings such as redness or scratch marks?
23. Impression marks, claw marks?
24. What is petechiae?
25. How does it look?
26. Where can it be seen on victims after strangulation has occurred?
27. How long does it last?
28. Are there other causes for it?
29. Why would there be swelling to the neck from strangulation?
30. Are there other internal injuries associated with strangulation?
31. Are there internal injuries associated with hypoxia?
32. What would cause the tongue to swell?
33. What are some of the symptoms of strangulation?
34. Can strangulation cause voice changes?
35. Can strangulation cause changes in swallowing?
36. Do some victims of strangulation vomit or feel like vomiting?
37. Do some victims of strangulation urinate or defecate? [During the event, all survivors will do both eventually.]
38. Is there a way to tell how close a strangulation victim has come to death?
39. Are all strangulation cases serious?
40. What information and/or documents did you review in this case prior to testifying (if applicable)? [Remember, it is not necessary for your expert to review any documents in your case.]
41. From your review, what are the signs and symptoms the victim exhibited?
42. In your opinion, are those signs and symptoms consistent with someone who has been strangled?

3. Questions to Dispel Strangulation Myths and Misperceptions

1. If MMA fighters and law enforcement use strangulation, is it safe?
2. Can you be strangled and still breathe?
3. Can you be strangled and still speak or yell during the episode?
4. Can you be strangled and not have any recollection or limited recollection?
5. If there are no marks left behind, is there is no injury and/or no serious injury?

6. Once the marks subside, are there long-term consequences of strangulation?
7. In some of the studies, victims lost consciousness after only a few seconds. If the victim in this case states she maintained consciousness for an extended period of time, does that mean she was not strangled?

D. Exhibits for the Expert

Exhibits help the expert explain the misunderstood aspects of strangulation. For example, diagrams of the internal workings of the neck assist the expert in explaining the anatomy of the neck area.

A photograph of the victim where signs of strangulation were present assist the expert in explaining those injuries. A chart listing the signs and symptoms experienced by the victim may also be used, as well as mannequin heads, anatomical models, and other physical exhibits. Expert witnesses typically develop more authority in the eyes of the factfinder when they are teaching using an anatomical model, not lecturing.[10] Hoses can be used to illustrate the flow of blood to and from the brain. Balloons can explain the increase of pressure causing petechiae. Medical records that reflect victim injuries or symptoms provide corroboration for expert testimony as do audio recordings, including the 911 dispatch tape. The expert can discuss that voice change, hoarseness, and shortness of breath are consistent with injury during an assault involving strangulation. Recordings of the victim's voice over a period of time will often demonstrate changes and resolution of injuries after the assault.

V. Anticipated Cross-Examination Questions

There are four areas that are typically attacked during the cross-examination of an expert witness: qualifications; basis of opinion; substance of opinion; and bias, motive, or prejudice.

A. Qualifications

The defense may or may not choose to attack all or some of these areas. Expect less experienced experts to be challenged on their background, education, and experience. For example, the defense typically tries to attack nurses because they are not doctors. Remind your expert to never exaggerate experience. Encourage experts to be well versed with their CV. Actual experience working with strangled victims—especially following or managing them over time—provides the most significant qualification for an expert. This often is inadequately captured on the CV.

B. Basis of Opinion

The defense may question prosecution experts about reports, studies, or evidence they have not reviewed. If your expert relies upon reports or studies, they should have reviewed the reports prior to testimony.

10. CDAA maintains an anatomical model lending library for prosecutors. For a complete listing of available anatomical models, visit <*https://www.cdaa.org/prosecutor-resources/models*> [member login required] (accessed Sep. 1, 2020).

C. Substance of Opinion

This is the area where defense counsel may attempt to gain concessions from the expert. Defense counsel may attempt to get experts to concede facts that are consistent with the defense theory. (*Note*: It is always very helpful for the expert to have some understanding ahead of time about the anticipated defense theory.) A good expert will answer these questions truthfully. Experts are not there to help one side over the other. They are there to provide their specialized knowledge, training, education, experience. Good experts willingly concede the limitations of their opinions.

