

WHAT IS TODAY'S OBJECTIVE?

**THE PATHOLOGICAL
SIGNS OF
STRANGLING VS
HANGING**

I ENJOY HANGING

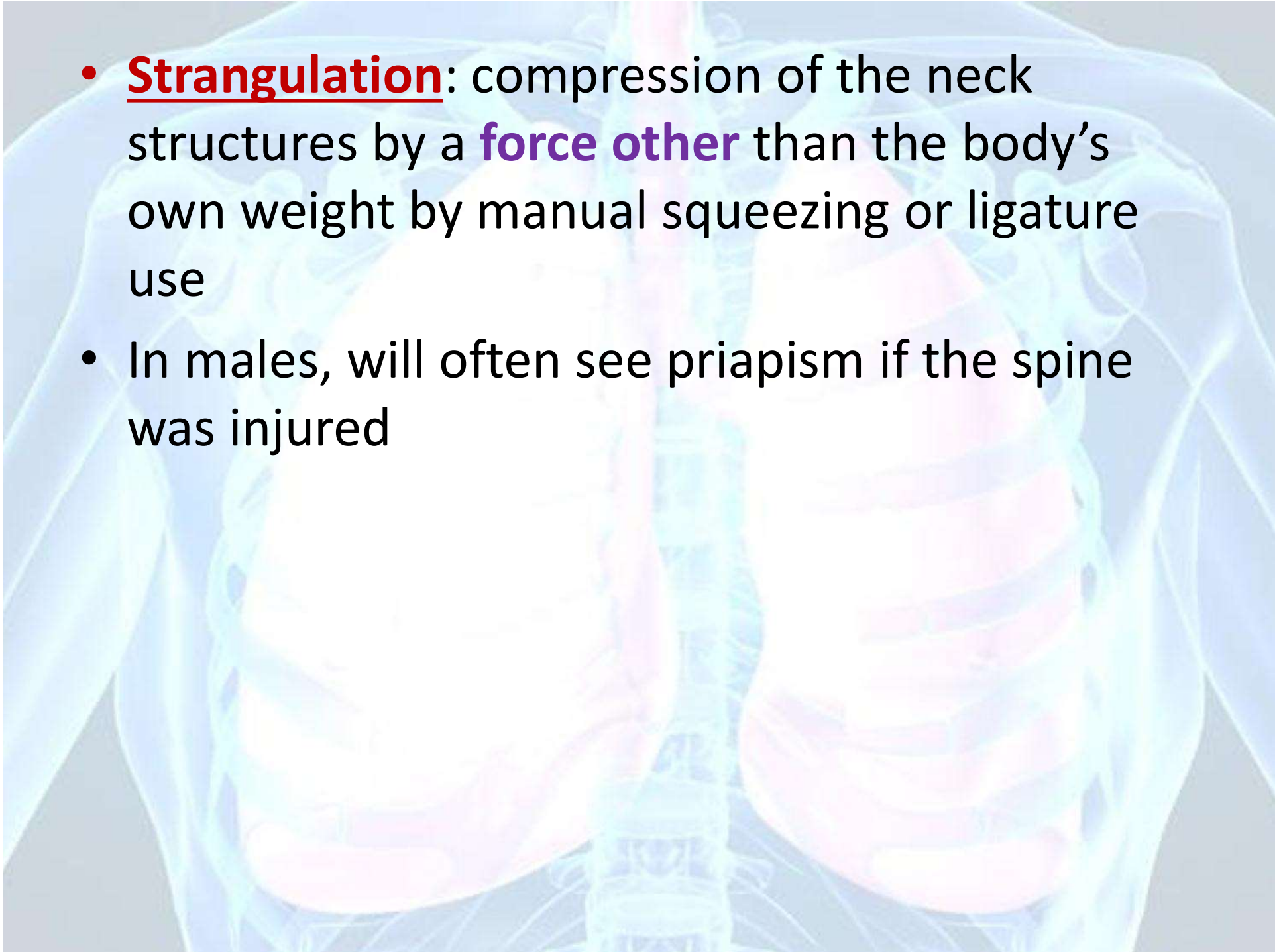
**OUT WITH PEOPLE
LIKE YOU**

DIYLOL.COM

Hanging and Strangulation

- **Hanging**: compression of the neck structures by a **ligature** placed around that neck that is constricted with the help of all or part of the body
 - Body **does not** need to be fully suspended

- **Strangulation**: compression of the neck structures by a **force other** than the body's own weight by manual squeezing or ligature use
- In males, will often see priapism if the spine was injured



EXAMINING THE CLUES



Death by asphyxiation results from air being prevented from reaching the lungs.



