

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

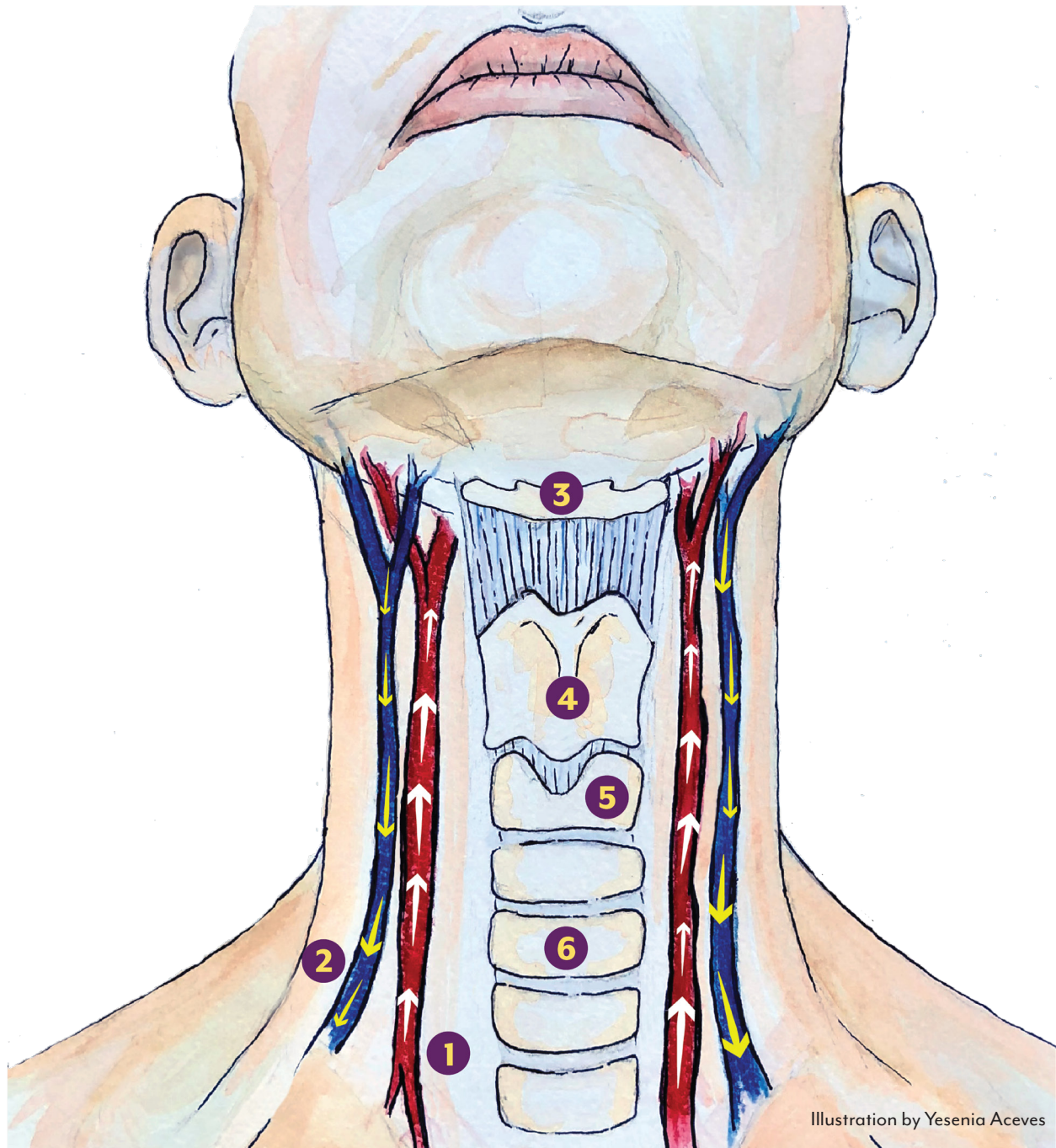
- Raspy or hoarse voice
- Unable to speak
- Trouble swallowing
- Painful to swallow
- Clearing the throat
- Coughing
- Nausea
- Drooling
- Sore throat
- Stridor

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.*





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|-------------------------|----------------------------|----------------------------|
| 1 Carotid Artery | 3 Hyoid Bone | 5 Cricoid Cartilage |
| 2 Jugular Vein | 4 Thyroid Cartilage | 6 Tracheal Rings |

