

Trauma-Free TreatmentSM

Trauma-Free TreatmentSM protocols address concussion related signs and symptoms using a set of neuro-muscular manipulation procedures.

Treatment Outcomes:

Cranial nerve dysfunction improved/restored.

Cranio-cervical muscle tension is reduced.

Symptomatology reduced on assessment forms.

[PCS, DHI, etc.]

Effectiveness of treatment application is evaluated by:

physiological response -
a sigh and/or exaggerated exhalation

verbal response -
“How does this technique feel?”

Occipital Traction - Seated

Trapezius and Sub-occipital correction

- Cradle and lift the occiput away from C1
- Slowly add movements in each plane to enhance release of tension.



Occipital Traction - Supine

Trapezius and Sub-occipital correction

- Pull the occiput away from C1-2 using a series of gentle traction and release movements with slight flexion of the skull.
- add slow movements in each plane to enhance release of tension.



Occipital Nodding

Sub-occipital and Trapezius correction

- Open the occiput-C1 junction using gentle nodding motions
- Progress thru each cervical level by flexing the head to the chest



A-P Cranial Compression

[Reduces symptoms of sinuses, dizzy, foggy, balance, vision]

Patient Position

- seated or standing with head slightly flexed

Doctor Stance

- side of patient

Contact Hand

- Frontal bone above glabella
- Occiput bone below EOP

Line of Drive

- Squeeze gently and hold for 1-3 seconds then release.
- Repeat 3 times.