A victim of strangling often dies because the supply of blood and oxygen to the brain is cut off.

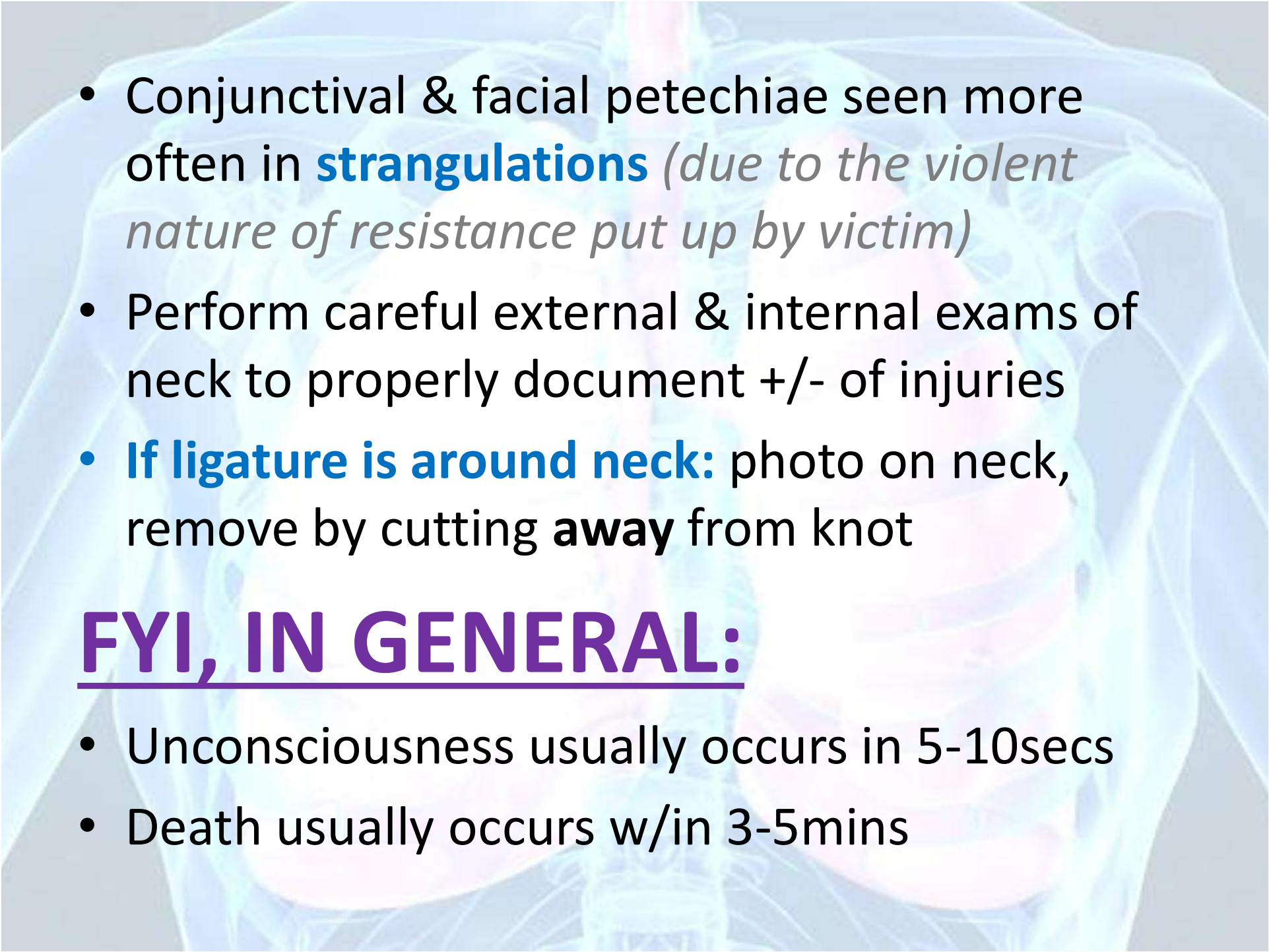
EXAMINING THE CLUES



Excess pressure on the vagus nerve during strangulation can cause it to send a signal to the brain ordering the heart to stop beating.



