OSTEOPATHIC CONSIDERATIONS AND MANIPULATIVE TREATMENT FOR HEADACHE

Millicent King Channell, DO, FAAO

Associate Professor

Chair, Dept. of OMM

Rowan-SOM

OBJECTIVES

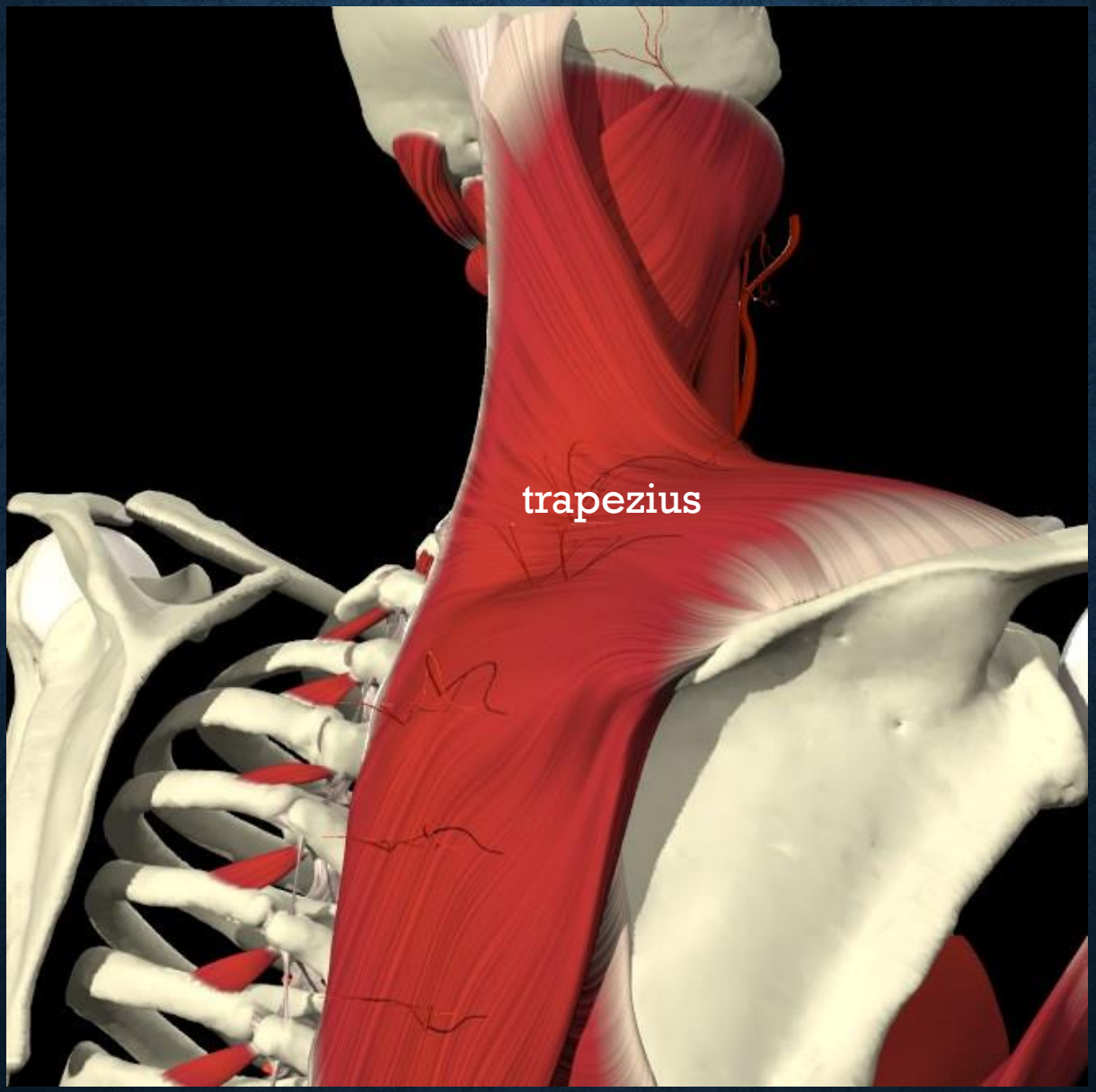
- Briefly review the different types of headache
- Review relevant anatomy and their potential contributions to headache
- Describe a focused structural exam that could be done when evaluating headache
- Create an example focused manipulative treatment plan

HEADACHES DEFINED (PREVALENCE %)

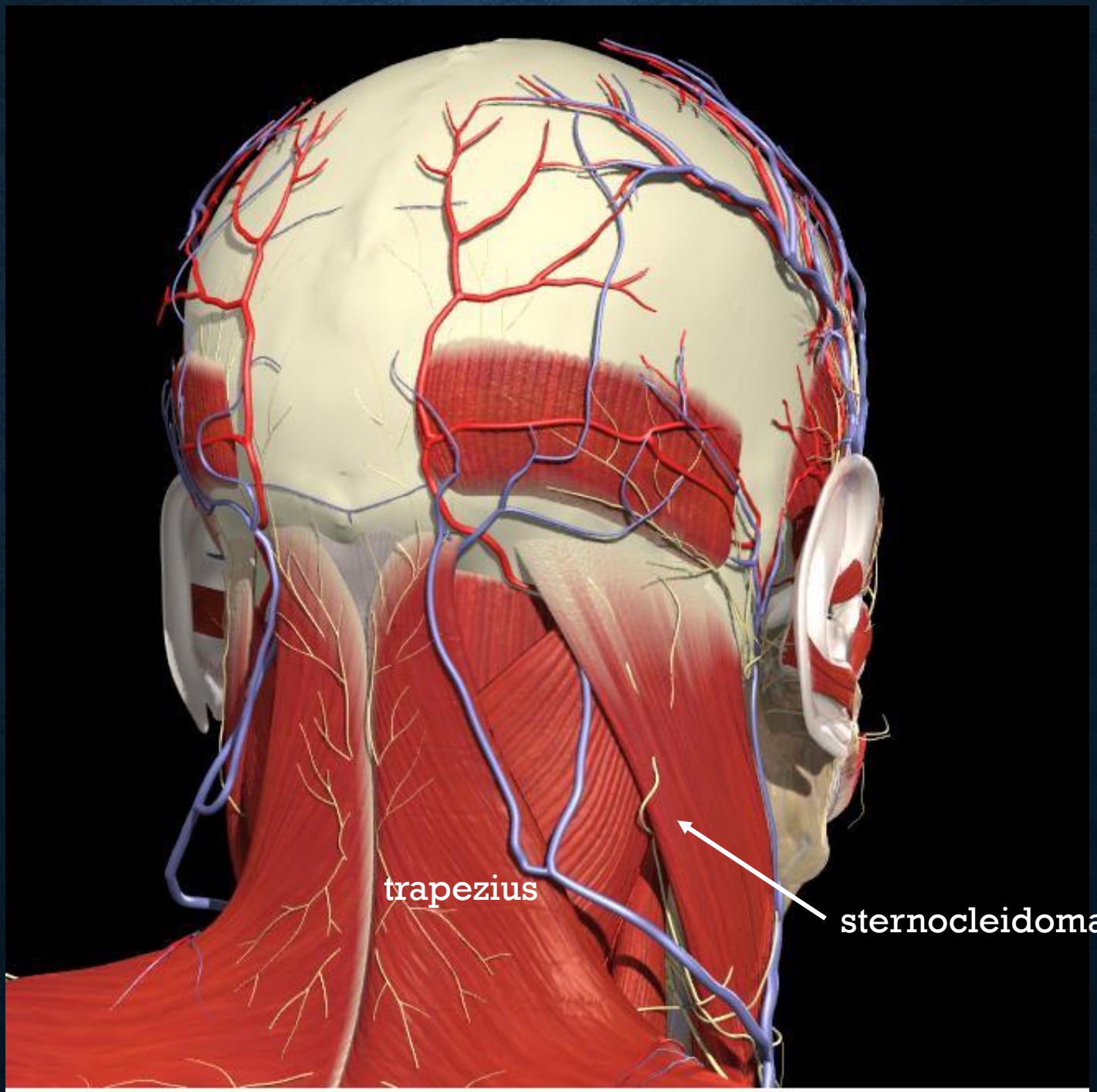
- Tension-type headache (69)
- Migraine (15)
- Exertional headache (1)
- Cluster headache (0.1)

