



**Strangulation: The Last Warning Shot  
Part I: History, Need, Lethality & Medical**

Gael Strack, Esq., CEO Alliance for HOPE International

**Gael Strack, J.D.  
CEO and Co-Founder**



- “Our study proved it – most victims of strangulation will not have visible external injuries. The lack of injuries and the lack of training caused the criminal justice system to minimize strangulation. We failed victims. But now we know – it’s lethal. There are serious immediate and long-term health consequences.”

**In Memory of Casondra and Tamara**



**Casey Gwinn, Esq., President**



- “The most dangerous domestic violence offenders strangle their victims. The most violent rapists strangle their victims. We used to think all abusers were equal. They are not. Our research has now made clear that when a man puts his hands around a woman, he has just raised his hand and said, “I’m a killer.” They are more likely to kill police officers, to kill children, and to later kill their partners. So, when you hear “He choked me”, now we know you are the edge of a homicide.”

**Craig Kingsbury  
Police Chief of  
Twinfalls, Idaho**

The link to officer safety



**2013 Treasure Valley (ID) Study**

- Evaluated ten officer-involved critical incidents where officer shot a suspect or suspect shot an officer
- 80% of suspects with domestic violence history
- Non-fatal strangulation history in 30%
- Based only on public records history
- More research needed
- We all should be looking for it/tracking it

### Riverside County District Attorney's Office 2013 Study by Gerald Fineman, J.D.

- Law enforcement officers killed in the line of duty
- 1993-2013
- 50% of officers were killed by a criminal suspect with a public records act history of strangulation assault against a woman in a prior relationship

### And we honor so many...



### A review of Officers killed in 2017

33 out of 43 (76%) had been intentionally killed by a male suspect with a history of IPV and strangulation – public records search only

### Mass Killings have a connection to IPV and strangulation



- Mohamed Lahouaiej Bouhlel – 80 killed in Nice – criminal history of DV (2016)
- Omar Mateen – 49 killed in Orlando, 53 injured. Ex-wife was strangled. (2016)
- Robert Lewis Dear – killed 3, wounded 9 at Colorado Springs Planned Parenthood. History of DV with 2 ex-wives; Arrest for Rape (2015)
- NYMag.com, July 15, 2016

### 2016 Findings:

Ranking	State	Number of Female Homicide Victims	Homicide Rate per 100,000 Females
1	Alaska	12	3.40
2	Louisiana	56	2.42
3	Nevada	29	1.98
4	Arkansas	30	1.97
5	Tennessee	65	1.91
6	South Carolina	48	1.88
7	Missouri	57	1.84
8	Delaware	9	1.83
9	Kentucky	38	1.69
10	Maryland	49	1.58

**AGE AND RACE OF FEMALE HOMICIDE VICTIMS**  
In 2016, for single female victim/single male offender homicides where the age of the victim was reported (1,765 homicides), seven percent of the victims were younger than 18 years old (124 victims) and 10 percent were 65 years of age or older (174 victims). The average age of female homicide victims was 40 years old.

### Violence Policy Center

- Most women are killed by someone they know and most likely with a gun.
  - 393 women killed with a gun
  - 3 out of 4 were handguns
- Large majority of victims of strangulation who are later murdered are killed with a legally poss handgun.



## The Last Warning Shot

- In a study of 494 women who came into Chicago hospitals and clinics for any reason and who said they had experienced IPV in the past year, **47.3% had experienced at least once incident in the past year in which her partner had tried to choke or strangle her** – Glass 2008
- “There was no difference between women who were not killed and the women who were killed in having experienced prior choking or strangulation”

## Intimate Partner Homicide: New Insights for Understanding Lethality and Risks

- Sheehan, Murpy, Moynihan, Dudley-Fennessey & Stapelton, Violence Against Women, 2015
- Study out of Old Dominion University and the University of New Hampshire
- Interviewed families/friends of 14 homicide victims, reviewed police reports, news releases
- Identified acute risk factors (static/acute):
  - Changes in the perpetrators’ behavior (escalating)
  - Perpetrator’s perceived loss of control
  - **Barriers victims faced when accessing services**

## Acute Risk Factors

- Recent stalking
- Change in custody
- Victim’s decision to leave
- Recent serious incident of physical abuse that resulted in calling the police
- **Non-fatal strangulation assault immediately prior to the homicide**
- Perpetrator’s cancellation of meeting with divorce attorney
- Confrontation with the victim about perceived affair
- Perpetrator’s communication of a threat to a third party

## American Journal of Public Health Study of DV & Guns

- DV offenders with firearms are **5-8 times more likely to kill** their partners than those without, and nearly **8 times more likely to use firearms in threats**.
- 665 firearms were recovered from 164 people in San Mateo and Butte counties in California.
- The new screening protocol worked in improving the process for retrieving weapons from DV offenders. No reports of injury or death.
- UC Davis article: <http://www.ucdmc.ucdavis.edu/publist/news/newsroom/8529>
- Link to journal: <http://ajph.aphapublications.org/doi/abs/10.2105/AJPH.2013.301484>

## Congratulations to San Mateo County (CA)!

Domestic Violence Firearms Compliance Program Protocol



- Love it!
- DV Firearm Compliance Unit
- Seize, Store and Destroy
- Training
- Research

## It works.



- In states that simply banned gun possession, the gun-related intimate-partner homicide rate did not drop by a statistically significant amount.
- But in those that required offenders to surrender their guns, that rate dropped by a full 14%.
- This drove the overall intimate-partner homicide rate down by 9.7% — which indicated that the laws really did seem to have a significant effect. Would-be offenders weren’t simply resorting to other means of killing now that they did not have a gun.
- “This is actually saving people’s lives,” Siegel said.

# Understanding Lethality

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## Let's take a closer look at your risk assessment tool.

	YES	NO	NO ANSWER
1. HAS THE OFFENDER EVER USED OR THREATENED TO USE A WEAPON AGAINST YOU, YOUR CHILDREN, OR SOMEONE YOU CARE ABOUT?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. HAS THE OFFENDER THREATENED TO KILL YOU, YOUR CHILDREN, OR SOMEONE YOU CARE ABOUT?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. HAS THE OFFENDER EVER TRIED TO CHOKE YOU?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. CAN THE OFFENDER OBTAIN A GUN EASILY?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. HAS THE OFFENDER EVER PREVENTED YOU FROM LEAVING, SEEKING ASSISTANCE, OR CALLING THE POLICE?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. IS THE OFFENDER VIOLENTLY OR CONSTANTLY JEALOUS?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. DOES THE OFFENDER CONTROL MOST OF YOUR DAILY ACTIVITIES?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. HAVE YOU LEFT THE OFFENDER OR SEPARATED DUE TO DOMESTIC VIOLENCE OR ABUSE AFTER LIVING TOGETHER OR BEING MARRIED?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. HAS THE OFFENDER EXPERIENCED RECENT CHANGES THAT CAUSED MORE STRESS?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. HAS THE OFFENDER TRIED OR THREATENED TO COMMIT SUICIDE?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. DO YOU HAVE A CHILD THAT IS NOT THE OFFENDER'S?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. HAS THE OFFENDER FOLLOWED, THREATENED OR MADE UNANNOUNCED VISITS TO YOUR HOMEPLACE, SCHOOL, OR OTHER LOCATION?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13. DO YOU KNOW IF THERE IS A COURT ORDER AGAINST THE OFFENDER?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

UNDERSTAND THAT BY SIGNING THIS FORM I AUTHORIZE THE CHICAGO POLICE DEPARTMENT TO PROVIDE MY DOMESTIC VIOLENCE ASSESSMENT INFORMATION TO FAMILY MEMBERS ON THE ALMOND DOMESTIC VIOLENCE HOTLINE AND PROVIDE SUPPORT SERVICES TO VICTIMS OF DOMESTIC VIOLENCE AND THAT THEY MAY CONTACT ME.

SIGNATURE \_\_\_\_\_ DATE \_\_\_\_\_  REFUSED  VICTIM'S INITIALS \_\_\_\_\_

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## Case Western Report, Cleveland, Ohio Study (May 2018)

- Study of DA 11
- Cleveland High Risk Team – Homicide Prevention Initiative
- 45% were at high risk
  - 88% were strangled
  - 88% had been threatened with murder
  - 89% believed their abuser was capable of killing them

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The Journal of Emergency Medicine, Vol. 35, No. 3, pp. 329-335, 2008  
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0736-4670/8 \$-see front matter

doi:10.1016/j.jemermed.2007.02.065

### Violence: Recognition, Management and Prevention

#### NON-FATAL STRANGULATION IS AN IMPORTANT RISK FACTOR FOR HOMICIDE OF WOMEN

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||Paper Address: Nancy Glass, PhD, MPH, RN, School of Nursing, Johns Hopkins University, 525 N. White Street, Room 439, Baltimore, MD 21205.