D. Bias/Motive/Prejudice

Questions in this area include how the expert is being compensated for his or her testimony, whether the expert has ever testified for the defense, and what percentage of the expert's income, if any, is derived from courtroom testimony. In general, remember if the question posed contains incorrect information about the expert's testimony (or incorrect assumptions that become agreement if the expert answers without clarification), the expert needs to correct that information before answering the question. Experts may be asked the same questions in different ways and they will want to make every effort to be consistent in their answers. Experts should be alert for compound questions, and they should be sure to clarify what part of the question they are answering. If there are other possible conclusions, experts need to be willing to acknowledge they exist.

For example, a medical expert might be asked, "Are there other causes of petechiae other than strangulation?" Even if the expert knows that the other possibilities are ridiculous, he or she must acknowledge all possibilities, with an answer such as, "I was not aware the patient was in active labor when she was strangled."

VI. Tips for the Testifying Expert

Quality courtroom testimony starts with pre-trial preparation.

A. Pre-Trial

Beyond the pre-trial preparation previously discussed, potential experts should:

1. Be familiar with any publications in their area of expertise if the article(s) form the basis for their opinions.
2. Know the qualifications or requirements for any member organizations they belong.
3. Know the ethical obligations or protocols that govern their profession or practice.
4. Watch other experts testify, if possible.
5. Participate in a mock trial.
6. Review any available transcripts of respected transcripts, if they have testified in the past.

B. In Court

1. Dress professionally.
2. Act professionally at all times in the courthouse—jurors may observe you outside of the courtroom.
3. Do not be afraid to look at the jury when testifying—make eye contact. This is especially important for "explain" questions.
4. Listen to the question asked and answer that question. Do not supply additional information that was not requested unless it is essential for jury comprehension.
5. When an objection is made, stop talking. It is often helpful to pause for a second or two after the question to allow for an objection.
6. Listen carefully to the judge regarding objections and rulings.
7. Ask for clarification on any question not fully understood.
8. During cross-examination remain poised and respectful—do not spar or argue with the defense.
9. Rely on the prosecutor to make objections to improper questions and poor treatment of you by the defense.
10. Never overstate the facts or your opinion.
11. Never exceed the scope of your experience or your expertise.
12. Avoid conclusory statements.
13. After the case concludes, seek feedback from the proponent of your testimony.
14. *Always tell the truth*.

ABOUT THE AUTHOR

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This chapter was originally written by ***Jean Jordan, J.D., LL.M****.*

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Victim Advocacy in Strangulation Cases

Catherine M. Duggan

Editor's Note: Although CDAA always strives to be gender-neutral, strangulation is a very gendered crime. In an effort to not misrepresent this, victims in this manual are referred to as female, while the defendants are referred to as male unless otherwise noted.

Day after day, retold in crime reports and news stories, women are enduring the demonstration of power and control over their life or death. The wrong step, ever so slight—perhaps serving a meal at the wrong temperature—can invoke a blackened eye, a broken nose, a split lip, or a near-death experience from manual strangulation. And yet, paradoxically, victims will often struggle for justice while opposing the efforts of law enforcement and prosecution. "If someone else hadn't called the cops," said one victim at the sentencing of her husband—who had broken her nose, multiple ribs, and beaten her face until she was unrecognizable—"I don't think I would have called for help. I think I would have just slept it off." Another victim, as she was being strangled, reported to law enforcement that she whispered, "I love you," with what she thought was her last breath.

How is it that a person does not want her batterer incarcerated? How is it that a woman will refuse to testify against the person who has harmed and oppressed her? How is it that a victim professes love for the person responsible for inflicting physical and psychological injury? Such ideas sound strange and frustrate the efforts of law enforcement officials, prosecutors, and advocates. Still, those victimized by violence perpetrated by an intimate partner need help and their batterers should be punished for their violent behaviors. Not merely because it is the law, but because it is morally correct.