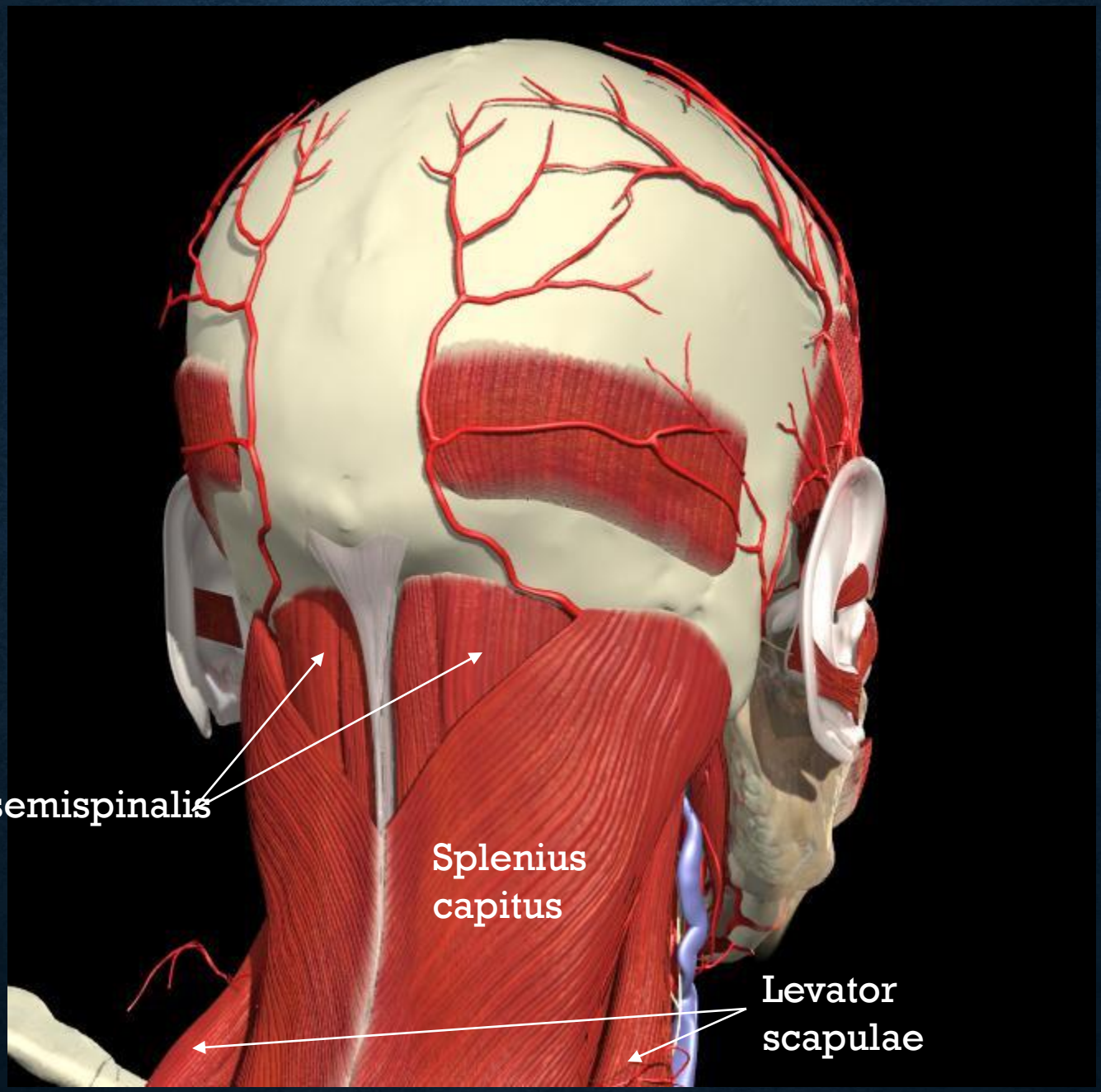
BASIC CONSIDERATIONS

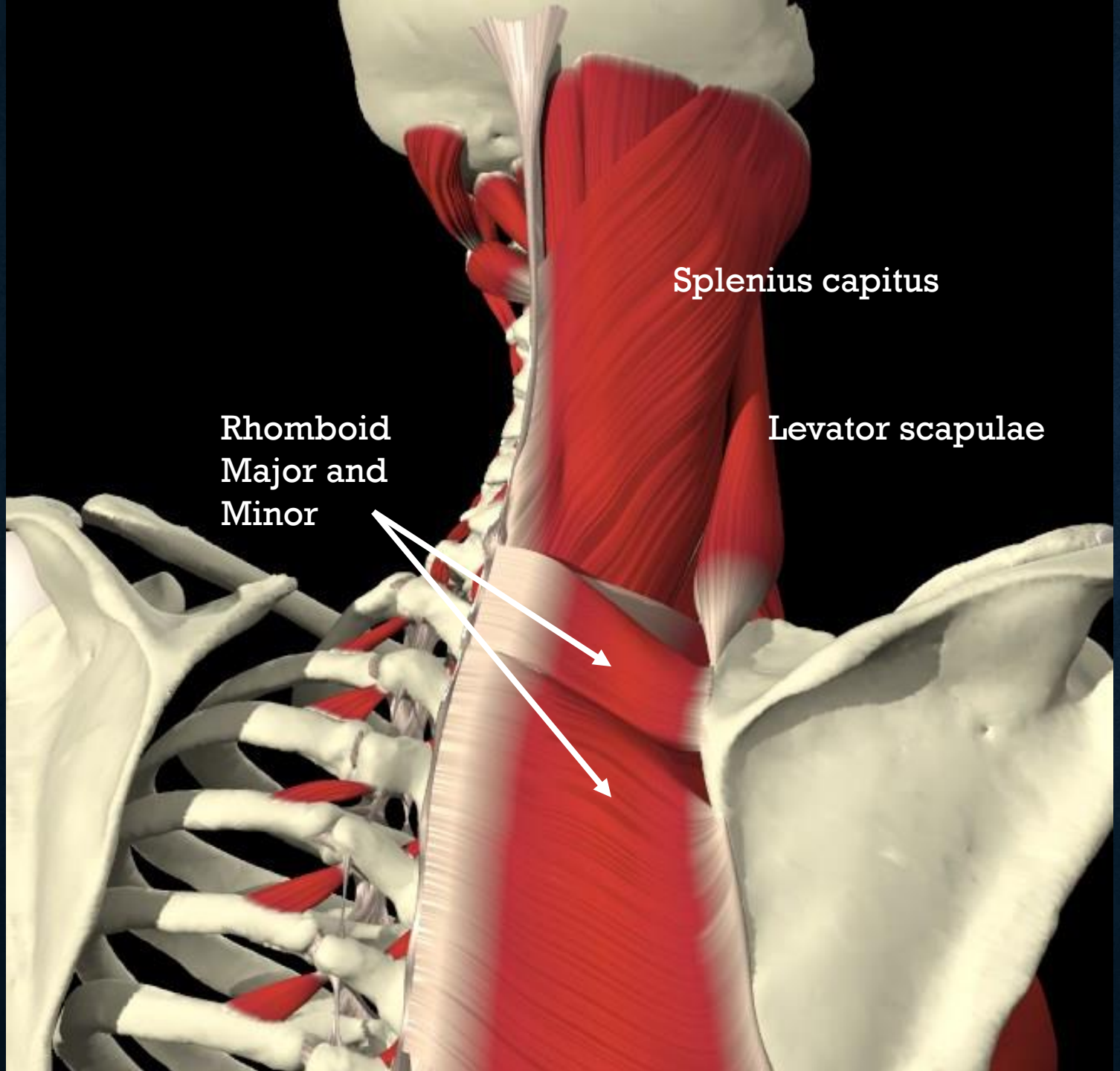
- Muscular attachments
- Autonomic contributions
- (Lymphatic drainage)