Separation of the vertebrae can rupture blood and tear the spinal cord, causing instant death.

- 
- Conjunctival & facial petechiae seen more often in **strangulations** (*due to the violent nature of resistance put up by victim*)
 - Perform careful external & internal exams of neck to properly document +/- of injuries
 - **If ligature is around neck:** photo on neck, remove by cutting **away** from knot

FYI, IN GENERAL:

- Unconsciousness usually occurs in 5-10secs
- Death usually occurs w/in 3-5mins

Hanging Ligatures

- In males, will often see **priapism** if the spine was injured
- In most hangings, a near-**circumferential ligature abrasion furrow** wraps around the neck
- On the sides of neck, the ligature abrasion extends upwards & forms an **inverted “V”** in the back of the neck or side of head
 - “V” shows where the knot of noose is
- Document ligature abrasion

Position of the ligature mark

- The **geometry** of the mark is important to interpret the fatal events.
- In cases of suicide, the ligature typically **does not** have a “**crossover**” mark.
- In cases of homicide, the “crossover” **is** evident.
- The cross may be at the side, front or back depending on the positions of the victim and assailant.

Hanging and Strangulation

- **Hanging**: the ligature furrow is usually located above the thyroid prominence & angles upward from the front to back of neck
 - No other injuries are found on neck
- **Strangulation**: the ligature furrow is usually horizontal & located at or below the thyroid prominence
 - Nail marks; defense scratches

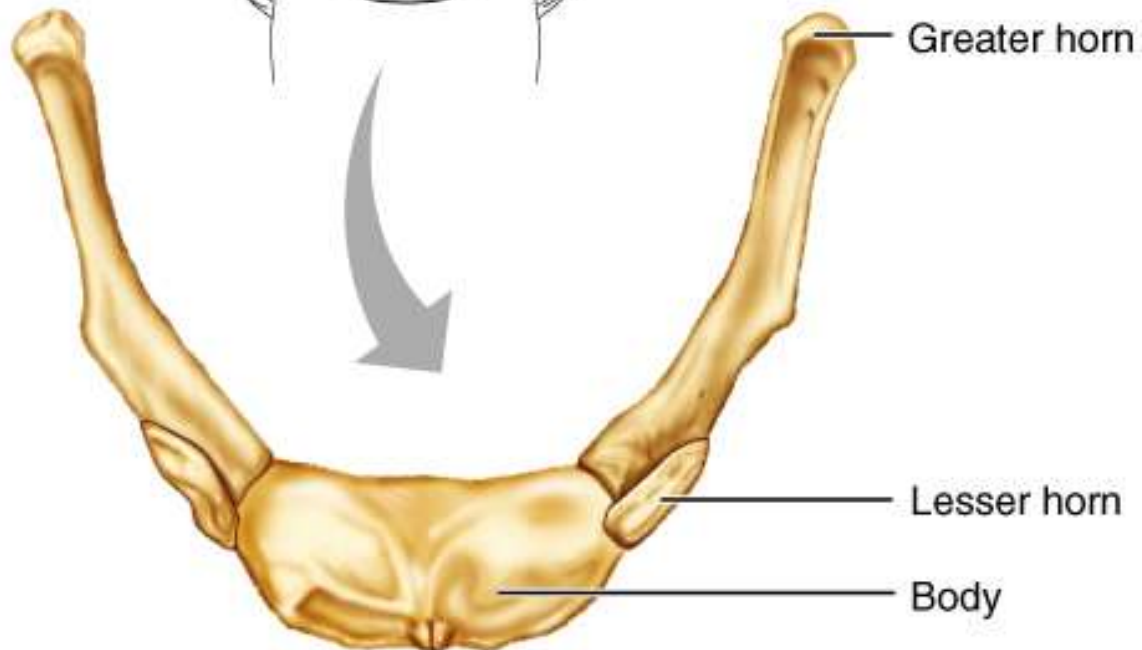
Autopsy Findings- Hangings

- Tongue partially protruded
- If suspended: prominent lividity & petechiae on the lower legs or bottom of feet
- Hyoid bone may be broken
- Passage of urine, feces, or seminal fluids

Petechiae on legs
& feet are called
TARDIEU SPOTS



HYOID
BONE



Copyright © 2001 Benjamin Cummings, an imprint of Addison Wesley Longman, Inc.