Abstract—The purpose of this study was to examine non-fatal strangulation by an intimate partner as a risk factor for major assault, or attempted or completed homicide of women. A case control design was used to describe non-fatal strangulation among complete homicides and attempted homicides (n = 186) and assault controls (n = 427). Interviews of proxy respondents and survivors of attempted

Keywords—intimate partner violence; strangulation; risk of homicide

INTRODUCTION

The 1993 National Mortality Followback Survey of

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- **Victims of prior strangulation are 750% more likely of becoming a homicide victim.**
- **(Glass, et al, 2008).**

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## Training Institute on Strangulation Prevention



- Project of Alliance for HOPE International
- Launched October 2011 by USDOJ, Office on Violence Against Women
- Most comprehensive training program in the U.S.
- Fee-based Training for All Professionals

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How to access our materials in dropbox:

<https://bit.ly/LastWarningShot>

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Agenda:

- The Law
- San Diego Study - Findings from 300 Surviving Victim Strangulation Cases
- Medical Perspective - When They Survive
- The Investigation
- The Defenses
- Advocacy
- Implementation
- Resources
- Inspirations from Around the World

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What is the Law?

What evidence do you need to prove strangulation or suffocation?

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Congratulations to 47 States who have passed felony strangulation Laws –

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v.6.16.18-0

## VAWA 2013

- Gave tribal governments jurisdiction to prosecute non-natives for DV.
- Made strangulation/suffocation a felony.
- Strangulation is defined as "intentionally knowing, or recklessly impeding the normal breathing or circulation of the blood of a person by applying pressure to the throat or neck, **regardless of whether that conduct results in any visible injury or whether there is any intent to kill or protractedly injure the victim**"

## Federal Sentencing Guidelines

- "Comment and testimony that the Commission received indicated that strangulation and suffocation in the domestic violence context is serious conduct that **warrants enhanced punishment** regardless of whether it results in a provable injury that would lead to a bodily injury enhancement; **this conduct harms victims physically and psychologically** and can be a predictor of future serious or lethal violence.
- 79FR25996, doc No. 2014-10264

## Federal 18 USC 113 – VAWA 2013

- TITLE 18 USC § 113
- **ASSAULT WITHIN MARITIME AND TERRITORIAL JURISDICTION**
- (a) Whoever, within the special maritime and territorial jurisdiction of the United States, is guilty of an assault shall be punished as follows:
- (8) Assault of a spouse, intimate partner, or dating partner by strangling, suffocating, or attempting to strangle or suffocate, by a fine under this title, imprisonment for not more than **10 years**, or both.

## Dean's Law



- Signed into law August 2018 by President Trump
- John S McClain National Defense Authorization Act 2019
- Effective Jan 1, 2019
- Adds strangulation and suffocation to the Uniform Code of Military Justice

## Other laws:

- States added Chest/Torso:
  - Mississippi (2010), Indiana (2017), Kansas (2017), Utah for child abuse (2017) and Oregon (2018)
- Tribal
  - Colville Confederated Tribe (2013), Cherokee Nation, OK (2014) and Yavapai-Apache Nation (2016) – Plus 20
- Territories
  - Virgin Islands (2010) and Guam (2016)
- Bail
  - Ohio (Amy's Law 2006), Illinois (2009, Diane's Law, 2014), Louisiana (Gwen's Law) and Pennsylvania (Tierre's Law, 2018)
- Sentencing
  - Idaho (2018)

## Favorites

## Favorite Statutes

- Virginia's no-bail presumption for individuals arrested for strangulation
  - [Virginia No-Bail Presumption](#)
- Ohio's comprehensive bail statute that allows judges to consider a long list of important factors including the seriousness of strangulation
  - [Ohio Bail Statute](#)
- Wisconsin's statute that defines petechia as a form of substantial bodily harm
  - [Wisconsin Petechia Statute](#)
- Mississippi's statute that includes positional asphyxia by defining strangulation to include restricting the flow of oxygen or blood by intentionally applying pressure on the neck, throat or chest of another person by any means or to intentionally block the nose or mouth of another person by any means."
  - [Mississippi Statute on Chest Pressure](#)
- Massachusetts' strangulation law protects pregnant victims and victims with protection orders with a penalty of up to 10 years in prison
  - [Massachusetts Statute on Pregnant Victims and Protection Orders](#)
- VAWA 2013 under 18 USC 113 requires no injury for a conviction for strangulation and/or suffocation and provides for a 10-year maximum sentence
  - [VAWA Strangulation/Suffocation Statute](#)
- California's newest strangulation bill will require law enforcement officers to give victims a warning about the seriousness of non-fatal strangulation assaults
  - [California Strangulation Warning Law](#)

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## SB40 (Roth) enrolled 9-1-17

- **DUTY TO WARN:** New law requires a statement informing the victim that strangulation may cause internal injuries and encouraging the victim to seek medical attention.
- **DUTY TO TRACK:** New law requires documenting when the incident involves strangulation or suffocation.

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## Draft advisal from law enforcement:

- *"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 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."*

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## International

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## Australia

- New South Wales, Queensland, Tasmania, the Australian Capital Territory (ACT) and the Northern Territory have all long had offences specific to strangulation similar to that in the United Kingdom—it is an offence to choke, suffocate or strangle a person in any circumstances with the intent to commit a separate indictable offence.
- Despite this, in 2014, New South Wales amended its Crimes Act to include a simple offence of strangulation without the requirement to prove the intent to commit another offence, as follows:
- Choking, suffocation and strangulation
- A person is guilty of an offence if the person: intentionally chokes, suffocates or strangles another person so as to render the other person unconscious, insensible or incapable of resistance, and is reckless as to rendering the other person unconscious, insensible or incapable of resistance.
- Maximum penalty: imprisonment for 10 years.
- A person is guilty of an offence if the person:
- chokes, suffocates or strangles another person so as to render the other person unconscious, insensible or incapable of resistance, and does so with the intention of enabling himself or herself to commit, or assisting any other person to commit, another indictable offence.
- Maximum penalty: imprisonment for 25 years.

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## Australia

- In this section: another indictable offence means an indictable offence other than an offence against this section.
- In late September 2015, the ACT Attorney-General introduced the Crimes (Domestic and Family Violence) Amendment Bill 2015, which, if enacted, will amend the existing offence of an "act endangering health" in section 28 of the Crimes Act 1900 (ACT) to provide that
  - "a person who intentionally and unlawfully chokes, suffocates or strangles another person is guilty of an act endangering health".
  - That offence is not restricted to family violence circumstances and carries a maximum penalty of five years' imprisonment.

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## Canada

- In 2006, following several states in the United States enacting specific strangulation offences, the Uniform Law Conference of Canada established a working group to examine the feasibility of a distinct offence of strangulation and whether existing provisions adequately address the seriousness and significance of that specific conduct.
- That group concluded that the existing provisions of the Criminal Code were adequate to address the issue of strangulation, and while a discrete offence may help to document a prior history of strangulation, that alone did not justify the creation of a new offence.
- The group also found that, while there was evidence that strangulation serves as a marker for increased risk of future violence, that proposition was not without controversy.
- In reaching its conclusion, the working group found that strangulation that did not result in physical evidence of harm could nonetheless be prosecuted as an aggravated assault that "endangered the life" of the victim.

## Canada

- Under the Canadian Criminal Code, the offence of aggravated assault is:
- Every one commits an aggravated assault who wounds, maims, disfigures or endangers the life of the complainant.
- This offence carries a maximum penalty of 14 years' imprisonment (longer than many of the specific offences in the United States), and an attempted aggravated assault carries seven years.
- The working group found that the medical literature supports the contention that strangulation will endanger the life of the victim and, as such, that offence provides an adequate response to the issue.

## The United Kingdom

- The United Kingdom has long had an offence of "attempting to choke, suffocate or strangle in order to commit an indictable offence". The offence applies in all circumstances, not just family violence.
- In November 2015, the Law Commission (of England and Wales) published a Report examining the Offences against the Person Act 1861 (UK).
- That Report concluded that the offence of attempting to choke was needlessly specific and that behavior prosecuted under that offence could generally be prosecuted under other offences.
- Consequently, it recommended that the offence be abolished without replacement. The Report did not address a specific offence of strangulation in the context of family violence.