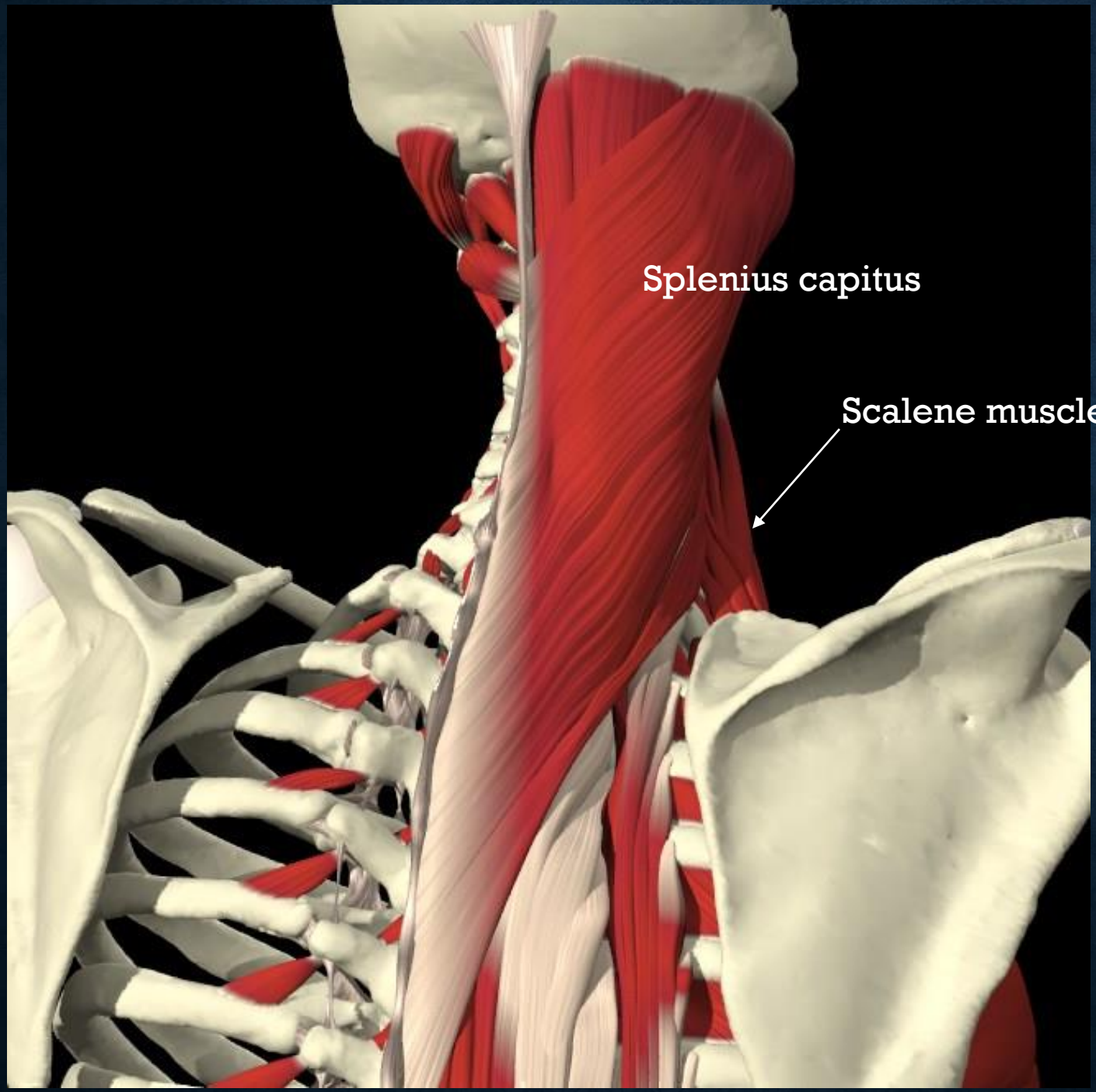


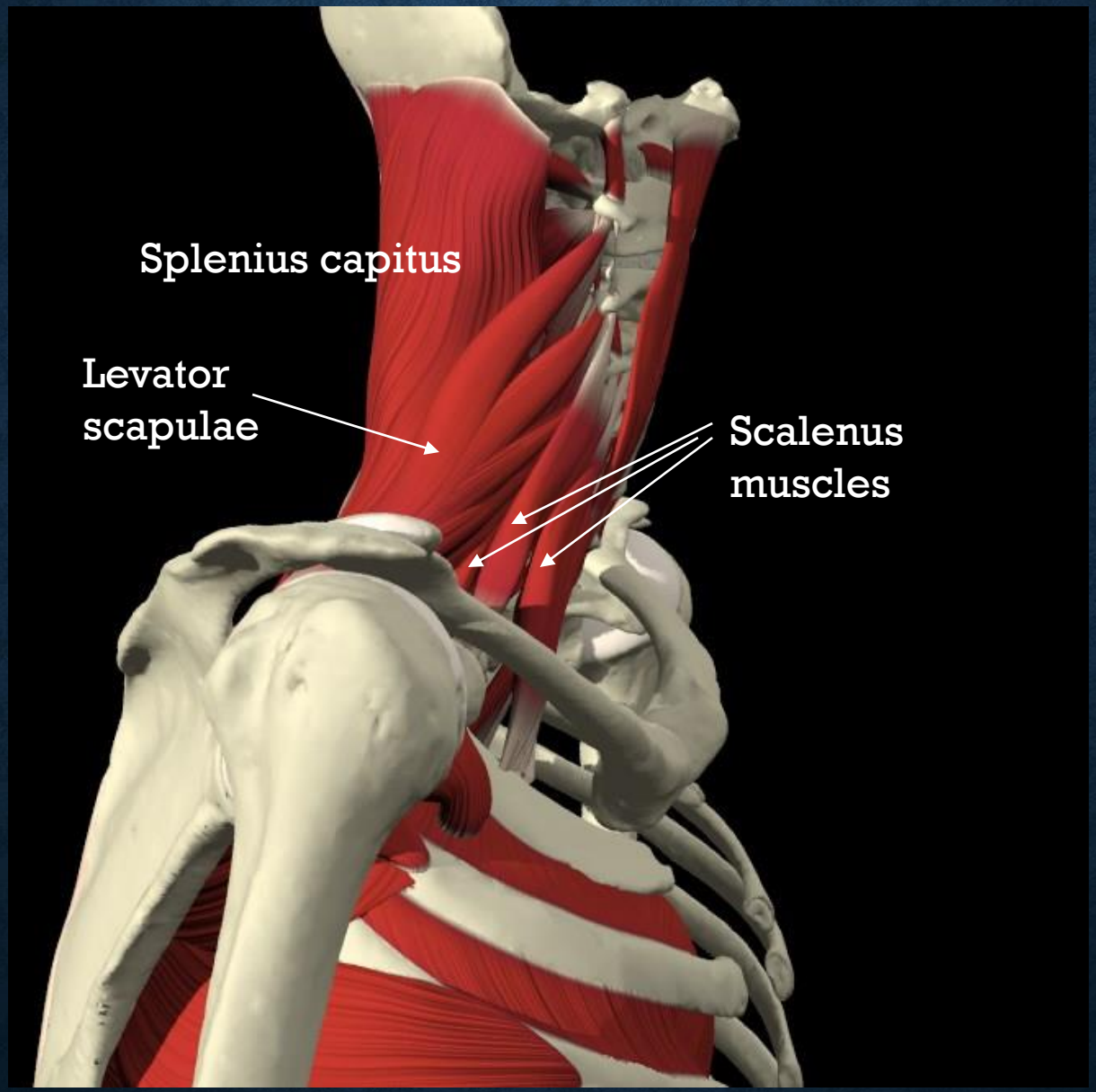
Nn:
Accesory n
(CN XI)