I. Understanding Victimology

Untangling the myriad reasons and overlapping characteristics that explain why a woman would stay in an abusive relationship is vital to providing meaningful advocate interventions and services. To illustrate the point, a woman who grows up with a father who batters her mother may learn how to be the wife of a batterer and how to live in the functional abnormality. Violence, planted by example and reinforced by experience, has become her demon-familiar. Early childhood abuse and neglect may also create a demon-familiar at the core. It is the demon-familiar that causes her to repeat behaviors that bring the effect she has learned to expect. She may equate some measure of violence with love, believing the batterer is hurting her because he loves her. She may feel defective, as if she deserves it. Feeling helpless, she may view herself as unable to support herself or her children without the person who is maltreating her. Battery gets in its punches, and it is a great devastator of will. Repeated assaults—physical or verbal—weaken morale and the deteriorate self-esteem, making the victim reluctant, sometimes unwilling, to end the relationship. Even if she is willing, she may lack the needed financial resources. She may not be able to afford housing, childcare, or basic life necessities. She may worry that her children will lack financial security if she leaves the batterer. Insufficient funds for housing, access to childcare, and limited shelter options, which only provide shelter for 30 days and do not allow enough time to reconstruct a life, are but a few of the obstacles confronting a battered woman.

Learned helplessness is another factor to consider in determining how best to serve victims. Learned helplessness is an observable stress response that consists of self-blame, chronic anxiety, extreme passivity, or denial of anger while directing anger inwardly. Unable to protect her own life or the lives of her children, the battered woman may present a tone of fatalism. She may not want to be publicly identified as a victim. She may wish to control others' perceptions of her to avoid a stigmatizing condition.

Cultural and religious influences may also prevent a battered woman from separating or divorcing under any circumstance. Cultural beliefs may cause her to not want to bring shame on the family, so she will try to keep the violence a private matter. Cultures operating under ancient themes of female subordination may offer the batterer impunity. This tells the woman that the batterer can take justice into his own hands and dole out arbitrary punishments for transgressions he does not wish to tolerate.

Battered women know the batterer will use force to maintain power if challenged. Violence is the spine of the relationship, in the name of power, conquest, dominance, and submission. The victim knows that leaving can be a deadly course of action for her. She also knows that staying is not much safer. Still, the risk of staying may be less than the risk of living on the streets. The risk of staying may be less than the risk of losing custody of her children.

II. Guiding Advocacy Principles

Guiding advocacy principles should be grounded in an understanding of trauma and victimology. Services and interactions should speak to the unique challenges confronting women in violent relationships, sometimes with rogues as dark as fiction could create. Advocates who have an understanding of trauma and victimology issues will be better equipped to meet the needs of the victim. Additionally, advocate responses to cultural and religious influences are best achieved by building a staff that mirrors the demographics of the community served.

Basic principles creating the foundation for advocate interventions and services should include the following:

- Victims should be treated with dignity and compassion, even when uncooperative with law enforcement or prosecution.
- Victims are not responsible for the violent behavior of the batterer.
- Victims are deserving of respect with regard to cultural background and belief systems.
- Victims are best positioned to judge the danger the batterer presents. No one knows the batterer better than the victim.
- Victims have the right to make their own decisions and have those decisions supported with compassion and understanding.

A. Advocacy Goals

Advocacy goals generally include the following:

- Increasing the victim's safety.
- Decreasing the victim's trauma-related symptoms.

- Preventing secondary victimization.
- Clearly informing the victim of her rights and responsibilities in the criminal justice system.
- Supporting the victim during the investigation and prosecution.
- Validating the victim's feelings to counterbalance the batterer's minimization and blame.