## Passing a law is easier than implementing it

We need leaders!

## Making New Friends



## This work is about relationships. We need each other.

Non-fatal strangulation has been a neglected area in the legal, medical and research fields. We are still learning! We need to work together to advanced our knowledge, promote victim safety and offender accountability.

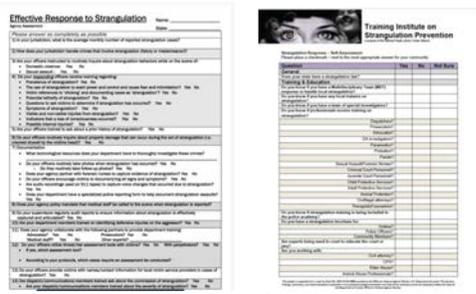
### Let's make new friends:

- Find someone you don't know
- What do they do?
- Why are they here?
- What do they want to learn?
- What's their goal from this training?

### Today, think about your response to strangulation assaults.

- What's happening?
  - Arrests being made?
  - Quality of the investigations?
  - Cases being prosecuted?
  - Any problems with "consent"?
  - Sentences reflect the crime?
  - Victims understanding medical consequences?
  - Offenders receiving adequate supervision?
  - Increased awareness about the seriousness of strangulation?

### Two self-assessment tools:

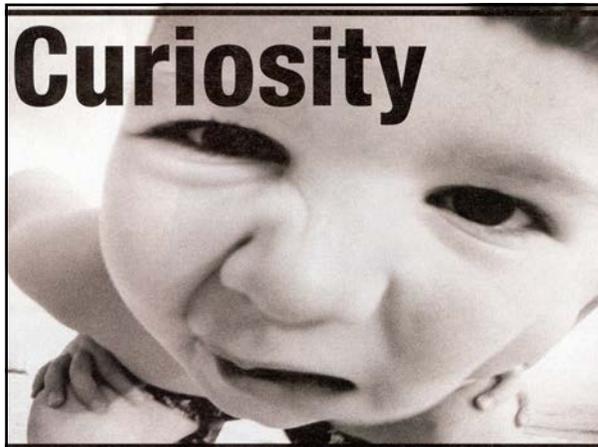


The image shows two forms from the Training Institute on Strangulation Prevention. The first form is titled 'Effective Response to Strangulation' and contains a list of 15 numbered questions for self-assessment. The second form is titled 'Strangulation Prevention' and is a checklist with columns for 'Yes', 'No', and 'N/A'.

### Going forward – Lots of Exciting Things Happening Around the World

But before we can forward, it's important to understand our history. It may be your community now.

### In Memory of Casondra Stewart and Tamara Smith



## Minimization System wide

- Dispatchers
- Police
- Investigators
- Prosecutors
- Court
- Probation
- Victims
- Offenders



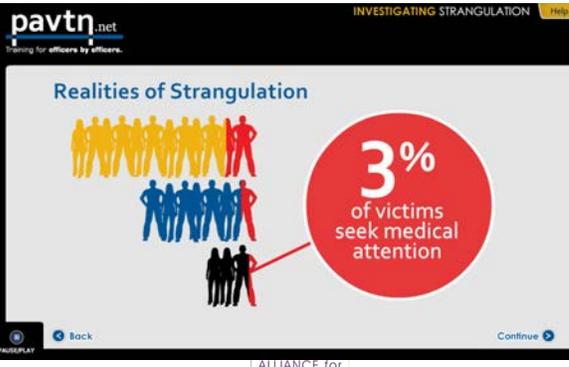

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## What we learned when we analyzed 300 police reports

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## Signs and Symptoms Documented in San Diego Police Reports

- Redness to neck
- Scratch marks
- Rope burns
- Thumb print bruising
- Red eyes
- Spasm
- Urination & defecation
- Pain to neck/throat
- Coughing
- Raspy voice
- Nausea or vomiting
- Unconsciousness
- Ears ringing
- Head rush
- Miscarriage

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## Dr. Dean Hawley, Forensic Pathologist, Professor University of Indiana Medical School

- "Fatal strangulation can occur without any external evidence of violence on the human body."
- "The best way to document a strangulation case is still by an autopsy"



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## Manual Strangulation - Most Common Method Used



- Method is important
- Explains why there is likely no injury
- Single incident may show intent to injury or control
- Multiple strangulations may show intent to kill
- Use of a ligature is recognized as a method of "finishing it" or overkill

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## Police Carotid Restraint (Sleeper Hold, Chokehold)



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## Carotid Restraint: Prohibited or Restricted by Many Police Departments Nationwide

- Many police agencies do not allow officers to use carotid restraint.
  - SDPD: No more than 30 seconds (7/92)
  - POST: First aid protocol.
    - "... subject should be checked by medical personnel"



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## Positional Asphyxia <http://www.inthesetimes.com>



Video stills of police killing Eric Garner on July 17, 2014. (AP/Chris Wedel)

Reuters • January 14, 2015

### Why Eric Garner Couldn't Breathe

The incident is only half the story of homicidal violence.

By James J. O'Neil

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U.S. Department of Justice  
Office of Justice Programs  
National Institute of Justice



## National Law Enforcement Technology Center BULLETIN

June 1995

A National Institute of Justice Program

### Positional Asphyxia—Sudden Death

Major portions of this bulletin are drawn from a report prepared by the International Association of Chiefs of Police for the National Institute of Justice (NIJ), based on research conducted by Dr. Charles S. Petty, Professor of Forensic Pathology, University of Texas, and Dr. Edward J. McDonough, Deputy Chief Medical Examiner, State of Connecticut, and reviewed by the Less-Than-Lethal Liability Task Group.

Police, sheriffs, and correctional officers have a limited and largely inadequate set of tools to use to safely subdue violent and combative subjects. Through NIJ's

cases involving positional asphyxia is also included. Through officer awareness and resultant action, it is anticipated that deaths attributable to this cause will be

■ Unresponsiveness of subject during or immediately after a struggle. Such unresponsive behavior may indicate cardiovascular arrest and

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## The San Diego Study

Ultimately published in the Journal of Emergency Medicine in 2001

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### Journal of Emergency Medicine in 2001 Published Six Articles on Strangulation

- 1 – Walking and Talking Victims
- 2 – Survey Results of Strangled Women
- 3 – Review of 300 Cases – Legal Issues
- 4 – Review of 300 Cases – Clinical Eval
- 5 – Review of 300 Cases – Fatal Cases
- 6 – Effect of Multiple Strangulation Attacks

### Walking & Talking Victims Dr. Taliaferro

- Previously thought that most victims “sustain immediate fatal asphyxiation, brain anoxia or cardiac arrest and are usually examined by a forensic pathologist”
- Only in the last decade that physicians working in IPV have begun to realize that surviving manual strangulation is much more common

### Walking & Talking Victims

- All patients with a history of strangulation should be monitored in an intensive care setting for at least 24 h.
- Many “walking and talking” strangled victims are underreported in the legal and medical literature and their history of strangulation, when it is reported, is often discounted and ignored.

### Survey Results of Strangled Women – Dr. Wilbur

- Three locations: Parkland Health, Shelter in Dallas and Shelter in LA
- Strangulation occurred 3.1 years into rel.
- **87% had been threatened with death**
- 88% experience other types of abuse
- **70% thought they were going to die**
- 24% of the abuser had a history of strangulation in prior relationship

### Survey Results of Strangled Women – Dr. Wilbur

- 39% incident witnessed by friends/family
- 49% sought protection order
- 13% were strangled after the order
- 29% sought medical help after being strangled
- 5% required hospitalization for respiratory distress and upper left extremity paralysis
- Physical manifestations appeared within two weeks of the incident

### Review of 300 Cases - Strack

- **Casey Gwinn asked: What evidence can be obtained to prove that a surviving victim had been strangled – even when the victim recants?**
- 99% of the suspects were male
- 97% victims were manually strangled
- 41% children witnessed (50% present)
- 89% had a history of violence

## Review of 300 Cases - Strack

- 50% of victims had no visible injury
- Another 35% had injuries too minor to photograph
- Only 15% had a photograph of an injury sufficient to be used in court
- **MOST VICTIMS DID NOT HAVE EVIDENCE OF VISIBLE EXTERNAL INJURY**
- Most victims at high risk of future violence
- We had no training. No idea what to look for, ask or collect.