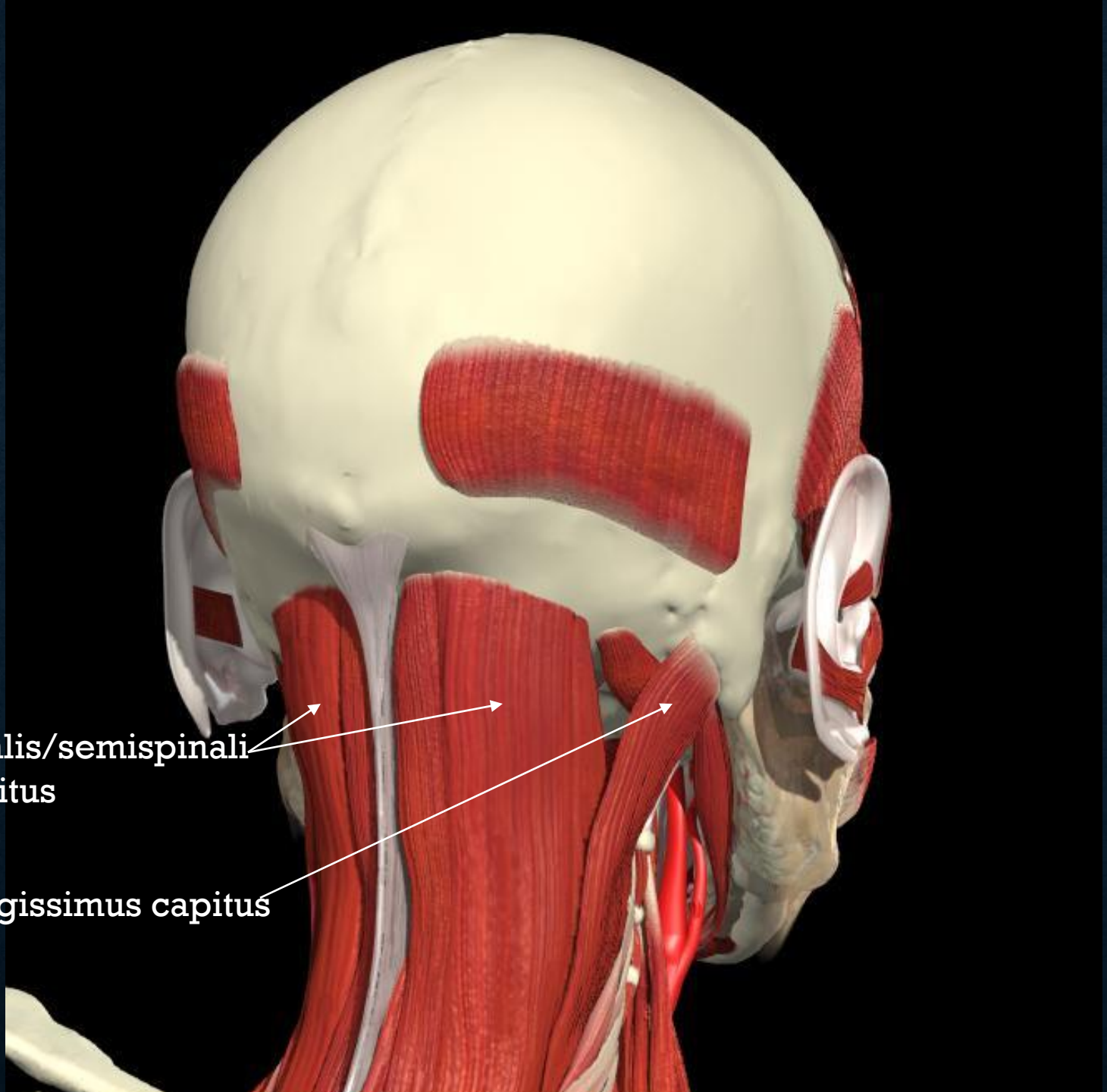

trapezius
sternocleidomastoid

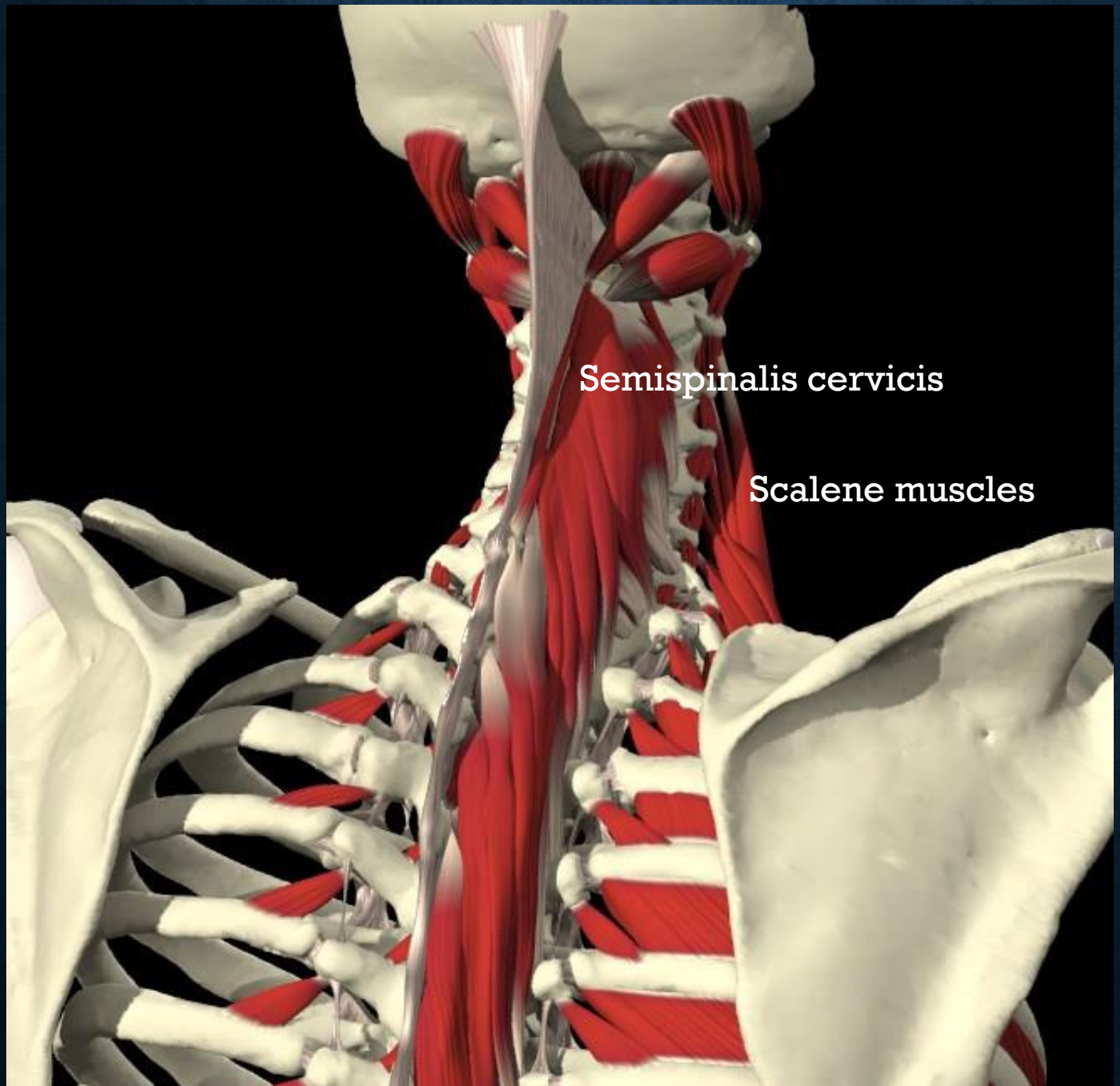

Spinalis/semispinalis capitus
Splenius capitus
Levator scapulae