B. Initial Contact

The initial victim contact is critical in affecting the relationship between the advocate and the victim. The primary purpose of the initial contact is to gather information needed to respond to the needs of the victim and to assess the level of risk. Evaluating risk level and understanding the needs of the victim is easier said than done. For that reason, it is important for advocates to use the initial contact as an opportunity to look and listen, approaching the victim from a supportive position. The process is one of listening, asking questions, asking for clarification, asking additional questions, and observing. The goal is to join in a partnership with the victim for the protection of the victim and any children involved. Safety is the paramount goal.

The advocate should understand the importance of certain behaviors as risk factors for attempted or completed homicide. Risk factors associated with higher levels of violence include the following:

- Whether the batterer has threatened to kill the victim.
- Whether the batterer threatens suicide if the victim leaves.
- Whether the batterer threatens to harm the children if the victim leaves.
- Whether the batterer has brandished a knife or gun.
- Whether the batterer has been abusive to animals or pets.
- Whether the batterer has choked the victim.

These behaviors epitomize the power dynamic and may be predictors for the batterer's escalation to more lethal behavior. Advocates should appreciate the dangers associated with risk factors and be able to explain the dangers of such brutal conduct to the victim.

For example, to appreciate the dangers associated with strangulation, it is essential for the advocate to understand that strangulation is a type of asphyxiation. Manual strangulation, which is the most common form of strangulation used in domestic violence cases, may be done with a person's hands or forearms. It has only recently been identified as one of the most lethal forms of domestic violence: Unconsciousness may occur within seconds and death within minutes. Not only is strangulation a felonious assault, but it may be an attempted homicide. It is one of the ultimate forms of power and control, because the batterer can demonstrate control over the victim's next breath.

Victims will feel terror and severe pain, and if the strangulation persists, unconsciousness will occur. Before lapsing into unconsciousness, the victim will usually resist violently, often producing injuries to his or her own neck in an effort to fight off the batterer. In this effort, the victim frequently inflicts injury on the face or hands of the assailant. (These defensive injuries may not be present if the victim is physically or chemically restrained.)

Advocates should recognize the following signs and symptoms of strangulation:

- hoarseness, raspy voice, or loss of voice;
- redness, swelling, abrasions, or bruising on the neck; and
- petechiae (small capillaries of the skin that are inflamed and bleeding) on the eyes, face, or neck.

Advocates should encourage strangulation victims (especially pregnant ones) to seek medical attention. Even innocuous symptoms (e.g., light-headedness, dizziness, swallowing difficulties, headache, hoarse voice) warrant medical treatment. Advocates should encourage victims to report to law enforcement, emphasizing the seriousness of strangulation. However, advocates must respect a victim's decision and support that decision.

Advocates should consider using a standard intake form that the victim completes at the time of initial intake. The intake form will help the advocate gather a history of the violence, including the types and severity. Advocates are encouraged to provide strangulation victims with a brochure specifically addressing this form of violence. Encourage strangulation victims to monitor signs and symptoms using a log to record the date and time of symptoms.

Information received at the time of initial intake should trigger an appropriate triage process. In all cases, the first step should be to provide for the physical safety of the victim and any children residing in the home. The advocate should work with the victim to develop an appropriate safety plan designed to reduce risk. However, advocates should not assume that leaving the batterer is the best way to increase safety. There is ample evidence that violence frequently worsens after separation.

Advocates often experience a compelling urge to protect the victim from future harm but must understand the limitations of their ability. Victims of intimate partner violence have a significant relationship with the batterer, making it likely the victim wants the abusive behavior to stop, but may not want the batterer to be punished. Advocates need to resist any judgments, understanding that the victim is likely to be ambivalent. If the advocate overly supports one set of feelings—such as anger at the batterer—the advocate may discourage the victim from expressing her uncertainty. It is not the purpose of advocacy to instruct the victim on whom she should love or about what choices she should make in her life. Nothing gives the advocate that wisdom or authority.