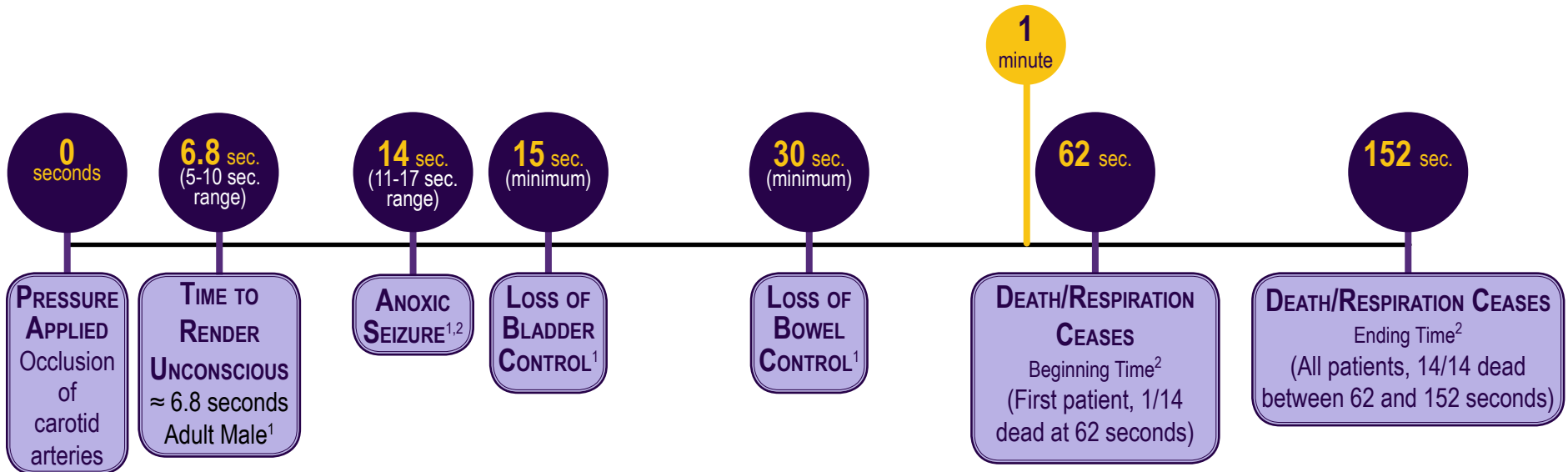
This project is supported all or in part by Grant No. 2016-TA-AX-K067 awarded by the Office on Violence Against Women, U.S. Department of Justice. The opinions, findings, conclusions, and recommendations expressed in this publication/program/exhibition are those of the author(s) and do not necessarily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



PHYSIOLOGICAL CONSEQUENCES OF STRANGULATION

Occlusion of Arterial Blood Flow: Seconds to Minutes Timeline

Created by: Ruth Carter; Bill Smock, MD; Gael Strack, JD; Yesenia Aceves, BA; Marisol Martinez, MA; and Ashley Peck



REFERENCES AND RESOURCES

- ¹ 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, Volume 50, #5.
- ² Anny Sauvagneau, MD, MSc; Romano LaHarpe, MD; David King, MD; Graeme Dowling, MD; Sam Andrews, MD; Sean Kelly, MD; Corinne Ambrosi, MD; Jean-Pierre Guay, PhD; and Vernon J. Geberth, MS; MPS for the Working Group on Human Asphyxia, Forensic Med Pathol 2011;32: 104 – 107.
- ³ Training Institute on Strangulation Prevention: strangulationtraininginstitute.com



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STRANGULATION ASSESSMENT CARD

v 10.12.18

SIGNS	SYMPTOMS	CHECKLIST	TRANSPORT
<ul style="list-style-type: none">● 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	<ul style="list-style-type: none">● 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	<p>S Scene & Safety. Take in the scene. Make sure you and the victim are safe.</p> <p>T Trauma. The victim is traumatized. Be kind. Ask: what do you remember? See? Feel? Hear? Think?</p> <p>R Reassure & Resources. Reassure the victim that help is available and provide resources.</p> <p>A Assess. Assess the victim for signs and symptoms of strangulation and TBI.</p> <p>N Notes. Document your observations. Put victim statements in quotes.</p> <p>G Give. Give the victim an advisal about delayed consequences.</p> <p>L Loss of Consciousness. Victims may not remember. Lapse of memory? Change in location? Urination? Defecation?</p> <p>E Encourage. Encourage medical attention or transport if life-threatening injuries exist.</p>	<p>If the victim is Pregnant or has life-threatening injuries which include:</p> <ul style="list-style-type: none">● Difficulty breathing● Difficulty swallowing● Petechial hemorrhage● Vision changes● Loss of consciousness● Urinated● Defecated <p>DELAYED CONSEQUENCES</p> <p>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.</p> <p>Taliaferro, E., Hawley, D., McClane, G.E. & Strack, G. (2009), Strangulation in Intimate Partner Violence. <i>Intimate Partner Violence: A Health-Based Perspective</i>. Oxford University Press, Inc.</p> <p>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.</p>

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.



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