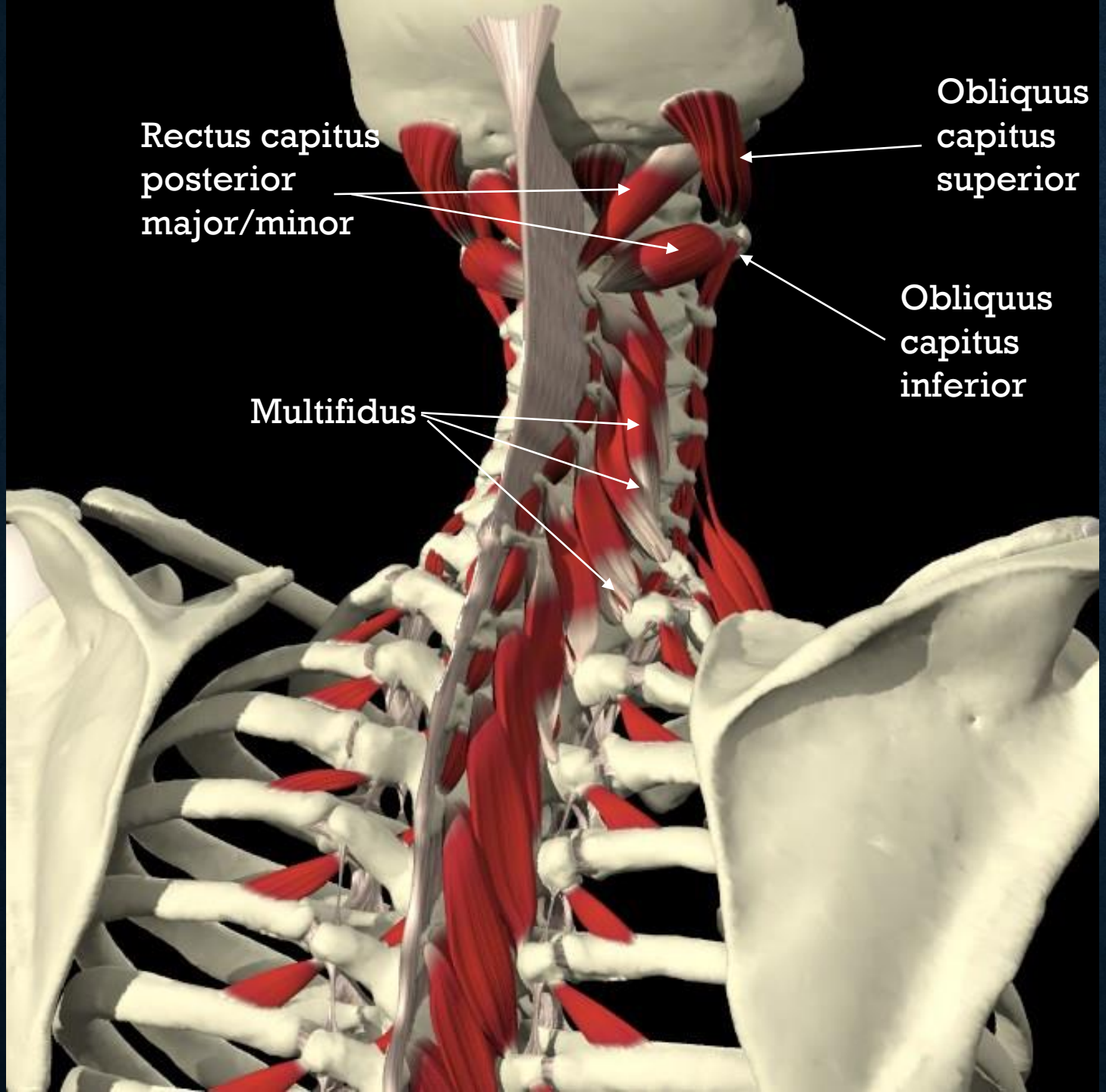

Splenius capitus
Rhomboid
Major and
Minor
Levator scapulae

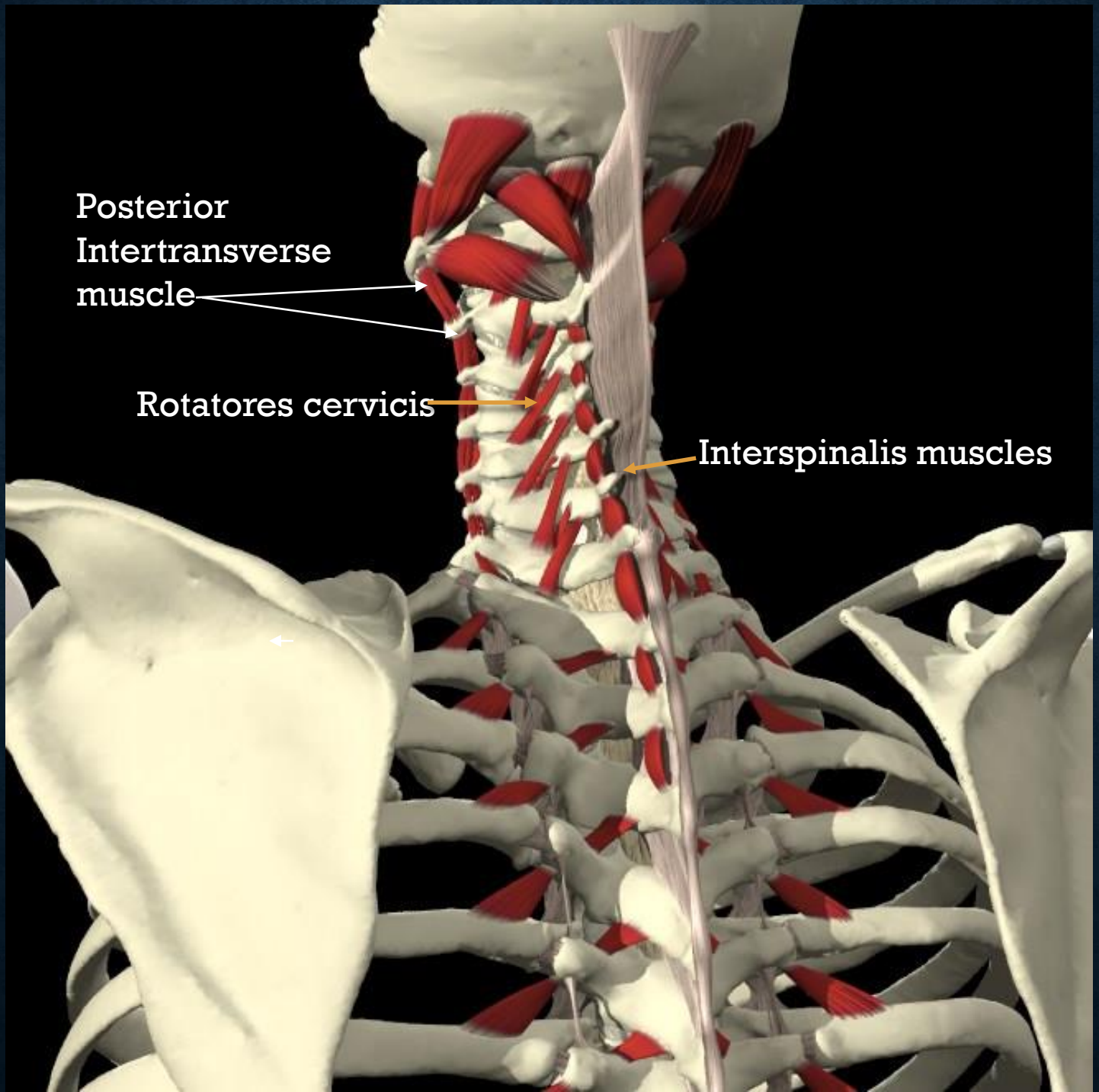

Splenius capitus