C. Trauma-Informed Service Delivery

The fundamental principle underlying trauma-informed services is an understanding of the impact of domestic violence on victims, including cultural context and common coping and adapting strategies used by victims. Trauma-informed services emphasize safety and personal choice. Trauma-informed services are not meant to treat the specific symptoms of trauma, but rather to support resilience and self-care.

The advocate should strive for a collaborative relationship with the victim, establishing goals together. The experiences and choices of the victim should be validated. The right of the victim to choose must be made explicit. Advocate approaches must be perceived by the victim as being

supportive, safe, and predictable. Interactions between the advocate and the victim should be based on the idea that something wrong was done to the victim, rather than something is wrong with the victim. Fundamental to trauma-informed services in domestic violence cases is increasing the victim's self-esteem.

Victims of domestic violence develop ways to shut down, numb-out, or disassociate to survive the violent, demeaning, and degrading behavior of the batterer. Spiritual strategies such as prayer are often used by victims. Faith in God can be a source of strength for many victims. The advocate should recognize the victim's adaptation strategies as originating from the violence, rather than judging the strategies as part of the avoidance dynamic. Compassionate understanding is key to reducing the victim's guilt and shame. It is not uncommon for victims to turn to drugs or alcohol to dull the pain. This should be worked with as a coping mechanism.

D. Well-Being and Safety of the Children

The results of violence against women are not borne alone by the victim. Advocates should not overlook the harm to the children growing up in the violent home. Children who witness domestic violence often have symptoms similar to children with other forms of child maltreatment. The home environment is unstable and highly unpredictable. Inferior education, unstable housing, and inadequate mental health care are all bitter components of the maltreatment in their environment. Emotional responses can range from aggression to withdrawal and depression. The violence contributes to chaos, neglect, and a sense of unpredictability.

The victim may be concerned with being labeled a neglectful parent and losing custody of the children. Child Protective Services often removes the children from the custody of the mother on the idea of "failing to protect." The practice places the responsibility of controlling the violence on the victim. This is another reason victims are reluctant to cooperate with law enforcement. This practice may cause the victim to conceal violent events or to recant accusations. Batterers regularly use child custody disputes, visitation, and joint custody arrangements as opportunities to threaten, intimidate, and harm the victim. The advocate should be sensitive to these issues while working to ensure the children are safe and receive the services they require.

E. Promising Strategy

Victims of domestic violence will often seek a domestic violence restraining order as a way of stopping the violence. Oftentimes, victims have not made a report to law enforcement. The victim may have visible injuries that have not been photographed by law enforcement. Even if the victim has reported to law enforcement, the injuries may not have been visible at the time the report was made. This is especially true for strangulation victims who may suffer no visible injuries whatsoever.

To ensure victim injuries are photographed, the advocate should explain to the victim that when domestic violence is not reported to law enforcement as soon as possible, the prospect of conducting a thorough investigation may be diminished. In a neutral manner, the advocate

should offer the victim the option of collecting evidence by photographing the injuries. Once the evidence is collected, the victim may either report the violence to law enforcement immediately or at a later time. If a report has been made to law enforcement, the advocate should explain how injuries "stage" over time and the importance of photographing the injuries at different stages. In either scenario, the decision is one the victim needs to make voluntarily.

If the victim agrees to have the injuries photographed, the advocate contacts the appropriate law enforcement agency and requests the injuries be photographed. The advocate should accompany the victim to the agency for the purpose of photographing the injuries. The detective meets the victim, explains what he or she will be doing, then photographs the injuries. In cases where a law enforcement report was made and charges are pending, the detective routes the photographs to the assigned deputy district attorney. If the victim wishes to defer reporting to law enforcement, the photographs are held as evidence in the event the victim does decide to report at a later date.

The strategy has positive outcomes for both the victim and prosecution, including:

- The victim has the opportunity to have the evidence collected while deferring reporting to law enforcement.
- Successful prosecution is enhanced through evidence collection.

