

# Near Fatal Strangulation

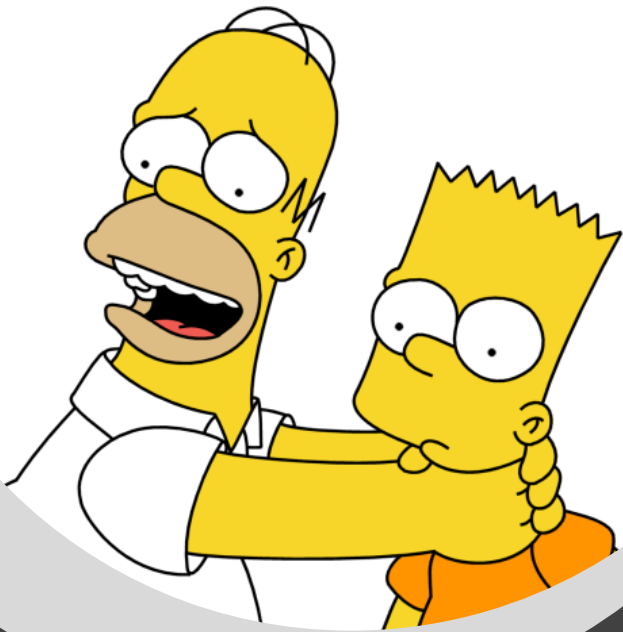
From a Nurse's View

Forensic Nursing Development Initiative

Jennifer Slominski RN, CEN, SANE~A

CEO, Founder

- “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.”
- “When a person applies pressure to another’s neck, they are raising their hand and saying they are killers.”



# Strangulation vs Choking

- Strangulation is not “choking”.
- You are strangled from the outside.
- You are choked from the inside.
  - From obstruction of the trachea
- Two forms of Strangulation
  - Ligature
  - Manual



Strangulation is a form of asphyxia (lack of oxygen) characterized by closure of the blood vessels and or air passages of the neck. Absence of visible injury is common.

### Asphyxia

Mechanical

Positional

Traumatic

Drowning


Encourage medical treatment

# Strangulation

Source: CA Law Enforcement Brochure-Agnew & Heisler

# 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**
- **Air goes in and out**



**THE “NECK”  
IS THE  
MOST  
VULNERABLE  
PART OF  
THE BODY**

- Blood and oxygen all flow from the body to your brain through the NECK.
- The NECK is the most unprotected part of the body.
- More serious injuries occur from NECK trauma than any other part of the body.

# Key Terms



- Asphyxia (as-phyx-i-a):
  - A condition arising when the body is deprived of oxygen causing unconsciousness or death; suffocation.
- Anoxia (a-nak-se-a):
  - Absence of oxygen supply to tissue (carotid compression in strangulation-no blood flow)
- Hypoxia (hy-pox-i-a):
  - Deficiency in the amount of oxygen reaching the tissue (drowning-blood flow with decreasing oxygen levels)

# **STRANGULATION IS ONE OF THE MOST LETHAL FORMS OF VIOLENCE USED BY MEN AGAINST THEIR INTIMATE PARTNERS**

- The act of strangulation symbolizes an abuser's power and control over the victim.
- The sensation of suffocating can be terrifying.
- Most victims of strangulation are female.
- The victim is completely overwhelmed by the abuser; the victim vigorously struggles for air and is at the mercy of the abuser for their life.
- A single traumatic experience of strangulation or the threat of it may instill such intense fear that the victim can get trapped in a pattern of control by the abuser and made vulnerable to further abuse.

# Defining Trauma

- Trauma results from an event, series of events, or set of circumstances that is experienced by an individual as physically and emotionally harmful or threatening and that has lasting adverse effects on the individual's physical, social, emotional, or spiritual well-being.