Scalene muscles


Splenius capitus
Levator scapulae
Scalenus muscles

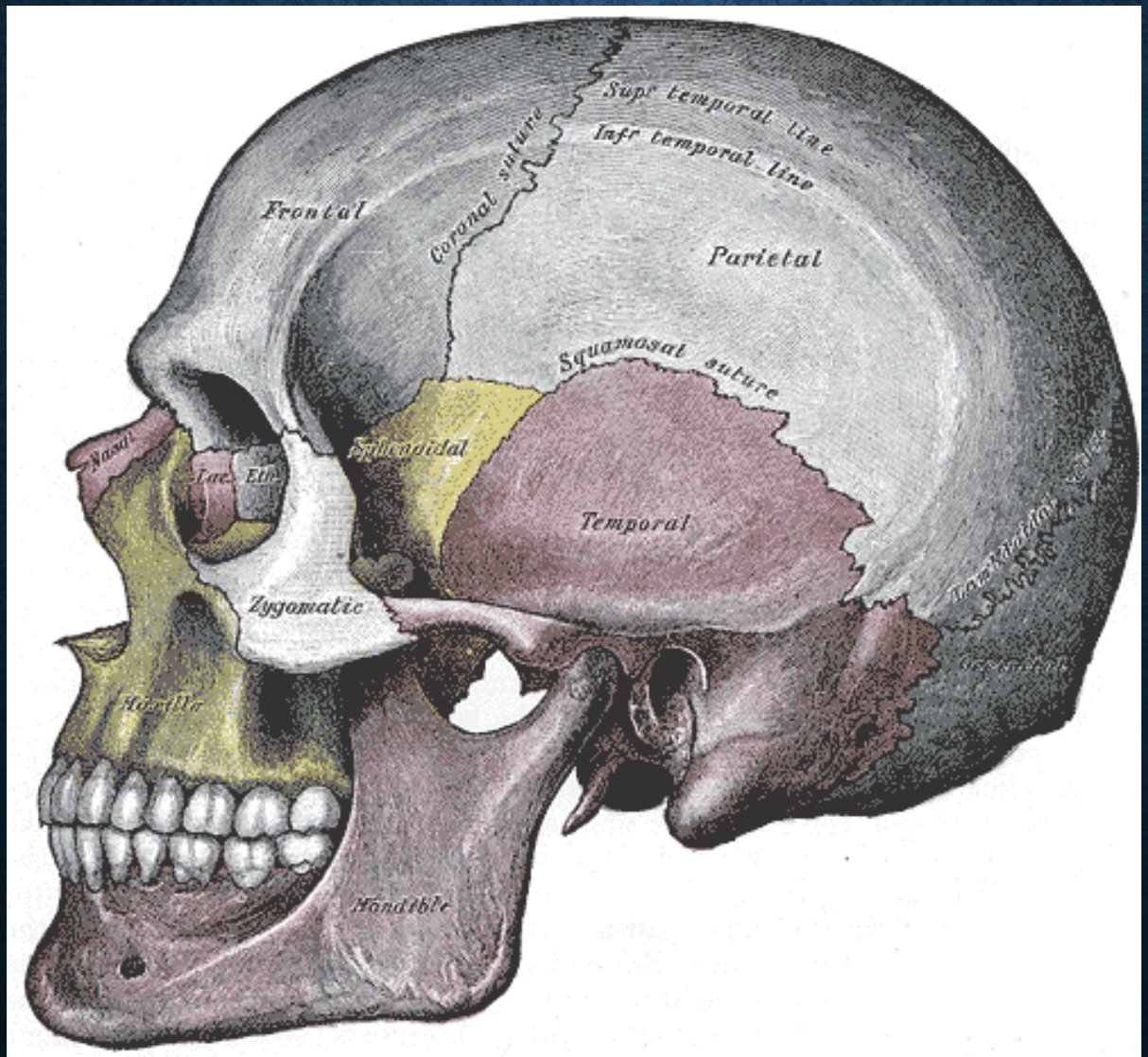

Spinalis/semispinalis capitus
Longissimus capitus