ABOUT THE AUTHOR

Catherine M. Duggan *retired as the director of the Ventura County District Attorney's Crime Victims' Assistance Unit. She participated in developing the District Attorney's Sexual Assault and Child Advocacy Center, the Family Violence Prevention Center, and the Elder Abuse Rapid Response Team. She has served on the Board of Directors and as president of the California Crime Victims Association. She is the recipient of the Governor's Crime Victim Advocate Award for outstanding leadership in advancing victim rights. Ms. Duggan currently works as a consultant on domestic violence and sexual assault.*

Conclusion

Gael B. Strack, J.D.

Casey Gwinn, J.D.

"I've been a police officer for 30 years. Why am I just now getting this training? I have let down victims."

— Law Enforcement Officer at 2019 Strangulation Training in San Diego

"Strangulation is not normal. Strangulation is not self-defense. Strangulation is an attempted homicide by restricting blood flow or airflow to the brain and body."

— Detective Tim Brown, Gilbert Police Department, Arizona

Editor's Note: Although CDAA always strives to be gender-neutral, strangulation is a very gendered crime. In an effort to not misrepresent this, victims in this manual are referred to as female, while the defendants are referred to as male unless otherwise noted.

The tragic deaths of 17-year-old Casondra Stewart and 16-year-old Tamara Smith in 1995 led to dramatic changes in San Diego, California, and across the United States. Our original San Diego study of 300 police reports involving "choking" has inspired tremendous change. We have been honored to receive confirmation of the transformative impact of our early research. "When the results of their efforts were published in a special issue of *The Journal of Emergency Medicine*, a discussion began among researchers and practitioners who recognized that non-fatal strangulation in domestic violence was different and more prevalent than previously understood." (Pritchard, 2016). Today…

- Strangulation has been clearly linked as the "last warning shot" before a domestic violence homicide, officer-involved critical incident, or mass shooting.
- Strangulation is now considered to be the equivalent of water boarding and a form of torture.
- New laws have been passed allowing prosecutors to handle non-fatal strangulation cases as felonies even with minimal visible injury, requiring judges to consider strangulation as a key factor at bail hearings; requiring officers to warn victims about the seriousness of and potential for internal injuries and mandating them to track stranglers through new specialized forms; and new law enforcement protocols are now recommending that paramedics be called to scene. In addition, at least one state, Idaho, is requiring a full evaluation for purposes of sentencing.
- Strangulation task forces and multidisciplinary teams have been created across California and around the country.
- Countywide strangulation protocols have been adopted in many places.

- New forms have been developed to assist law enforcement officers in documenting strangulation cases and the clinical assessments and documentation provided by medical professionals is expanding.
- Additional training tools for all professionals available at *https://www.strangulationtraininginstitute.com*.
- Position papers, state and federal laws, and legislative resolutions have been adopted drawing more attention to the seriousness and lethality of near and non-fatal strangulation assaults.
- Great case law is emerging as the direct result of fearless and determined police officers, prosecutors, and medical professionals as they push the envelope and aspire to develop the field further.
- Researchers are now conducting more research on non-fatal strangulation assault survivors, with a recent strangulation bibliography published by the Training Institute on Strangulation Prevention expanding to over 200 articles.
- The Institute's imaging recommendations are slowly being adopted with more carotid dissections than ever before being identified before the stroke or death of the victim.
- Health alerts and public awareness campaigns are being produced by Health and Human Services Departments.
- Specialized training for dispatchers, law enforcement officers, paramedics, prosecutors, and advocates are now helping thousands of domestic and sexual violence professionals across the country improve their investigation, documentation, prosecution, and advocacy when handling non-fatal strangulation cases.
- Law enforcement and prosecution protocols are being implemented and/or updated.
- Paramedics are being called to scenes to medically evaluate the strangled victim for internal injuries and transport her to a hospital.
- Crime scene specialists are being called to domestic and sexual violence calls to better document the crime scene.
- Doctors, forensic nurses, domestic and sexual violence detectives, and other professionals are qualifying as experts and are testifying in court about strangulation dynamics.
- Forensic nurses are expanding their practice to include the clinical documentation of the strangled victim.
- Strangled victims are being screened for traumatic brain injuries.
- Prosecutors are routinely screening strangulation cases as a felony first and misdemeanor second, with many more cases being prosecuted as attempted murders.
- Prosecutors are pursuing more sexual assault cases involving strangulation recognizing that while you can consent to sex, you cannot consent to an aggravated assault involving life-threatening violence.
- Trauma is now being considered as evidence.
- Advocates are integrating their strangulation training into their outreach and advocacy practices, providing victims with information and brochures on what they need to know and expanding their scope of work to include medical advocacy for the strangled victim.
- Professionals, including the media, have made the shift from calling it "choking" to calling it "non-fatal strangulation."
- Promising best practices are emerging, thus enabling a more effective response to non-fatal strangulation crimes.