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## Effect of Multiple Strangulation Attacks – Dr. Smith

- Most victims suffer injuries to the neck, throat and face
- **Many victims present with no visible signs of injury, yet may have fractures of the hyoid bone, larynx, tracheal rings, carotid tears and occlusions.**
- Many victims complain of pain, swelling and voice changes.

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## Effect of Multiple Strangulation Attacks – Dr. Smith

- **Swelling to the neck develops within 24 to 48 h** of the attack and has the potential for lethality because of occlusion of the airways
- Traumatic injuries to the neck can result in carotid dissections and occlusions
- **Frequency of these problems is significantly increased in victim that survives multiple strangulation attacks**

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## New Bibliography

- Created in partnership with BOISE State, Alliance for HOPE International, our Medical Advisors and good friend Dr. Annie Lewis-O'Connor



### Strangulation Bibliography 2016

The Institute on Strangulation Prevention would like to thank the following people for their contributions to this bibliography: Dr. Dean Hawley, Dr. George McClane, Dr. Ellen Talaferro, Dr. William Green, Dr. Ralph Rivello, Dr. William Smock, Dr. Michael Weaver and Dr. Annie Lewis-O'Connor. The Institute also thanks the Boise State University School of Nursing for their collaboration on this project, especially Associate Professor Max Veltman and Michael Gerritsen. A special thank you to Rebecca Lovelace for making our collaboration possible.

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## Minimization by Victims

Let's listen in...

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## Minimization by Victims

- Victims may not understand the danger and maybe reluctant to seek medical attention.
- "He didn't really choke me, he just had me in a headlock and I couldn't breathe."
  - Plattsburgh, NY
  - Santa Clara County policy is to roll out the paramedics on each case



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## Minimization by Professionals

- Dispatch operators may not realize the danger and trivialize the violence.
- POST



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## DV calls caused dispatchers the most fear (95.3%) & caused the most stress

National Center on Domestic Violence, Trauma & Mental Health

National Public Safety Telecommunicator Week is April 9-15, 2017.

Center Quarterly (First Edition, Fall 2012)

*911 Dispatchers Frequently Experience Emotional Distress in Response to Domestic Violence Calls, A Recent Study Reports*

A recent study published in the *Journal of Traumatic Stress* examines the frequency with which 911 telecommunicators experience emotional distress in response to emergency calls as well as symptoms of Post-Traumatic Stress Disorder (PTSD).

Participants in the study were asked whether they had received certain types of calls and whether they had experienced fear, helplessness, or horror in reaction to the calls. Domestic violence calls were among the most common type of call received with nearly all (95.3%) survey respondents reporting that they had received these calls and more than one-third (38.6%) of respondents reporting that they experienced feelings of fear, helplessness, or horror while responding to domestic violence calls.

How about honoring them with a proclamation with the city council or county board of supervisors?

And then offer them training on strangulation?

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## First Responders Chapter: The Critical Role of Dispatchers in Non-Fatal Strangulation Cases



- Discusses the importance of 911 tapes and their use in successful cases
- Provides information on vicarious trauma with links to the IACP Vicarious Trauma Toolkit
- Describes signs and symptoms of strangulation and questions for dispatchers to use with 911 callers
- Features resources for dispatchers including the strangulation assessment card
- Spotlights in house dispatcher, Irma Young from Marksville City Police Department and her 43 years of service

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## Let's put strangulation into context

- Power & Control
- Lethality
- Link to other crimes

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## Continuum of Violence



Slap → Punch → Kicks → Weapons → Strangle

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## Strangulation is about Power & Control



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## Strangulation is terrorizing

- Like drowning, "The panic is mixed with an odd incredulity that this is actually happening. Having never done it before, the body – and the mind – do not know how to die gracefully. The process is filled with desperation and awkwardness."
  - (Banzett, Lansing, Evans, & Shea, 1996.)
- Nonfatal strangulation might well be the equivalent of **water boarding**, widely considered as **torture**. Both leave few marks, both can result in loss of consciousness, both are used to assert dominance and authority over the life of the other, both create intense fear and potentially result in death and both can be used repeatedly, often with impunity.
  - NFS, a Human Rights Issue; Sorrenson, Joshi and Sivitz 2014

## Senator Hayward at Senate Hearing for SB1562 – February 2018



Power & Control Wheel with Wisconsin State Statutes



The following crimes might fit any of the behaviors listed on the wheel:

- Chapter 893 Statute on a restraining order
- Chapter 895 Statute on a protective order
- Chapter 896 Statute on a protective order
- Chapter 897 Statute on a protective order
- Chapter 898 Statute on a protective order
- Chapter 899 Statute on a protective order
- Chapter 900 Statute on a protective order
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- Chapter 911 Statute on a protective order
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- Chapter 999 Statute on a protective order
- Chapter 1000 Statute on a protective order

## Prevalence

## Of all DV Cases:

- Ramsey County, Minnesota benchmarked strangulation cases before and after the new strangulation law in 2005
  - Before the strangulation law: 15%
  - After the strangulation law: 30%
- Survival or Suffocation: Can Minnesota's New Strangulation Law Overcome Implicit Biases in the Justice System? (2007) 25 Law & Ineq. 253 by Archana Nath
- Pritchard (2016) – Florida Study of 591 DV cases – strangulation identified in 12%; potentially 17%

## A Comparison of Intimate Partner Violence Strangulation and Injury between Same-Sex and Different-Sex Couples (Messing, Thomas and Ward-Lasher, ASU) - Pending

- Studied 19,429 police reports over 2-year period from a single police department.
- Strangulation was documented in 7.4% (n=1,438) of all IP-DV cases, and in 5.2% (n=75) of IP-DV among same-sex couples.
- Strangulation was reported significantly more often in different-sex (9.8%) than in female and male same-sex couple cases (5.2% and 5.3%, respectively);
- Injury, however, was reported more frequently in same-sex than in different-sex couples.
- Couple configuration, coercive control, and injury significantly predict strangulation.
- Findings suggest that nonfatal strangulation occurs within at least a minority of same-sex couples, and that under-detection by law enforcement may make it appear less common than it actually is.

## Prevalence – Domestic Violence & Strangulation

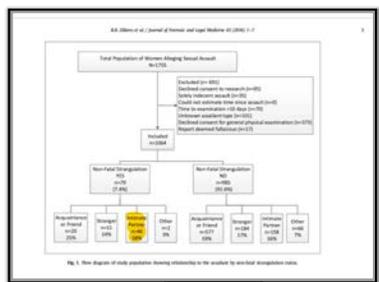
- 79% - Oklahoma Study
- 68% - Wilbur Study
- 62% - New Orleans FJC & Tarrant County FJC
- 71% - 2014 Study – Police Departments' Use of the Lethality Assessment Program: A Quasi-Experimental Evaluation



## Prevalence – Sexual Assault & NFS

- 58% - Zilkens (2015) IPV & SA
- 44% – Gill (2013) – Homicide cases
- 35% - Plattner (2005)
- 15% - Green (2013)
- 18% - TRO Study (2014)
- 16% - New Orleans FJC (2015)
- 12% - Mcquown (2016)
- Given the variation in these statistics, we need more research to find out the true prevalence which can only be done with more consistent and reliable statistics.

## Non-Fatal Strangulation in Sexual Assault Zilkens, Phillips, Kelly, Mukhtar, Semmens, 2016



## Sexual Assault & Injuries: 1153 women Zilkens, Smith, Kelly, Mukhtar, Semmens, Phillips (2017)

Table 4  
Frequency of types of physical assault reported by 1153 sexually assaulted women and assault type

	n	Mean (SD)	$\chi^2$	p-Value <sup>a</sup>	n	Mean (SD)	$\chi^2$	p-Value <sup>a</sup>	n	Mean (SD)	$\chi^2$	p-Value <sup>a</sup>
Assault type												
Stranger	195	11 (5.6)	81	<.001	1	0.0	24	<.001	94	20.0	149.2	<.001
Accidental acquaintance	222	8 (3.6)	46	<.001	8	13.0	30	<.001	78	15.5	175.5	<.001
Friend/Acquaintance	376	12 (3.2)	304	<.001	39	13.0	20	<.001	119	13.0	131.0	<.001
Unknown (no memory)	100	0 (0.0)	2	0.16	0	0.0	1	0.32	5	5.0	1.0	0.32
Other	68	2 (2.9)	24	<.001	2	2.0	4	0.05	25	16.0	140.0	<.001
All women	1153	7.9 (6.8)	463	<.001	48	14.2	82	<.001	467	14.2	148.2	<.001

<sup>a</sup>  $\chi^2$  Chi-square test of proportions.  
<sup>b</sup> Best force includes a history of being punched, kicked, slapped, dragged, stomped, hit, pushed, knuckled, beaten, pulled hair.  
<sup>c</sup> Any physical assault includes non-fatal strangulation, throat force, before and/or reported weapon use.

