



### Goals

1. Evaluate carotid and vertebral arteries for injuries.
2. Evaluate bony/cartilaginous and neck soft tissue structures.
3. Evaluate brain for anoxic injury.

**Note:** Life-threatening injuries can be present up to one year after strangulation event.

### Helpful Links

- S/Sx strangulation in [adults](#) and [children](#)
- Physiological consequences [timeline](#)

Patient presents with concern for strangulation

Are ANY of the following present?

- Airway: subcutaneous emphysema (can be a sign of tracheal or laryngeal rupture)
- Neurological: loss of consciousness, seizures, mental status changes, amnesia, cortical blindness, movement disorders, stroke-like symptoms
- HEENT:
  - Visual changes: spots, flashing lights, tunnel vision, etc.
  - Facial, intra-oral, or conjunctival petechial hemorrhage
  - Odynophagia
- Neck:
  - Ligature mark, neck contusion, soft tissue injury, swelling, carotid tenderness, etc.
  - Dysphonia/aphonia, hematoma, laryngeal fracture, recurrent laryngeal nerve injury
- Bladder or bowel incontinence
- Pulmonary: dyspnea, phrenic nerve injury

Yes to ANY

No to ALL

### Rule Out Life-Threatening Injuries

- If GFR  $\geq 30$ : CT angio of carotid/vertebral arteries. This is the gold standard for evaluation of vessels and bony/cartilaginous structures but is not very sensitive for soft tissue trauma.
- If GFR  $< 30$ : non-contrast CT of neck. This study is less sensitive than CT angio for vessel injury but gives good visualization of bony and cartilaginous structures.

Injury identified

- Consult trauma surgery and plan to transfer.
- Consider ENT consult for laryngeal trauma with dysphonia.

No injury identified

How recent was event?

$\geq 48$  hours ago

$< 48$  hours ago

Observe in ED or admit to inpatient until 48 hours post-event based on severity of symptoms.

Is there reliable home monitoring AND a safe place to go?

Yes

No

- Discharge home with detailed instructions to return to ED if any neurological signs/symptoms, dyspnea, dysphonia, odynophagia dysphagia, or voice changes occur or worsen.
- Give custom Strangulation Patient Education handout.

- Consider discharge to TWC.
- May call TWC Crisis Line (543-3456) for assistance with safe shelter.
- Also may call SART on call at 545-4238 for further assistance.

### Tundra Women's Coalition (TWC)

- Crisis Line: 543-3456
- Main office: 543-3444
- On-call advocate: 545-4328

### Services Provided by TWC

- Emergency shelter
- Hospital accompaniment
- Information about community resources
- Legal advocacy
- Violent crime compensation
- Funds for emergency air or cab transportation

If patient would like to report incident:

- If occurred in a village: Alaska State Troopers 543-2294
- If occurred in Bethel: Bethel Police Department 543-3781