Temporalis Correction

Patient Position

- seated or standing

Doctor Stance

- facing or behind patient

Contact Hand

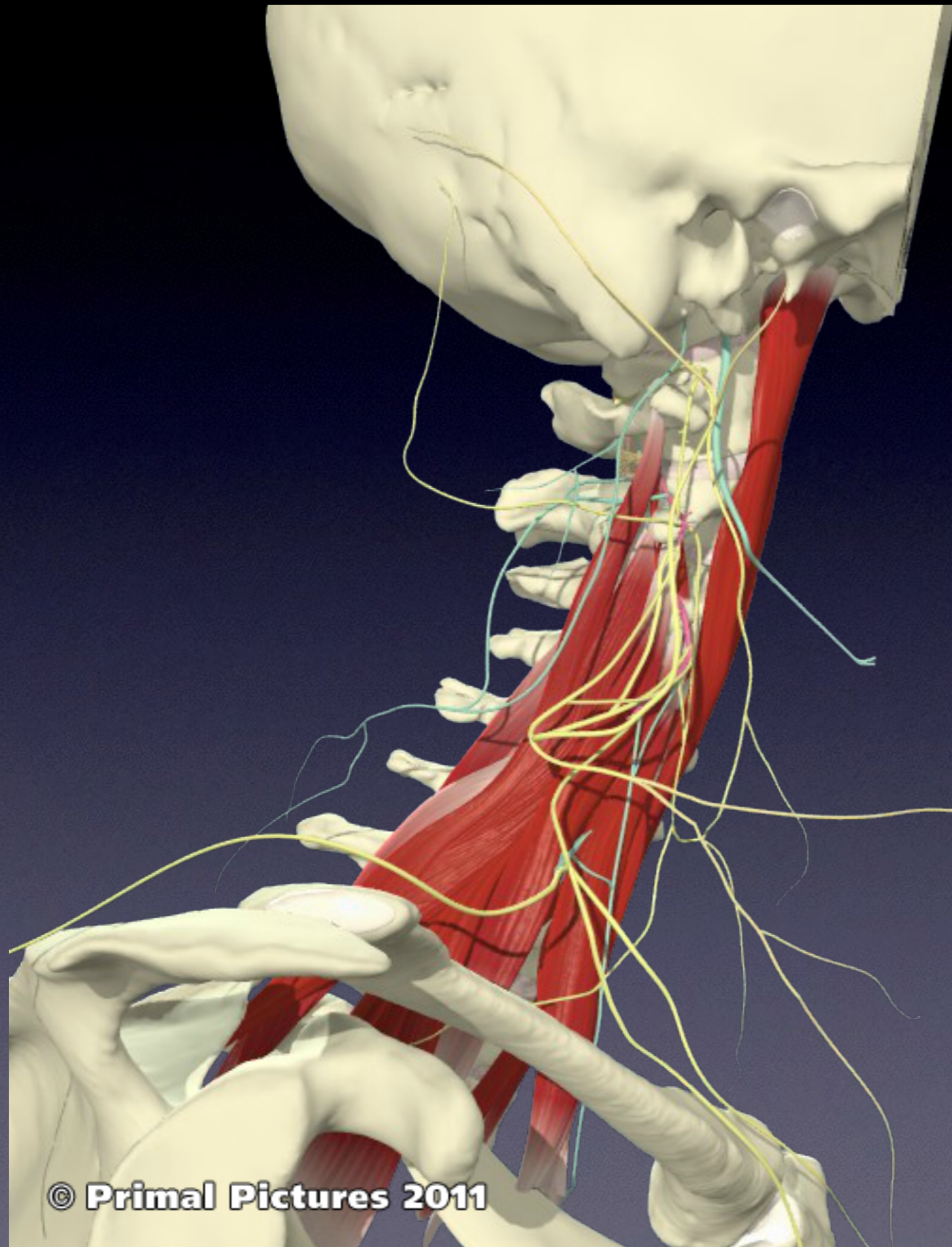
- 4 fingers approximated

Line of Drive

- separate fingers while pushing upward into the superior border of the parietal bone and hold for 3 to 5 seconds, OR...
- pin into muscle belly and move jaw around
- Muscle tension and guarding create jaw clenching
- Reduces symptoms of headache, confusion, ear pain/tinnitus, fogginess, balance, tmj



How/Where do concussions irritate nerves?