Semispinalis cervicis
Scalene muscles

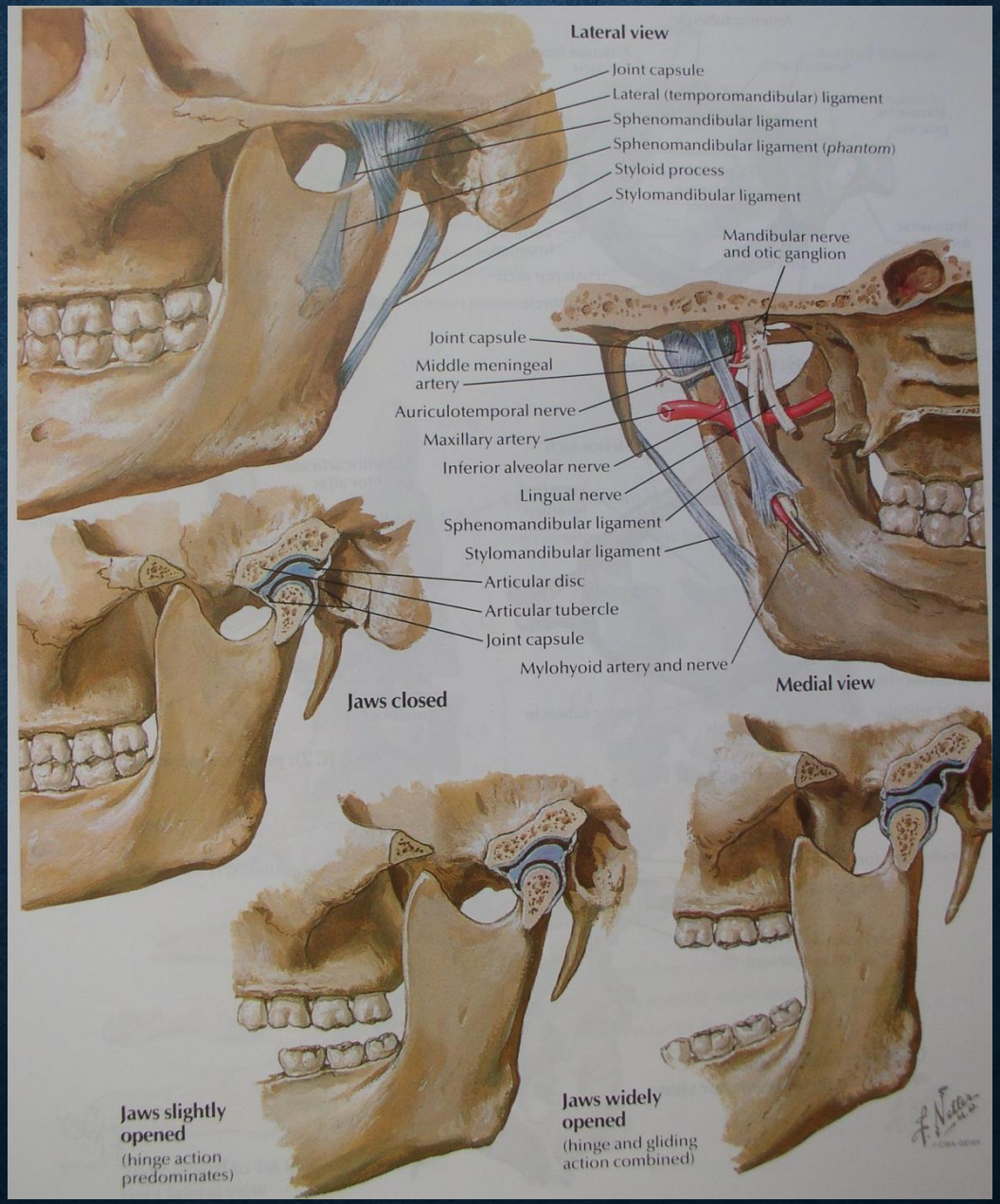

Rectus capitus posterior major/minor
Obliquus capitus superior
Obliquus capitus inferior
Multifidus