Strangulation –

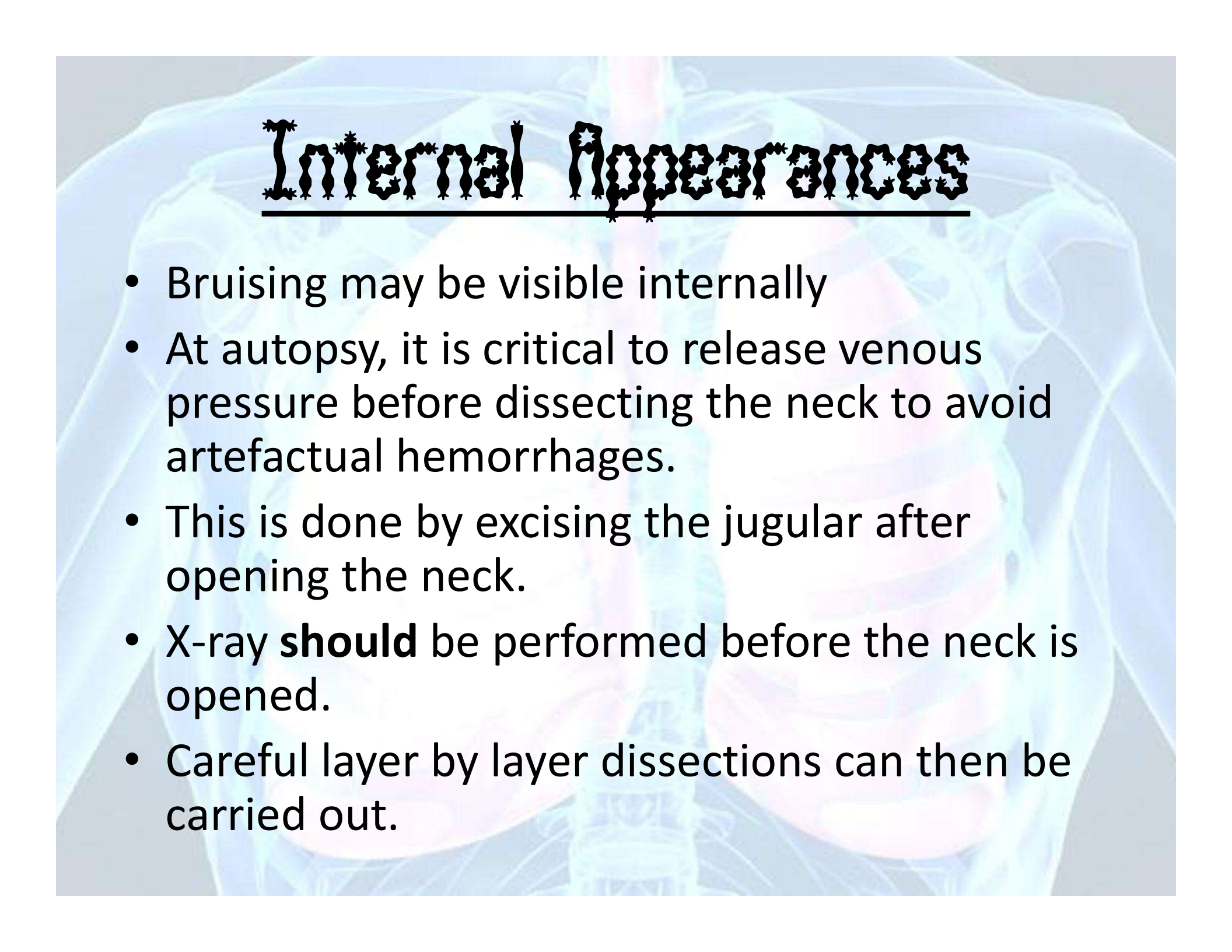
hyoid bone may be fractured and displaced **inwards**

Hanging –

anteroposterior compression fracture is seen; bone may be fractured & displaced **outwards**

STRANGULATION

- Usually homicidal
- Can be done manually or w/ligature
- Pressure on neck occludes carotid arteries
- A rape kit should be collected as well
- Evaluate neck: detailed anterior & posterior neck dissections should be performed



Internal Appearances

- Bruising may be visible internally
- At autopsy, it is critical to release venous pressure before dissecting the neck to avoid artefactual hemorrhages.
- This is done by excising the jugular after opening the neck.
- X-ray **should** be performed before the neck is opened.
- Careful layer by layer dissections can then be carried out.