## Link to other crimes

- Child Abuse
- Elder Abuse
- Sexual Assault
- Animal abuse

## Summary

- Strangulation is THE LAST WARNING SHOT.
- Victims are 750% more likely to be killed.
- Men who strangle women are linked to shooting and kill police officers and now mass shootings
- We need to take the guns away from certain individuals. It's our last opportunity.
- We all have a duty to warn victims and hold stranglers accountable for the crimes they commit.
- We need leaders. We need to work together
- We have made great progress, but we can still do more to improve our response.



## The Results

- Our police reports have turned into de facto medical reports.
- We've learned how to prosecute strangulation cases without injury.
- We've passed new laws, change protocols and developed strangulation response teams
- We treat strangulation cases seriously.
- It's making a difference.


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## Identifying the Signs and Symptoms of Strangulation Assaults

Medical 1


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## Definition

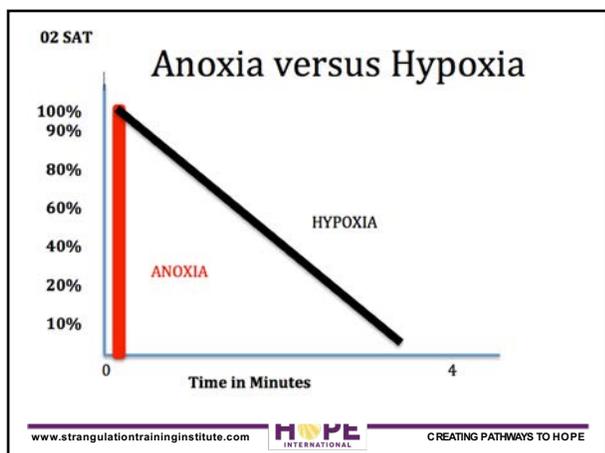
- Strangulation is a form of asphyxia characterized by closure of the blood vessels and/or air passages of the neck as a result of external pressure on the neck


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## Key Terms

- Hypoxia (hy-pox-i-a):
  - Deficiency in the amount of oxygen reaching the tissue.
- Anoxia (a-nak-se-a):
  - Absence of oxygen supply to tissue
- Asphyxia (as-phyx-i-a):
  - A condition arising when the body is deprived of oxygen causing unconsciousness or death; suffocation.


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## Strangulation is not "CHOKING"


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## The Choking Game

Since January 2006, when this woman's son (Alex age 13) died, the strand of beads has grown to 645 beads, more than 23 feet in length. She doesn't need to add any more.  
www.salon.com

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## Suffocation

- Obstructing oxygen from getting into the lungs
- Sealing off the mouth and nose by manual compression
- Duct tape over face
- Head inside plastic bag
- Pillow over mouth and nose
- Sitting on chest

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## 2 Forms of Strangulation

- Ligature
- Manual



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## 3-2. Strangulation – Military Manual

- Strangulation is a most effective method of disabling an opponent. **The throat's vulnerability is widely known and should be a primary target in close-range fighting.**
- Your goal may be to break the opponent's neck, to crush his trachea, to block the air supply to his lungs, or to block the blood supply to his brain.

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## Trachea

- a. Strangulation by Crushing. **Crushing the trachea just below the voice box is probably one of the fastest, easiest, most lethal means of strangulation.** The trachea is crushed between the thumb and first two or three fingers.

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## Military - Air Flow

- b. Respiratory Strangulation. Compressing the windpipe to obstruct air flow to the lungs is most effectively applied by pressure on the cartilage of the windpipe. **Unconsciousness can take place within one to two minutes. However, the technique is not always effective on a strong opponent or an opponent with a large neck. It is better to block the blood supply to weaken the opponent first.**

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## Blood Flow

- c. Sanguineous Strangulation. Cutting off the blood supply to the brain by applying pressure to the carotid arteries results in rapid unconsciousness of the victim. The victim can be rendered **unconscious within 3 to 8 seconds, and death can result within 30 to 40 seconds.**

## ANATOMY

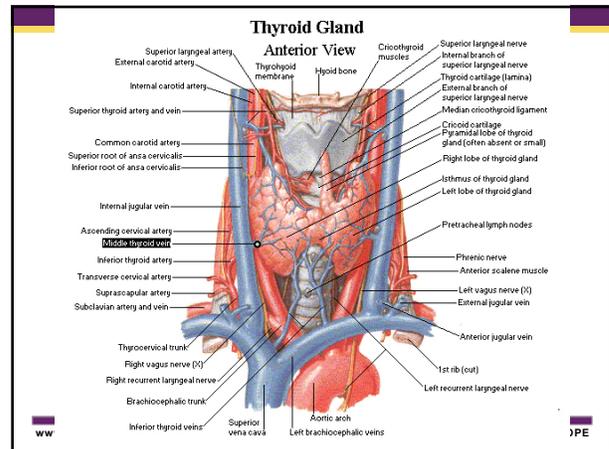
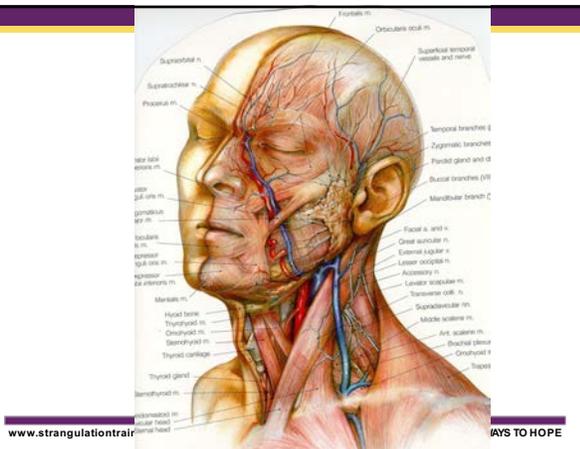
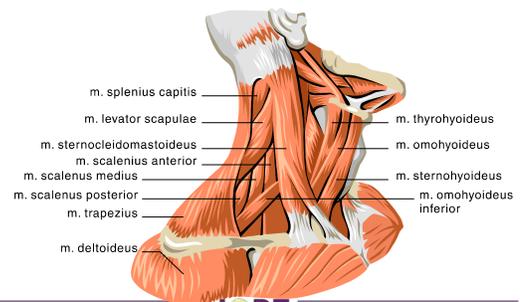


## 4 Important Structures

- Muscles
- Vessels
- Bones
- Cartilage



## Muscles



### VITAL NECK STRUCTURES

Arteries, Veins and Cartilage

- Carotid Artery
- Jugular Vein
- Hyoid Bone
- Thyroid Cartilage
- Cricoid Cartilage
- Tracheal Rings

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## How do you cause loss of consciousness?

Block blood flow or air flow or both

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## Vessel Occlusion

- **Carotid artery occlusion**
  - Lateral neck
  - 11 pounds of pressure
- **Jugular vein occlusion**
  - Lateral neck
  - 4.4 pounds of pressure

✓

UNCONSCIOUSNESS

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## Tracheal Occlusion

- Usually minor (if any) role in causing death (as opposed to fracture of the trachea)
- 33 pounds of pressure to completely occlude
- At least 33 pounds of pressure or more to fracture tracheal cartilage

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## Children

- "An important factor to consider after a strangulation assault in the pediatric patient is that because the cricoid cartilage is smaller and forms a complete ring around the trachea, mucosal edema at this site will severely compromise the airway."
  - Chapter 6, Strangulation in Children (Baldwin/Wiese)

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## How much pressure?

Usually continuous, increased and/or repeated pressure

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## Examples of Applied Pressure

- Handgun trigger pull: 6 psi
- Opening of soda can: 20 psi
- Adult male hand shake: 80-100 psi
- Maximum adult male hand shake: 160-180 psi
- Source: Dr. Bill Smock, Louisville
- Metro Police Department



## Hippocampus



- The hippocampus is critical for forming memory, organizing and storing.
- Hippocampus is most sensitive to lack of oxygen.
- If no blood flow, the brain is NOT working.
- No blood flow. No memory.
- No memory means damage to hippocampus.