The United States Department of Justice has recognized the seriousness of strangulation cases and has funded Alliance for HOPE International to launch the Training Institute on Strangulation Prevention to provide ongoing training for thousands of professionals through online technology, webinars, conferences, faculty orientations and updates, and partnerships with state and national organizations and other OVW and OVC technical assistance providers. Such funding and political support reflects rising awareness of the importance of prevention work by the top tiers of our criminal and civil justice system.

The conversation has clearly changed from why should strangulation and suffocation be treated as a felony to why wasn't the case charged as a felony? The prosecution of non-fatal strangulation crimes has become one of the most important homicide prevention approaches ever identified.

This manual is a direct result of the partnership between the Training Institute on Strangulation Prevention and the California District Attorneys Association. Our allies across California helped pass and implement the Diana Gonzalez Strangulation Prevention Act of 2011, and their collective efforts are saving lives.

While much has been accomplished, and many lives have been saved due to the tremendous work of criminal justice, social service, and medical professionals, there is still so much more to do. We all look forward to the day when strangulation cases are treated as a serious criminal offense in every jurisdiction in California and across the United States, and strangulation training is a core training topic for every professional. It is our collective hope that this manual inspires others to develop comprehensive response protocols to strangulation crimes in every state in the nation, including developing similar training manuals using this manual as a template.

We are grateful to the hundreds of individual police officers, prosecutors, advocates, doctors, nurses, probation/parole officers, and elected officials who have become champions of change and have made significant contributions to their respective systems in responding to non-fatal strangulation assaults. By investing time in becoming an expert in non-fatal strangulation cases, you are saving lives and improving system responses to handling non-fatal strangulation cases for years to come. Thank you for helping us ensure that Casondra Stewart, Tamara Smith, and many others did not die in vain. We must all now become passionate allies in the higher calling of homicide prevention through the aggressive and relentless struggle to identify non-fatal strangulation cases, investigate them properly, and prosecute them successfully.

ABOUT THE AUTHORS

Gael B. Strack *is the chief executive officer and co-founder of Alliance for HOPE International and oversees the Training Institute on Strangulation Prevention. In her spare time, she is an adjunct professor at California Western School of Law teaching a class on Domestic Violence and the Law. She is a nationally recognized expert on domestic violence, including strangulation, prosecution, and family justice centers. Prior to her current position, she served as the first director of the San Diego Family Justice Center, an assistant city attorney, a deputy public defender, and a deputy county counsel.*

Casey Gwinn *is the president and co-founder of Alliance for HOPE International. The Alliance has five major programs: The Family Justice Center Alliance, The Training Institute on Strangulation Prevention, Camp Hope America, VOICES, and the Justice Legal Network. Casey is the visionary behind the family justice center movement, first proposing the concept in 1989. He is also the founder of Camp Hope America, the first camping and mentoring program in the country for children impacted by domestic violence. Casey is a national expert on domestic violence, the impact of childhood trauma, and the science of hope. Prior to his current position, he was the elected San Diego City Attorney and served as a California prosecutor for 20 years.*

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