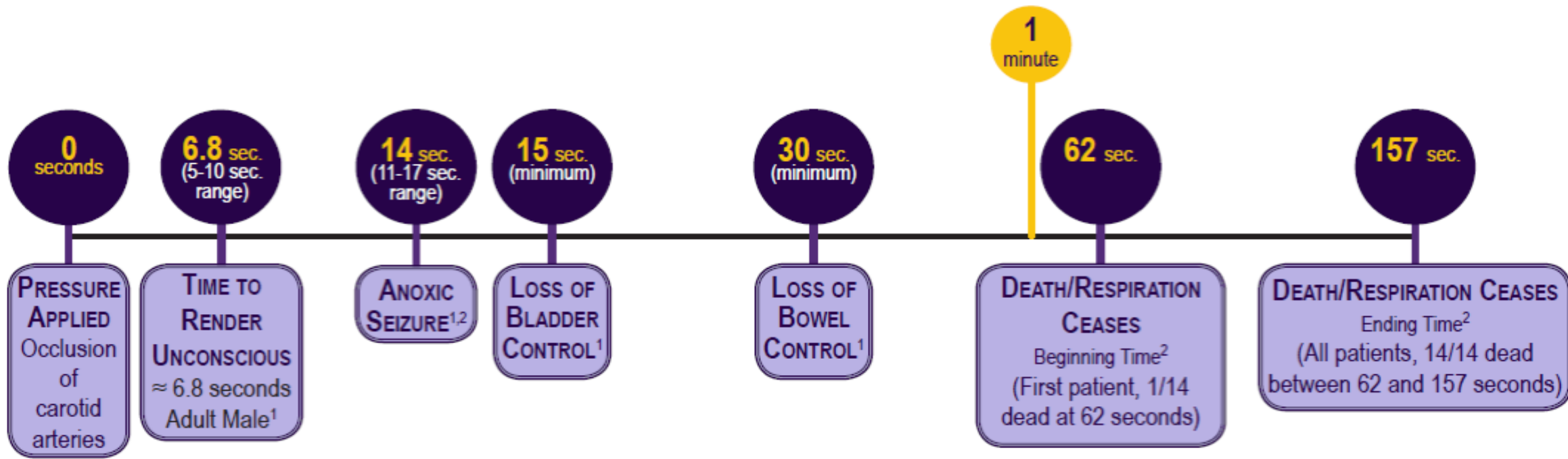




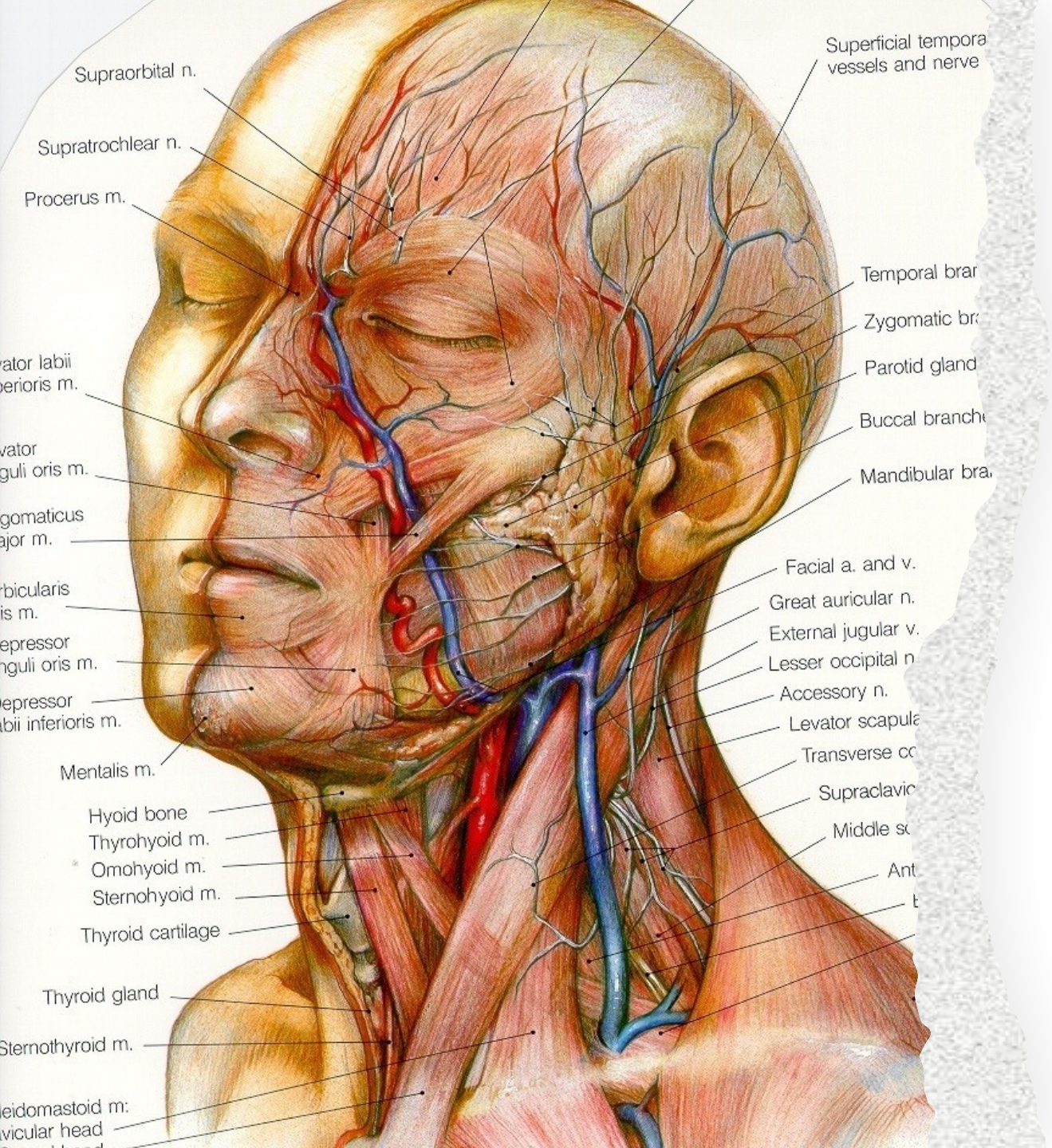
# Force vs Structure

- Jugular vein occlusion
  - Lateral neck
  - 4.4 pounds of pressure for 10 seconds
- Carotid artery occlusion
  - Anterior neck
  - 11 pounds of pressure for 10 seconds
- Damage to the larynx or hyoid bone
  - 22 pounds of pressure
    - Occlusion
  - 33 pounds of pressure
    - Fracture
- Tracheal Occlusion
  - 33 pounds of pressure to completely occlude
  - At least 33 pounds of pressure or more to fracture tracheal cartilage