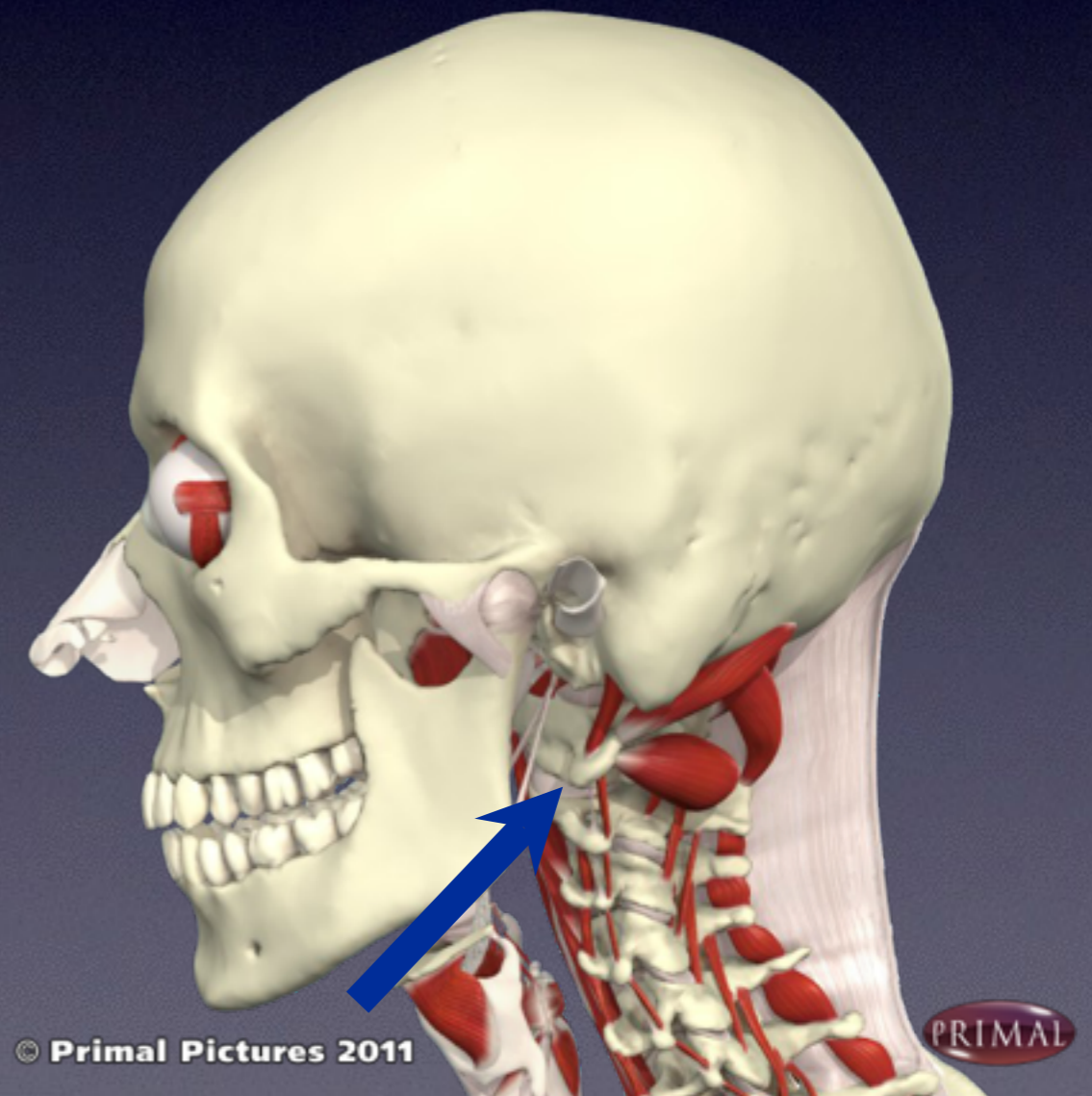