## Hippocampus is not a hippo on campus



## How do you know how long it takes to cause LOC?

## Neurologic Insult to Brain

ACUTE ARREST OF CEREBRAL CIRCULATION  
IN MAN

LIEUTENANT RALPH ROSSEN (MC), U.S.N.R.\*

HERMAN KABAT, M.D., Ph.D.  
BETHESDA, MD.

AND  
JOHN P. ANDERSON  
RED WING, MINN.

Archives of Neurology and Psychiatry, 1944 Vol. 50, 5



### “Acute Arrest of Cerebral Circulation in Man”

- “Acute arrest of circulation in the human brain was studied in 11 schizophrenic patients and in 126 normal young male subjects (inmates)”
- More than 500 controlled strangulations
- “The neurons in the brain are the cells of the body most sensitive to anoxia.”

### How Long is Too Long?



- 6.8 seconds – unconscious (brain cells begin to die)
- Anoxic seizure (lasts 2-8 seconds)
- 15+ seconds – loss of bladder control
- 30+ seconds – loss of bowel control
- ?? seconds – point of no return: “brain dead”/coma
- 1 - 2.5 Minutes – death (no controlled human studies but videos of deaths)

### Post Strangulation Seizure: Anoxic Insult to Brain Cells



### Evidence of Alterations of Consciousness = Anoxic Injury

Brain Injury in Battered Women, Journal of Consulting and Clinical Psychology, 2003, Vol. 71, No. 4, 797-804

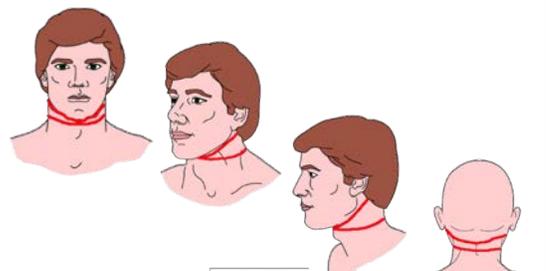
- A period of dizziness
- Felt stunned or disoriented
- Seen stars or spots (visual impairment)
- Loss of consciousness or blacked out
- Loss of memory
- Standing up one minute then waking up on the floor
- Change of location
- Bowel or bladder incontinence
- Unexplained bump on head

### Point of No Return

911 Tape Courtesy of Las Vegas Police Department

- As more brain cells die, the brain will have a difficult time to bounce back after oxygen deprivation due to continuous strangulation.
- Some brain tissue is more sensitive to the lack of oxygen: hippocampus, parieto-occipital lobe, thalamus,
- The brainstem and forebrain is more resistant
- No controlled human studies
- Video of hangings is best evidence

### ROPE BURNS Hanging vs. Ligature



### PHYSIOLOGICAL CONSEQUENCES OF STRANGULATION

Occlusion of Arterial Blood Flow: Seconds to Minutes Timeline

**0 min:** Arrested Occurrence of cardiac arrest

**6 min:** Brain is Reversibly Ischemic (Adult Male)

**10 min:** Brain is Reversibly Ischemic (Adult Male)

**15 min:** Loss of Brain Function

**30 min:** Loss of Brain Function

**60 min:** Death/Resuscitation begins (100% fatal, 100% fatal if 60 seconds)

**192 min:** Death/Resuscitation begins (100% fatal, 100% fatal if 192 seconds)

**References and Resources**

- Acute Ischemic Cerebral Circulation in Man. Lundmark Ralph Rosen 2007, D.S.N.R. Herman Kabat M.D., Ph.D. Bethesda, MD and John P. Anderson Reed Wing, M.D., Archives of Neurology and Psychiatry, 1944, Volume 53, 85.
- Almy Sakavagranu, MD, MSc; Roman Lintares, MD; David King, MD; Graham Dowling, MD; Sam Andrews, MD; Sean Kelly, MD; Corina Andrus, MD; Jason Flynn Dugg, PhD; and James A. Garrity, MD, MPH for the Training Group on Human Aggression, Forensic Med Pathol 2011;32: 104 - 107
- Training Institute on Strangulation Prevention: [www.strangulationtraininginstitute.com](http://www.strangulationtraininginstitute.com)

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# Brain Death by Air Flow

## 4 Minutes

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# Signs & Symptoms

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## Signs & Symptoms

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### “Survey Results of Women Who Have Been Strangled While in an Abusive Relationship”

- Medical symptoms experienced by victims**
  - Difficulty breathing: 85%
  - Scratches on neck: 44%
  - Dysphagia: 44%
  - Voice change: 45%
  - Loss of consciousness: 17%
  - Ptosis: 20%**
  - Facial palsy: 10%**
  - L or R sided weakness: 18%**
  - Memory deficit: 31%
  - Suicidal ideation: 31%

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### Neck swelling (edema): Laryngeal fracture - (subcutaneous emphysema)



Courtesy of DDA Derrick Ewin and Ian McIvor from Contra Costa County

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### Internal/External Signs

- Coughing up blood (hemoptysis)
- Lung (pulmonary) damage
  - Pulmonary edema
  - Aspiration pneumonitis
  - Pneumonia



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### Internal/External Signs

- Miscarriage (spontaneous abortion)
  - Anecdotally reported
  - Hours or days later



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Abrasions: Under chin – due to instinctual chin lowering

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### Scratches



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Scratches



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### Claw marks



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## NECK LESIONS - II

- Red marks (erythema)
- Bruising (ecchymoses)
- Finger outline impressions
- Rope burns
- Pattern injuries

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### Bruises Behind the Ear



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### Bruising or Petechiae behind the Ear Lobe



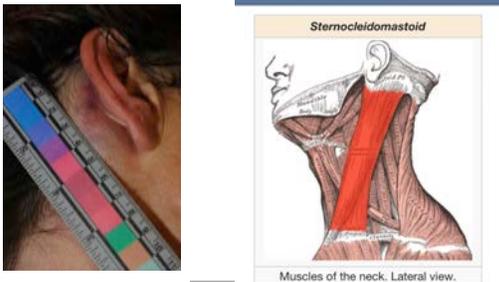
- Living Victims of Strangulation
- A 10-Year Review of Cases in a Metropolitan Community
- Lisa B.E. Shields, MD, Tracey S. Corey, MD, Barbara Weakley-Jones, MD, and Donna Stewart, MD

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### Bruising Behind the Ear



Sternocleidomastoid

Muscles of the neck. Lateral view.

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### Thumb-print bruise



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Red marks (erythema) - often 3.



26 year old female, 3-months pregnant, strangled to death



Massive tongue swelling (edema)



How does Petechiae occur?

## Solid Hands

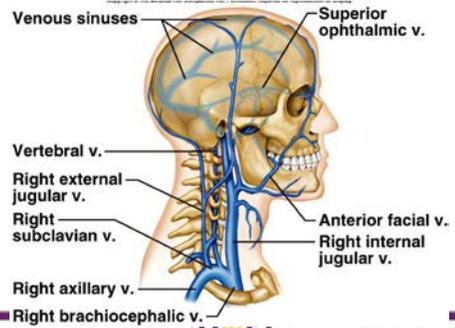


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## Occlusion of Venous Return



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## Internal (Visceral) Locations:

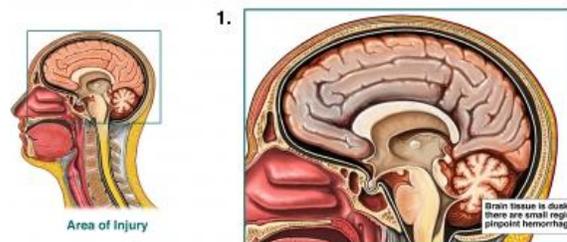
- Throat/posterior pharynx
- Brain
- Scalp
- Heart
- Lungs
- Any organ

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## Normal Brain

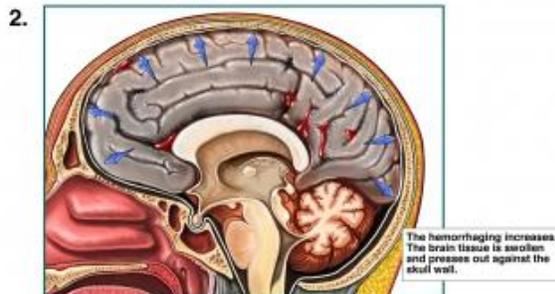


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## Pressure Starts To Increase