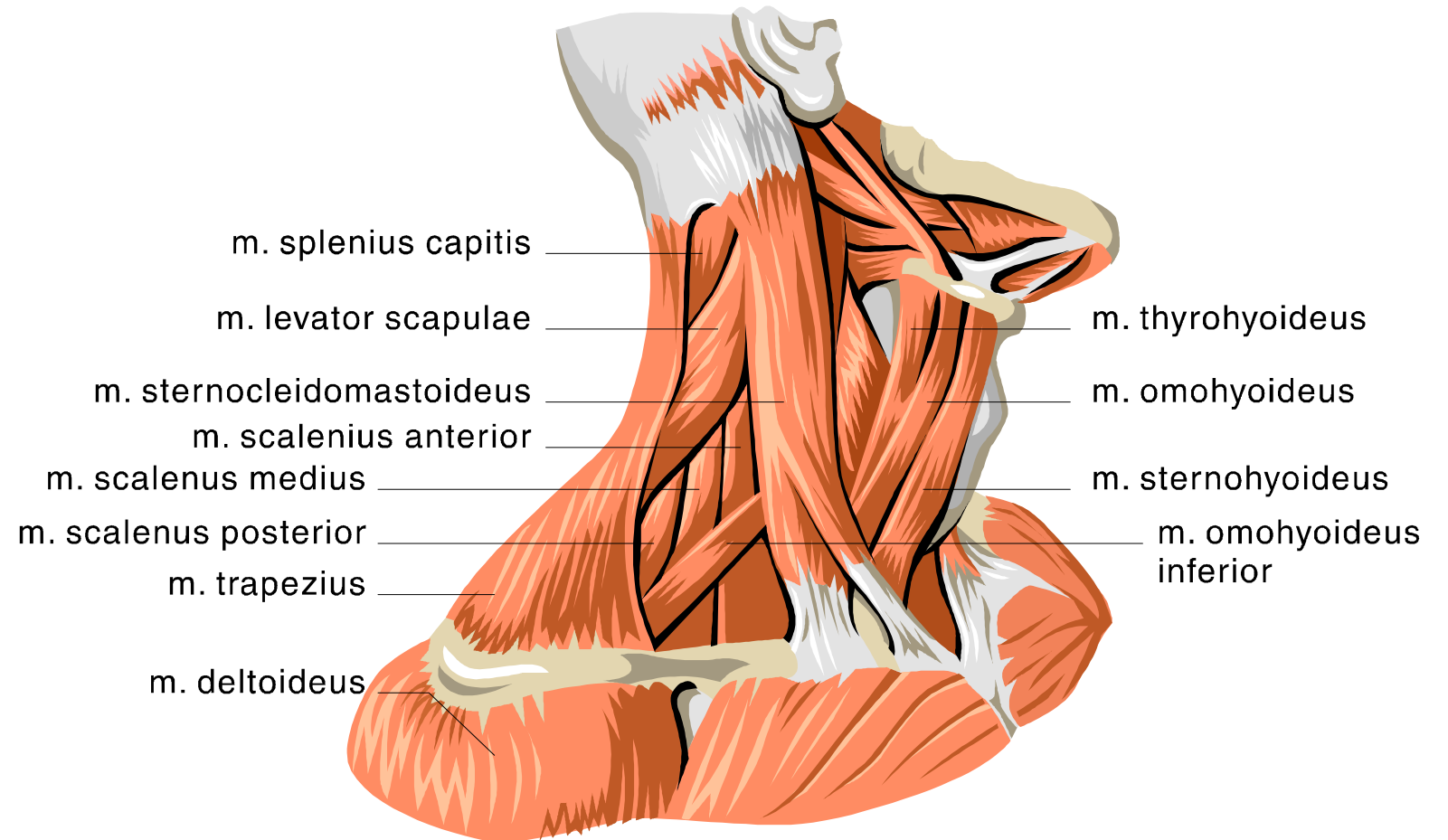


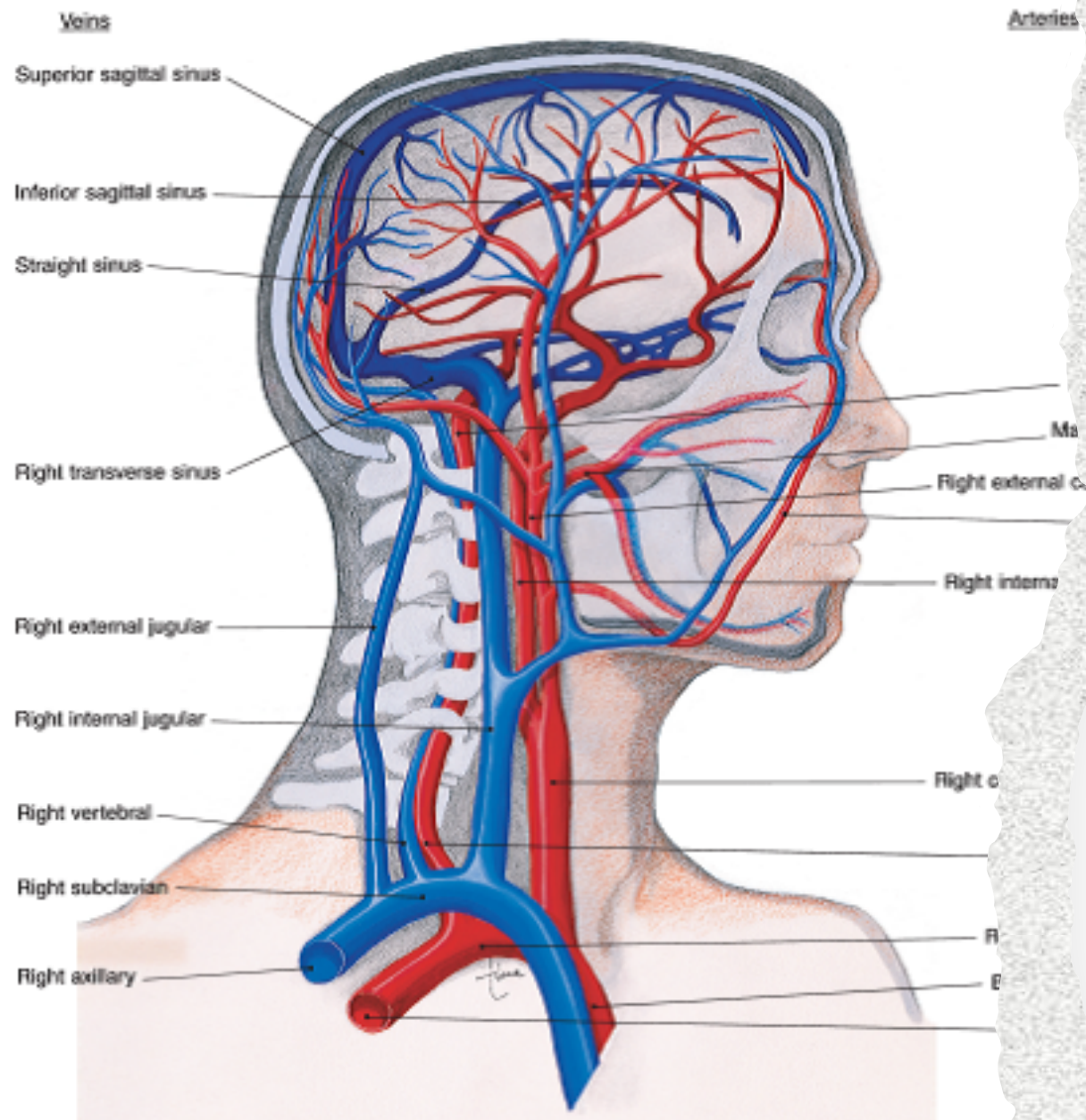