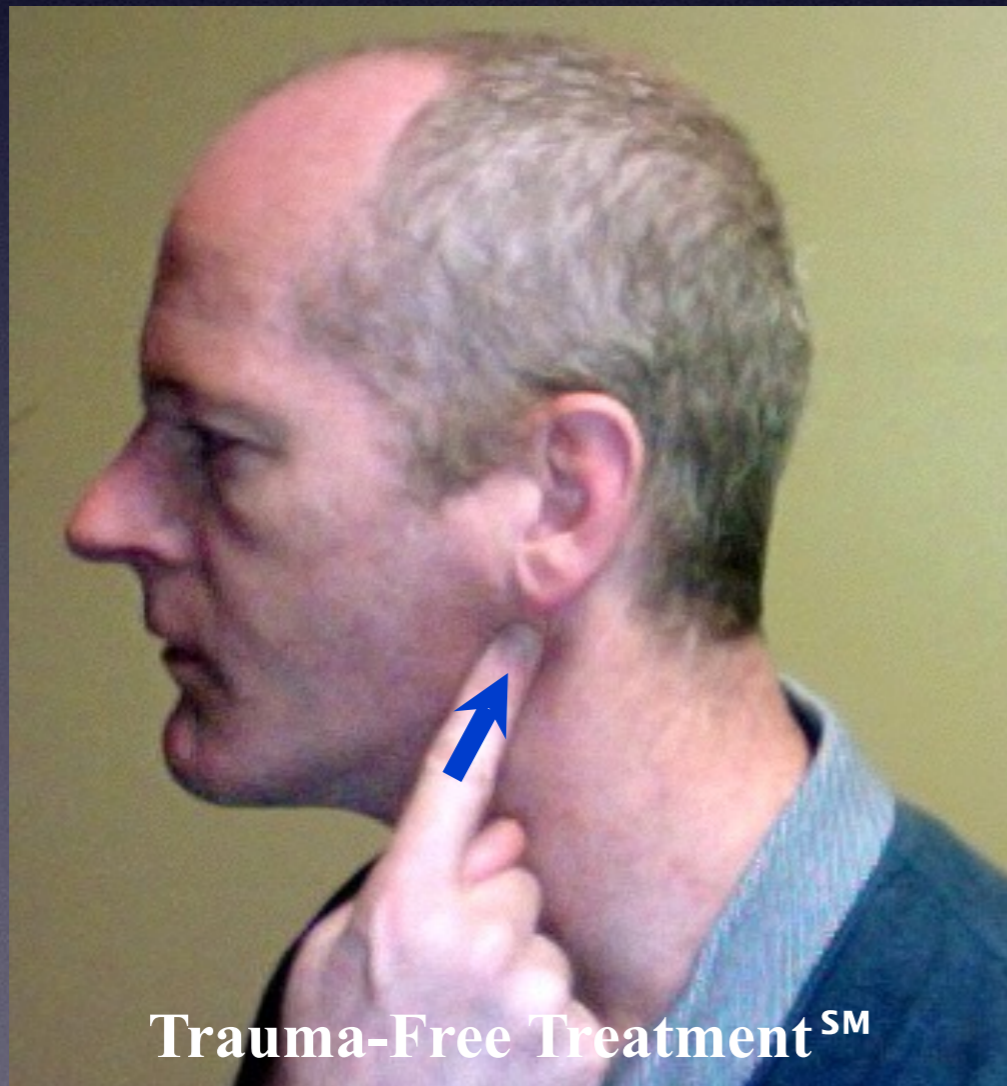
C1 dysfunction affects:

- 1) Vagus nerve
(CNX - heart and digestive)
- 2) Spinal Accessory
(CNXI - SCM and trapezius)
- 3) Hypoglossal nerve
(CNXII - tongue)
- 4) Auricular nerve
(hearing, tinnitus)
- 5) Occipital nerve
(headaches)

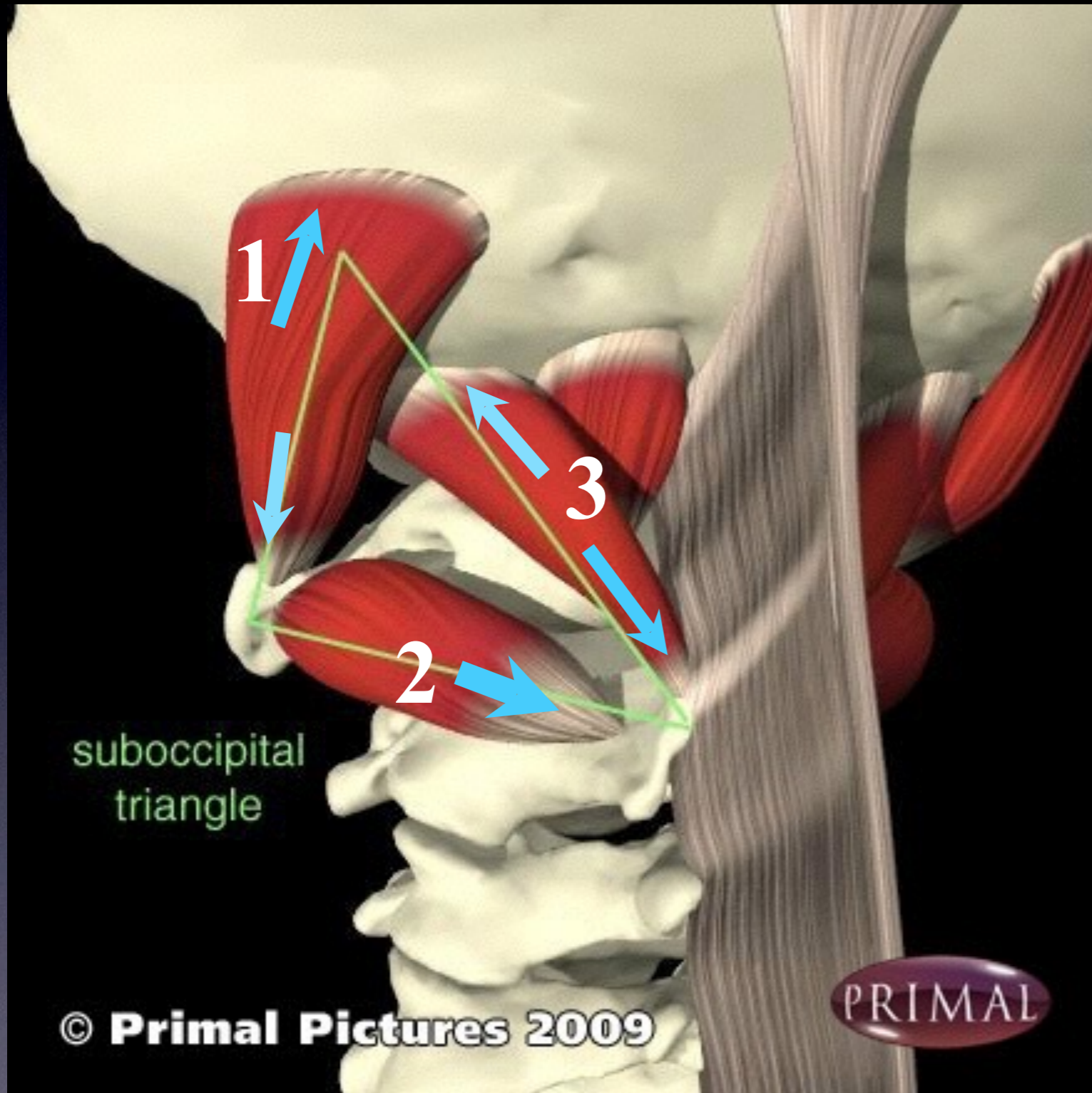
Symptoms - nausea, dizzy, foggy,
balance loss, earaches, vision, blood
pressure, etc.