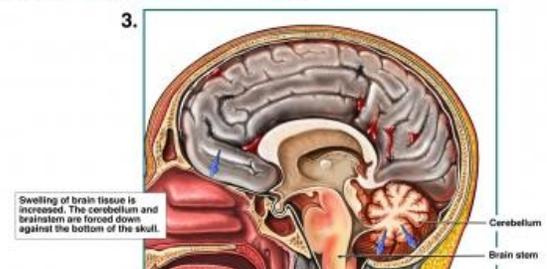


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## Swelling & Rupture from Venous Backup



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**Petechiae are smooth and flat.**

**Acne is usually raised or bumpy.**

**Note the distinction.**

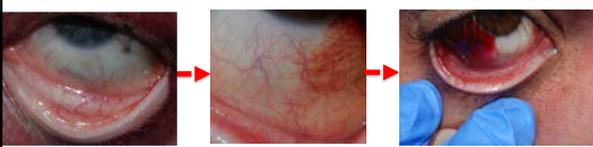
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Petechiae - one red spot in eye



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**Progression:**  
Venous Congestion to Petechial Hemorrhages to Scleral Hemorrhages



Venous Congestion And Few Petechial Hemorrhages

Venous Congestion And Multiple Petechial Hemorrhages

Petechial Hemorrhages And Scleral Hemorrhages

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Over the Eyelid



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Neck



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### Petechial Hemorrhage-Uvula



Courtesy of Dr. Smock

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Courtesy of Dr. Smock

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### Day 1



Courtesy of Fresno Police Department, Mike Agnew

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### Day 2



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### Day 2



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Day 30

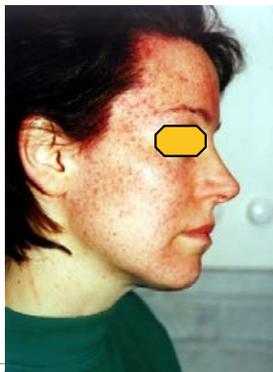


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Comparison Photos

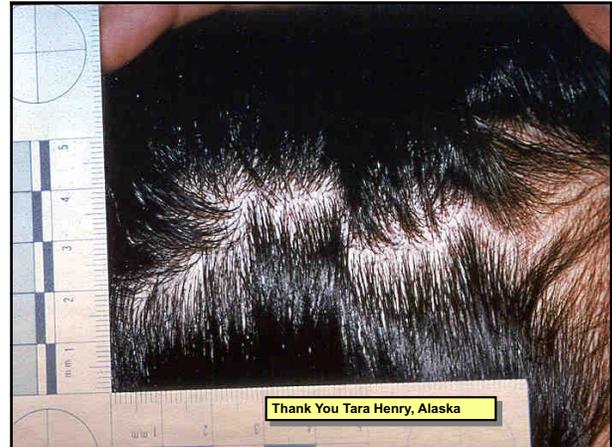


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Courtesy of Dr. Dean Hawley

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Thank You Tara Henry, Alaska



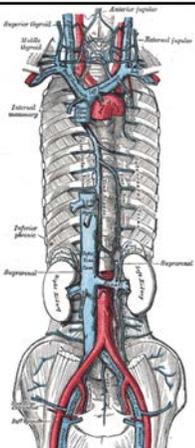
From Trixie Colburn

- Trixie Colburn:
  - Victims seeking protection orders reported that their abused were sitting on top of their stomachs while being strangled.
- Dr. Smock:
  - In a positional asphyxia case you can find petechial hemorrhage any where on the skin. If the inferior vena cava is blocked with abdominal pressure petechial hemorrhage in the legs is clearly possible.



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Compression of the vena cava's, superior or inferior, will increase the pressure in the venous system:  
 Superior VC-Head  
 Inferior VC-Legs



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### Subconjunctival Hemorrhage



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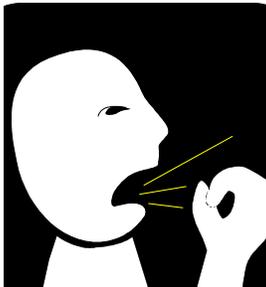
## Symptoms (subjective)

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### Symptoms of Laryngeal Injury



- Voice changes
  - 50% of victims
  - Nerve (recurrent laryngeal nerve)
  - Hoarseness (dysphonia)
    - May be permanent
  - Loss of voice (aphonia)

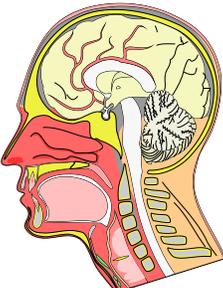
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### Symptoms of Laryngeal Injury

- Swallowing Changes
  - Due to larynx injury
  - Difficult to swallow (dysphagia)
  - Painful to swallow (odynophagia)



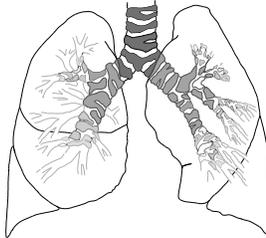
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### Symptoms of Laryngeal Injury

- Breathing Changes
  - Due to laryngeal fracture or swelling
  - Difficult to breathe (dyspnea)
  - Inability to breathe (apnea)
  - May appear mild but may kill within 36 hours



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### Symptoms of (asphyxia or hypoxia)

- Behavioral Changes
  - Early: Restlessness and violence
    - Hostile toward officers at the scene
    - "She woke up fighting"
  - Long term:
    - Psychosis
    - Amnesia
    - Changes in personality
    - Progressive dementia



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### Symptoms of (asphyxia or hypoxia)

- Evidence of brain Injury from strangulation will include problems with:
  - Memory
  - Concentration
  - Sleep
  - Headaches
  - Depression and
  - Anxiety



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## Dr. Smock's Top 25 Medical Consequences Resulting from Strangulation and Lateral Vascular Neck Restraint

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## 12. Carotid Artery Dissection

- Unilateral and bilateral
- Pressure applied to the carotid arteries during strangulation and "choke holds" results in damage (tears) within the vessel
- Death, stroke, long-term therapy

Clarot F et al: Fatal and non-fatal bilateral delayed carotid artery dissection after manual strangulation;Forensic Science International;2005, 149:143-150.

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### Carotid Dissection



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1. Contusion.  
2. Status post strangulation.

DISPOSITION:  
Discharge to home.

CONDITION ON DISCHARGE:  
Stabilized.

DISCHARGE INSTRUCTIONS:  
Follow up with Dr. Kureshi as an outpatient. Return precautions were given. Return for new or worsening symptoms or any other concerns.

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### Special thanks to LMPD, Dr. Smock & National Advisory Board

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### Pregnancy Protocol

- CTA is safe for all stages and lactating patients
- CT neck is safe for all stages and lactating patients
- MRI is safe for all trimesters and/or lactating patients
- Special thanks to:
  - Dr. Michael Weaver
  - Dr. Ralph Riviello
  - Dr. Sally Henin
  - Barbra Bachmeier
  - Annie Lewis O'Connor
  - Jen Johnson
  - Stacey Mitchell

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Table 1. Literature review of carotid artery dissection.