# Muscles

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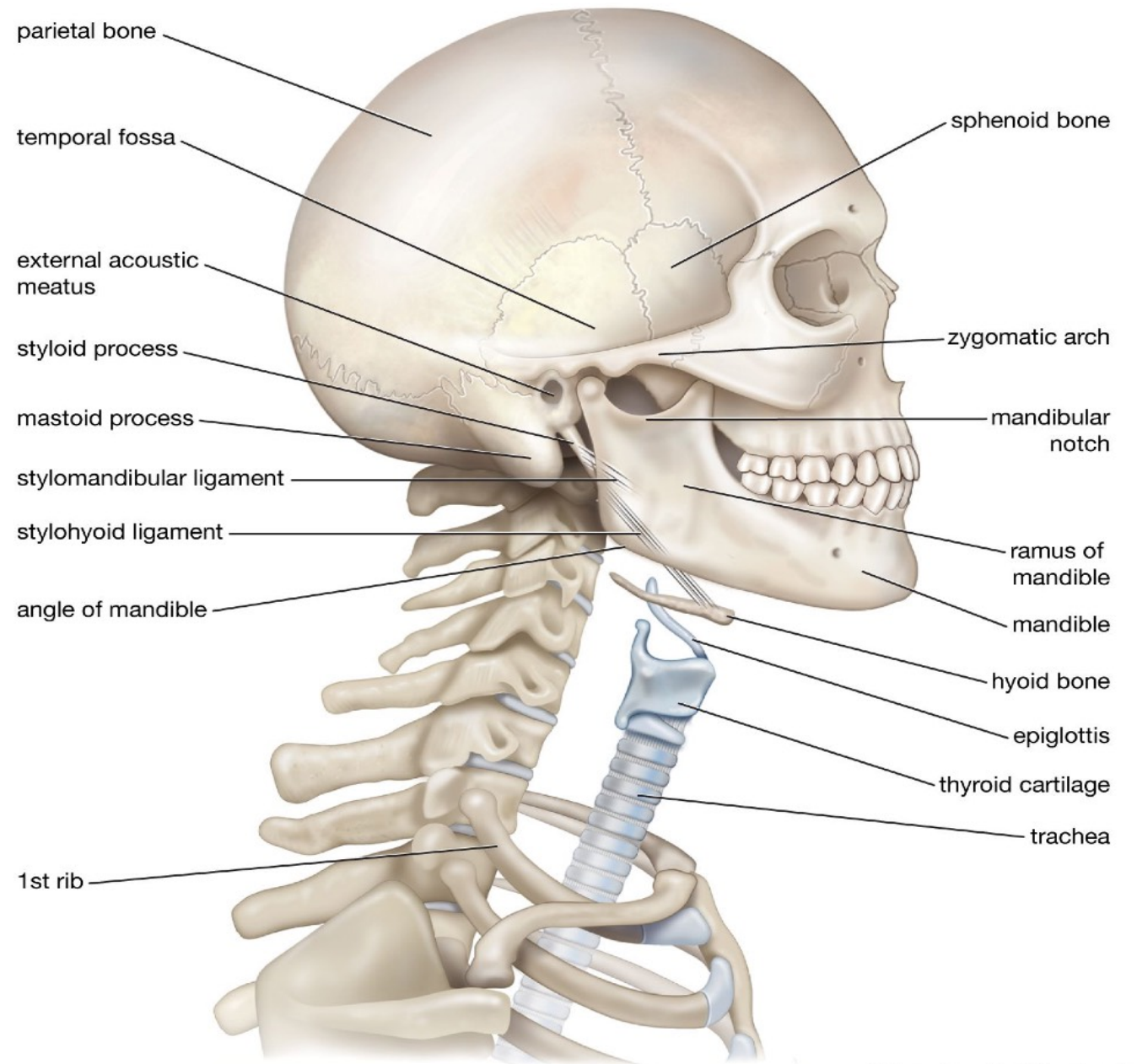