Non-thrust Manipulation of First Cervical

- **Contact Point** - Anterior portion of the transverse process.
[The point of maximum tenderness is the area of most dysfunction]
- **Line of Drive** - Press A-P, L-M, I-S
- **Pressure** - Hold 3-5 seconds at patient tolerance, Pin and Stretch
- **Results** - reduces symptoms of dizzy, foggy, balance, hearing, swallowing, vision, blood pressure



Suboccipitals



1) Obliquus Capitis superior

Origin - Transverse process of C1

Insertion - Occiput

Action - extension, lateral rotation

2) Obliquus Capitis inferior

Origin - Spinous process of C2

Insertion - Transverse process of C1

Action - Rotation around the Dens

3) Rectus Capitus Posterior Major

Origin - Spinous process of C2

Insertion - Occiput

Action - extension, rotation and lateral flexion

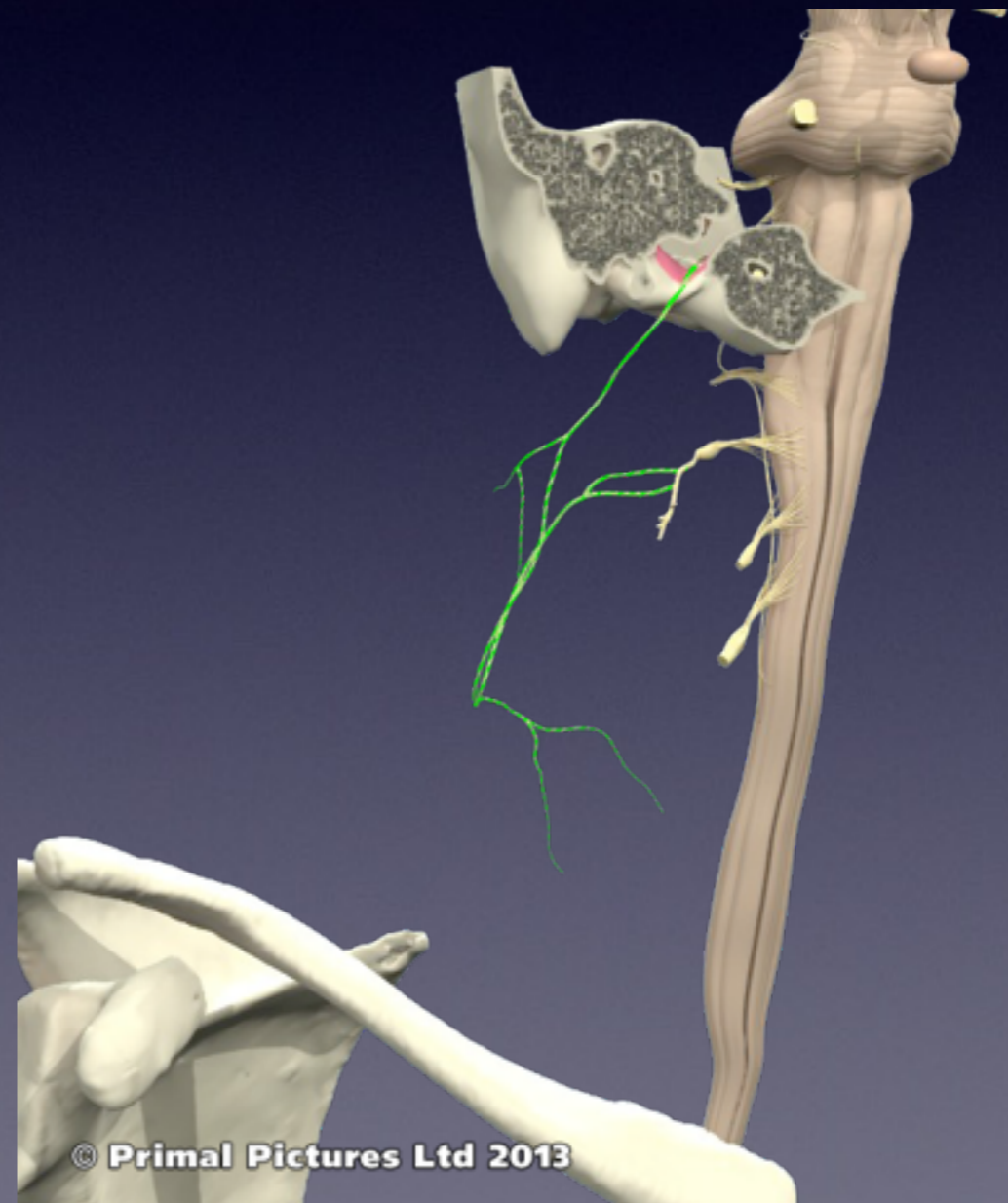
How Do You Correct Cranial Nerve Entrapment?

**Do 'sliders' slide and 'tensioners' tension?
An analysis of neurodynamic techniques and
considerations regarding their application.**

Coppieters MW, Butler DS. 2008. Manual Therapy. 2008
Jun;13(3):213-21. Epub 2007 Mar 30. PMID 17398140

Correcting Nerve Entrapment

- Nerve fibers have elastic properties and should slide freely through bones, muscles and fascia.
- Use mechanical nerve gliding exercises [dental floss approach]
- Activate eyes, tongue, swallow, vocal, facial muscles, scm/traps to pull on cranial nerves and mobilize them.



PRIMAL

Crazy Brain Stretch

- Neuroplasticity - connect as many neurons as possible, without overloading an injured/fragile system.
- floss cranial nerves to reduce concussion symptoms

Activate:

- 1) traction eustachian tubes
- 2) vocal [say “aaah!”]
- 3) facial [squeeze muscles]
- 4) tongue [wiggle side to side]
- 5) eyes [circumduct both directions]



- Begin with strongest functions
- Slowly add weaker functions
- Progress to do all simultaneously

- *Perform for 5-10 seconds
- *Repeat 1-3 times per day