Case No.	Authors and Year	Age/Sex	Etiology of Dissection	Side	Treatment	Time Interval after Onset	Clinical Symptoms
1	Anne et al. 2002	24F	motor vehicle accident	bilateral	anticoagulation	1 day	ICS R/L hemiplegia
2	Anne et al. 2002	25F	motor vehicle accident	bilateral	anticoagulation	6 days	drooping, R/ hemiparesis, R/ Horner
3	Bejjani et al. 1999	53/M	direct blow	rt	stenting	3 months	L/ hemiparesis
4	Bejjani et al. 1999	38/M	gumball	rt	stenting	8 days	L/ hemiparesis
5	Bejjani et al. 1999	33F	motor vehicle accident	lt	stenting	1 day	R/ hemiplegia
6	Bejjani et al. 1999	55F	lift a heavy load	rt	stenting	2 weeks	L/ neck pain, headache
7	Doi et al. 2004	21/M	motor vehicle accident	rt	stenting	2 hours	ICS 30/L hemiparesis
8	Duncan et al. 2000	39/M	motor vehicle accident	bilateral	anticoagulation	a few hours	L/ hemiplegia
9	Fabrizio et al. 2004	17/M	motor vehicle accident	bilateral	stenting	7	L/ hemiparesis
10	Khanou et al. 1996	41/F	motor vehicle accident	bilateral	anticoagulation	1 day	L/ lower limb paresis
11	Malick et al. 2000	37/F	domestic abuse	bilateral	stenting	13 months	R/ hand weakness and numbness
12	Malick et al. 2000	43/F	domestic abuse	bilateral	stenting	3 months	L/ hemiparesis
13	Malick et al. 2000	24/F	domestic abuse	bilateral	anticoagulation	6 months	ICS 300
14	Malick et al. 2000	37/F	hanging injury	lt	stenting	13 months	R/ hemiparesis, leg numbness, and dysphagia
15	Malick et al. 2000	44/F	motor vehicle accident	lt	stenting	4 months	dysphasia, R/ arm weakness, and numbness
16	Noguchi et al. 1992	50/F	hanging injury	rt	cervicodendrosectomy	2 years	L/ arm 4/5, hypocoesthesia
17	Okada et al. 1999	30/F	motor vehicle accident	lt	bypass surgery	7 months	R/ hemiparesis
18	Okada et al. 1999	42/F	motor vehicle accident	rt	bypass surgery	7 days	L/ hemiparesis
19	Okada et al. 1999	58/F	motor vehicle accident	rt	bypass surgery	10 years	L/ hemiparesis
20	Okada et al. 1999	41/F	hanging injury	rt	bypass surgery	2 years	hoarseness
21	Okada et al. 1999	42/M	direct blow	rt	bypass surgery	2 years	L/ hemiparesis
22	Okada et al. 1999	29/M	motor vehicle accident	rt	anticoagulation	11 days	ICS 200
23	Seavore et al. 2001	53/M	motor vehicle accident	rt	stenting	6 weeks	hoarseness, neck pain
24	Stahfield et al. 2002	39/M	ride on a roller coaster	rt	anticoagulation	6 weeks	headache, Lt eye pain, Lt temporoparietal numbness

Interventional Neuroradiology 42: 149-154, 2006

### No. 1: Is it medically necessary?

Yes

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## No. 2: How is it going to be funded?

## No. 3 – Risk of Radiation

## No. 4: Negative Findings

Did we waste our time/money?

## Dr. Smock

- "Given the current state of our medical knowledge and the morbidity and mortality associated with a missed arterial injury in the neck, it is malpractice to not order a screening CTA in the non-fatal strangled patient"



The screenshot shows a web browser displaying a blog post from Kreisman Law Offices. The article is titled "\$6.3 Million Jury Verdict for Doctor's Failure to Diagnose Artery Dissection" and is dated July 18, 2017. The text describes a case where a 38-year-old high school wrestling coach experienced dizziness and neck pain, leading to a stroke. The doctor failed to diagnose an artery dissection, and the jury awarded a \$6.3 million verdict. The article includes a "CONTACT US" form and a "TOPICS" list with items like "Medical Malpractice (188)", "Wrongful Death (197)", and "Medications (123)".

## Hospitals Adopting Recommendations



Dr. Bill Smock

## Dear Doctor

Team effort

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## New Toolkit



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## New IAFN Strangulation Position Paper and Recommendations (2016):

- We recommend that:
  - Where possible, forensic nurses are utilized in collaboration with other providers to address the health care needs of the strangled patient population.
  - Health care providers delivering emergency services receive training specific to the screening, medical and radiologic assessment, documentation, medical intervention, and follow-up care.
  - Health care providers caring for known or suspected sexual assault, intimate partner violence, elder abuse as well as child maltreatment victims should routinely screen for strangulation and understand the laws for reporting.
  - Health care agencies delivering emergency services should adopt evidence-based, multi-disciplinary policies and procedures that are current and well understood by staff in order to facilitate the screening, assessment and intervention process;
  - Health care agencies ensure consistent access to trained providers within the agency, as well as collaborative relationships with outside agencies (i.e. Law enforcement, advocacy and prosecution).
  - Health care providers that assess and treat strangulation patients include a detailed, strangulation-specific assessment as a standard component of the medical-forensic examination including protocols for medical/radiological evaluation danger assessment and safety planning (to be completed by medical or advocacy professionals).

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## New Strangulation Kit from Maryland



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## The Strangulation Kit

- Paperwork:**
  - Touch DNA Instruction Card
  - Strangulation Medical Forensic Documentation Tool
  - Body Map
  - Photo Record
  - Chain of Custody Form
  - Evidence Collection Checklist
  - Strangulation DC Instructions
  - Discharge Phone Call Questionnaire
  - Data Points
- Evidence Collection Items:**
  - Mask
  - Sterile Gloves
  - Sterile Water Bullet
  - Scales
  - DVD for Photos
  - Evidence collection envelopes:
    - Underwear evidence bag
    - Fingernail swabbings
    - Oral swabs for Known Standard
    - Two envelopes re-labeled "For Touch DNA"
    - One large white envelope with label : "Victim Strangulation Kit" with appropriate patient information (name, dos, assault date, police agency, case # and FNE name)
    - One large white envelope with label for hospital copy

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## What Does HIPAA Say Regarding Release of Information to Law Enforcement?

**45 CFR 164.512**

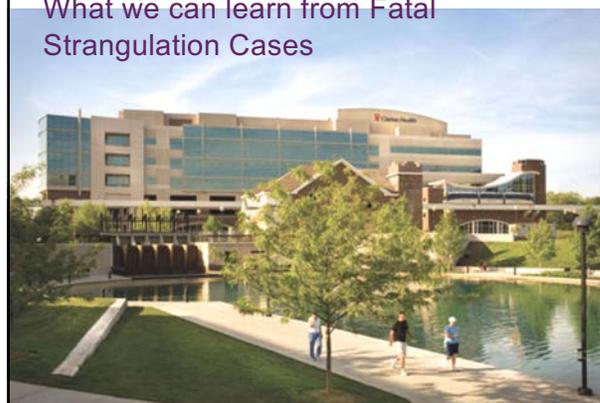
- (Permitted disclosures. Except for reports of child abuse or neglect permitted by paragraph (b)(1)(ii) of this section, a covered entity may disclose protected health information about an individual whom the covered entity reasonably believes to be a **victim of abuse, neglect, or domestic violence to a government authority, including a social service or protective services agency, authorized by law to receive reports of such abuse, neglect, or domestic violence:**

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## 45 CFR 164.512

- **Permitted Disclosures:**
  - Name and address
  - Date and place of birth
  - Social security number
  - ABO blood type and rh factor
  - Type of injury
  - Date and time of treatment
  - Date and time of death
  - Description of distinguishing physical characteristics including height, weight, gender, race, hair and eye color, presence or absence of facial hair, scars and tattoos
  - **Full-face photographic images and any comparable images**

## What we can learn from Fatal Strangulation Cases



Exact Anatomic Location of Applied Force

Quantity of Applied Force

Duration of Applied Force

Surface Area Of Applied Force



## Why did they survive?

"I can explain why she died but I can't explain why she lived."  
Dr. Dean Hawley

## Possible theories:

- Something stopped the defendant from applying continuous pressure:
  - Child crying
  - Independent witness
  - Police arrived
  - Victim begged him to stop
  - The victim fought back and managed to escape
  - The victim played dead or was in deep coma
  - He thought she was dead and he released his grip

## Important to Remember

- **Victims may have NO visible injuries, with only transient symptoms-yet because of carotid injuries or brain damage from lack of oxygen during the strangling, victims have stroked or died up to several months later**
- **The carotid arteries, especially the internal carotids, must be evaluated if the patient has signs or symptoms related the application of significant external pressure to the neck**
- **Injuries can blossom in both the living and deceased, re-examine in 48-72 hours.**

## Let's Take A Test

A Quick Summary of Key Points



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*Strangulation victims are 750% more likely to be killed later by the same partner*

## TRUE or FALSE?

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*No oxygen to the brain is called?*

## Anoxia

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*The carotid \_\_\_\_\_ delivers blood to the brain?*

## Artery

*The artery takes oxygen rich blood to the brain and the veins take bad blood back to the lungs*

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*Most experts agree brain death due to a lack of BLOOD flow can occur within how many minutes?*

- A.** Seconds
- B.** Five minutes
- C.** Two and half minutes or less
- D.** Ten minutes
- E.** All of the above

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*Match the medical term to the term we would use:*

Petechiae	Felony
Asphyxia	No voice
Aphonia	Tiny red spots
Edema	No oxygen
Strangulation	Swelling

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Text  
**HOPEGIVER**

To **22828** to get started.

Message and data rates may apply.



### How to Reach Us

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760-445-3559