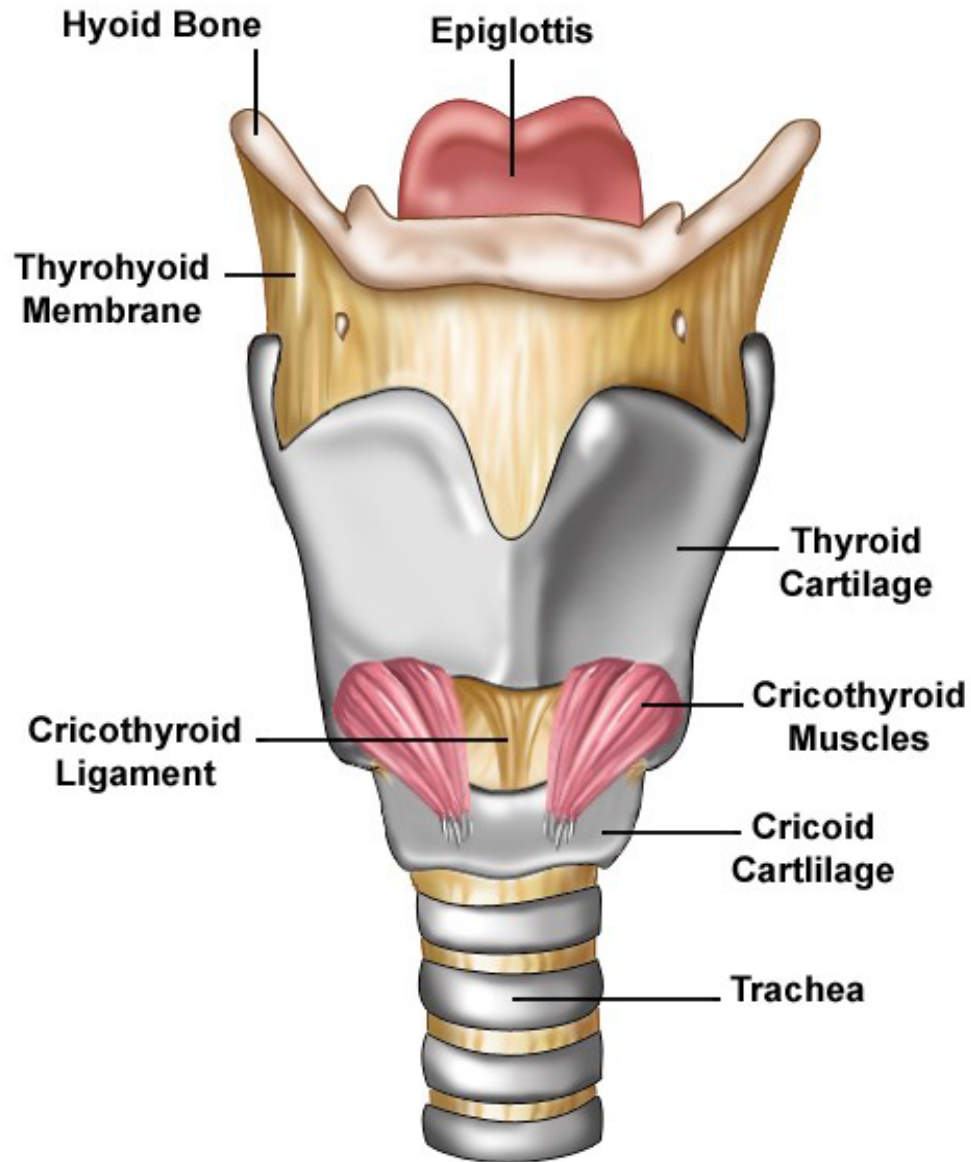


**Figure 13-5** Arteries and veins of the head and neck shown in right lateral view. Veins are labeled on the left. Arteries are labeled on the right.

# Bones

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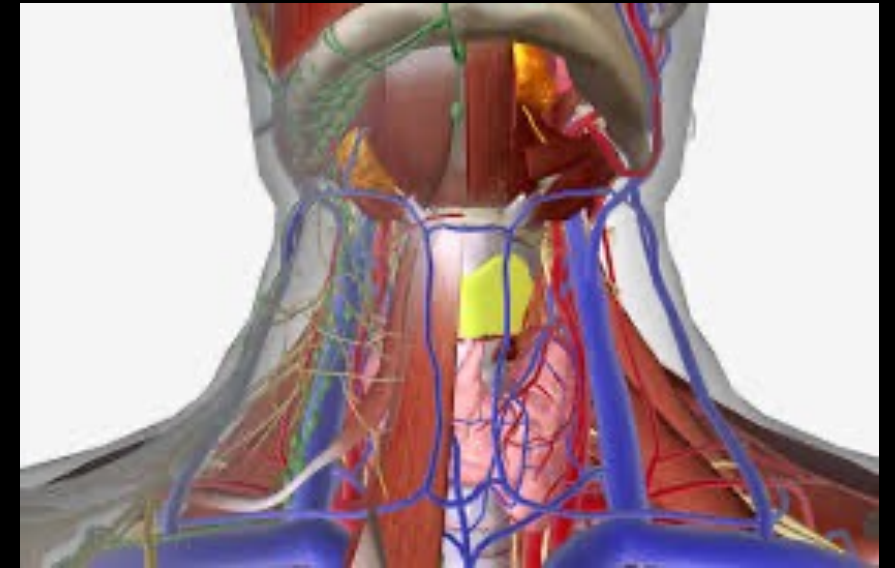
# Cartilage

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- **Damage to the larynx or hyoid bone**
    - Hemorrhage
    - Edema
    - Bruising/Contusion
    - 22 pounds of pressure
      - Occlusion
    - 33 pounds of pressure
      - Fracture
-

# Pathophysiology

- Final common pathway is lack of oxygen
- Cardiac arrhythmia from carotid sinus pressure
- Jugular vein occlusion
- Carotid artery occlusion
- Tracheal occlusion/injury (not common)
- Fracture of the Hyoid



Symptoms

A vertical white tear-like line runs down the center of the image, separating a black left side from a solid black right side. The word "Symptoms" is written in white on the left side.









## Incontinence

- Serious finding in non-fatal strangulation
- Alteration in cerebral blood flow and consciousness
- Usually caused by sphincter relaxation (anal, bladder, esophageal)
- Urinary, fecal, and gastric
- Patients may be embarrassed or ashamed to report
- Ask, must normalize it for the patient
- *“Often times, women I care for who were strangled report that they wet themselves , did this happen to you”*



How did  
you feel?

- “Fuzzy”
- “Dizzy”
- “Head rush”
- “I saw stars.”
- “I saw black and white.”
- “I couldn’t breathe”
- “I passed out”
- “I vomited several times”
- “I had trouble swallowing”
- “I felt like my head was going to explode”
- “I felt a rush of blood to my head”

**“THE MORE YOU  
KNOW, THE  
MORE  
YOU SEE, AND  
THE  
MORE YOU  
DOCUMENT”.**



# Death

- Death can occur days or weeks after the attack due to carotid artery dissection and respiratory complications such as pneumonia, acute respiratory distress syndrome (ARDS), and the risk of blood clots traveling to the brain (embolization).

Signs







# Neck Bruising and Finger Marks

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- *This victim was strangled repeatedly with two hands.*
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## Abrasions

Instinctual chin lowering



# Tongue swelling and Bruising



# Injuries to the inner mouth





PETECHIAE





Petechiae

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Source: K.J. Knoop, L.B. Stack, A.B. Storrow, R.J. Thurman:  
The Atlas of Emergency Medicine, 4th Edition,  
[www.accessemergencymedicine](http://www.accessemergencymedicine)  
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# The Eyes.... Subconjunctival Hemorrhage







Archives of Neurology and Psychiatry (1943) 50 : 510-528

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.

## The Kabat-Rossen-Anderson apparatus



Fig. 1. Apparatus for producing acute cerebral ischemia in humans worn by its designer, Mr. J.P. Anderson [by permission].

- The subjects were 126 apparently normal male volunteers, ranging in age from 17 to 31 years. Eighty-two of the men were inmates of the Minnesota State Reformatory, St. Cloud, Minn., and ranged in age from 17 to 25 years. The other subjects were at the Minnesota State Prison in Stillwater, Minn., and ranged in age from 21 to 31 years . Repeated tests were carried out on 85 of these subjects . Similar tests were also performed on the investigators and their associates .





# SIGNS AND SYMPTOMS OF STRANGULATION

## NEUROLOGICAL

- Loss of memory
- Loss of consciousness
- Behavioral changes
- Loss of sensation
- Extremity weakness
- Difficulty speaking
- Fainting
- Urination
- Defecation
- Vomiting
- Dizziness
- Headaches

## SCALP

- Petechiae
- Bald spots (*from hair being pulled*)
- Bump to the head (*from blunt force trauma or falling to the ground*)

## EYES & EYELIDS

- Petechiae to eyeball
- Petechiae to eyelid
- Bloody red eyeball(s)
- Vision changes
- Droopy eyelid

## EARS

- Ringing in ears
- Petechiae on earlobe(s)
- Bruising behind the ear
- Bleeding in the ear

## FACE

- Petechiae (*tiny red spots- slightly red or florid*)
- Scratch marks
- Facial drooping
- Swelling

## MOUTH

- Bruising
- Swollen tongue
- Swollen lips
- Cuts/abrasions
- Internal Petechiae

## CHEST

- Chest pain
- Redness
- Scratch marks
- Bruising
- Abrasions

## NECK

- Redness
- Scratch marks
- Finger nail impressions
- Bruising (*thumb or fingers*)
- Swelling
- Ligature Marks

## VOICE & THROAT CHANGES

- Raspy or hoarse voice
- Unable to speak
- Trouble swallowing
- Painful to swallow
- Clearing the throat
- Coughing
- Nausea
- Drooling
- Sore throat
- Stridor

## BREATHING CHANGES

- Difficulty breathing
- Respiratory distress
- Unable to breathe

Source: *Strangulation in Intimate Partner Violence*, Chapter 16, *Intimate Partner Violence*. Oxford University Press, Inc. 2009.



[www.strangulationtraininginstitute.com](http://www.strangulationtraininginstitute.com)

Graphics by Yesenia Aceves

# SIGNS AND SYMPTOMS OF STRANGULATION

(VISIBLE SIGNS MAY NOT BE PRESENT)

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- Chest pain
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- Scratch marks
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- Abrasions

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- Scratch marks
- Finger nail impressions
- Bruising (*thumb or fingers*)
- Swelling
- Ligature or Clothing Marks

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Illustration & Graphics by Yesenia Aceves

# STRANGULATION ASSESSMENT CARD

v 8.30.18

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

## 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.

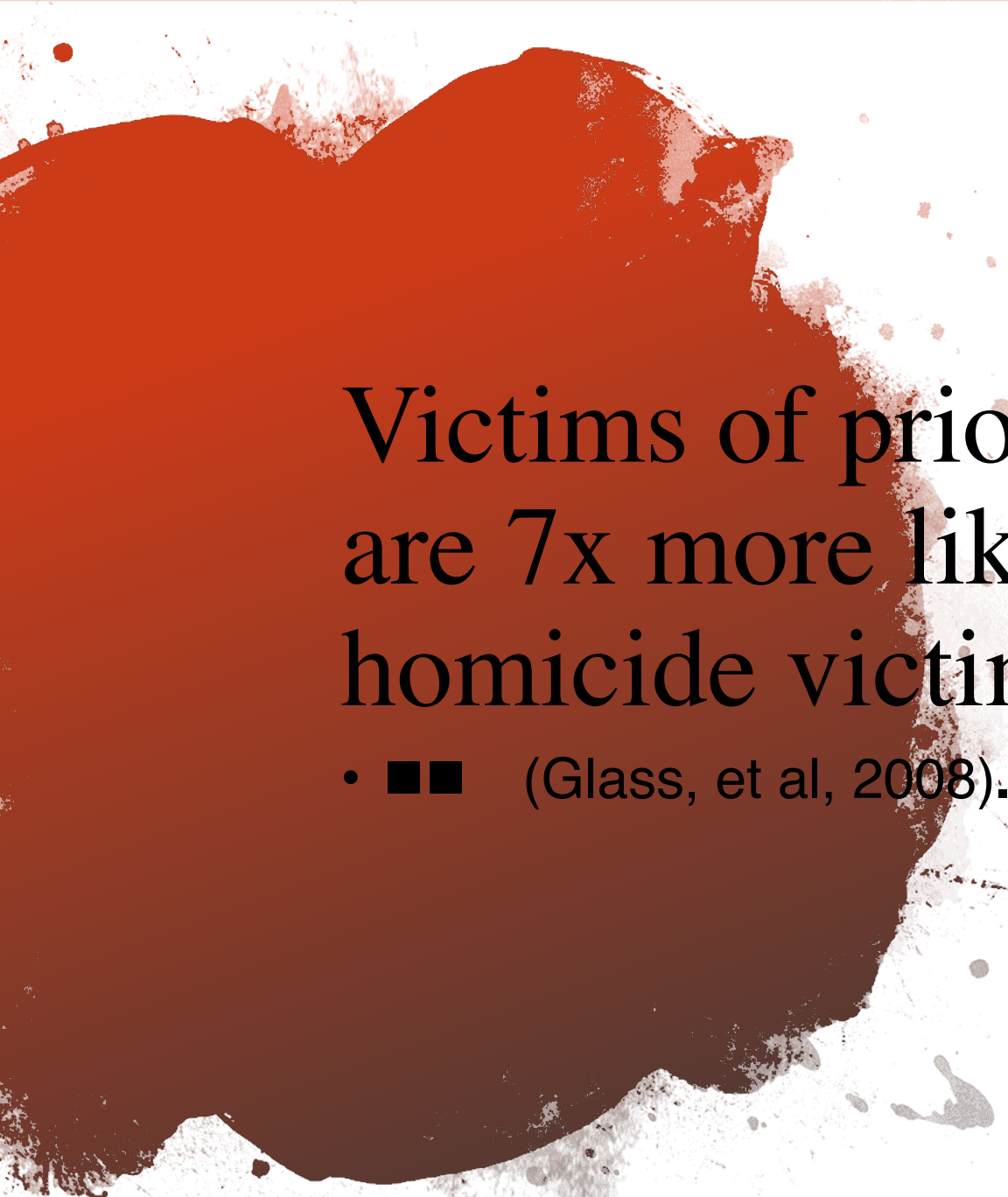
Taliaferro, E., Hawley, D., McClane, G.E. & Strack, G. (2009), *Strangulation in Intimate Partner Violence. Intimate Partner Violence: A Health-Based Perspective.* Oxford University Press, Inc.

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**STRANGULATION IS OFTEN ONE OF THE  
LAST ABUSIVE ACTS COMMITTED BY A  
VIOLENT DOMESTIC PARTNER BEFORE  
MURDER.**

- 2004 Report, Hennepin County Domestic Fatality Review Team (Minneapolis, MN)



Victims of prior nonfatal strangulation  
are 7x more likely of becoming a  
homicide victim.

- ■■ (Glass, et al, 2008).



# Resources

- Gael B. Strack, JD, CEO and Co-Founder of the Family Justice Center Alliance, San Diego, CA, [gael@nfjca.org](mailto:gael@nfjca.org), 888-511-3522
- Dr. Michael Weaver, M.D., Medical Director, St. Luke's Hospital's Sexual Assault Treatment center, Kansas City, Missouri.
- **Hon. Alan F. Pendleton, Anoka County District Court, Anoka, Mn 55303; 763-422-7309; NATIONAL JUDICIAL TRAINING UPDATE; TRAINING UPDATE 14-7**
- the National Training Institute on Strangulation Prevention, [www.strangulationtraininginstitute.com](http://www.strangulationtraininginstitute.com)
- International Association of Forensic Nurses
- Training Institute on Strangulation Prevention

*Thank you for you  
and all you do!*

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- ▶ Comments...
- ▶ Issues...
  
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