Posterior
Intertransverse
muscle
Rotatores cervicis
Interspinalis muscles

BONES OF THE SKULL

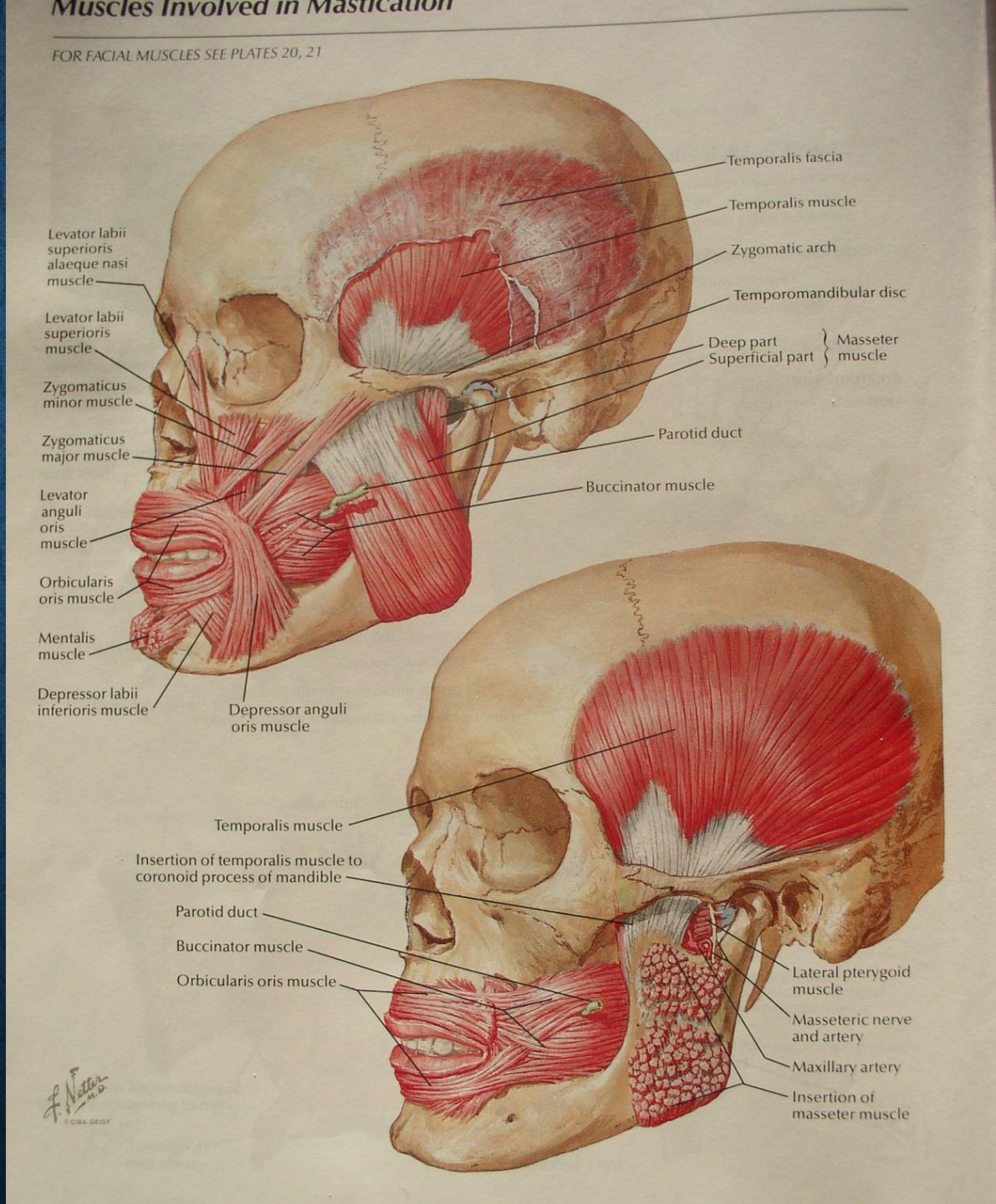


Temporomandibular Disorders



Closing
- Masseter
- Temporalis

Opening
- Strap Muscles
- Digastric
- Mylohyoid
- Geniohyoid
- Sternohyoid
- Omohyoid
- Thyrohyoid

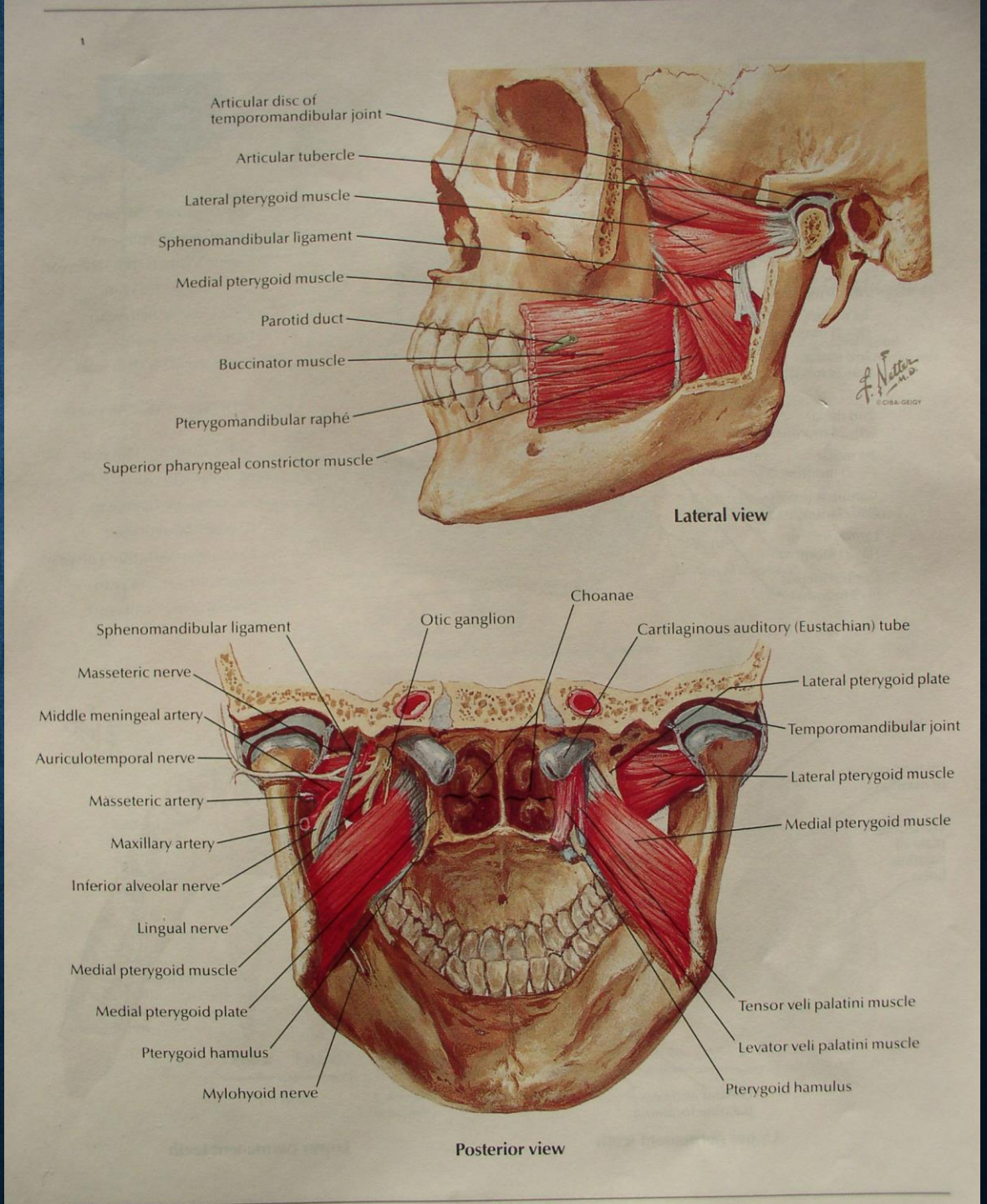


Closing

- Medial Pterygoid

Translational

- Lateral Pterygoid



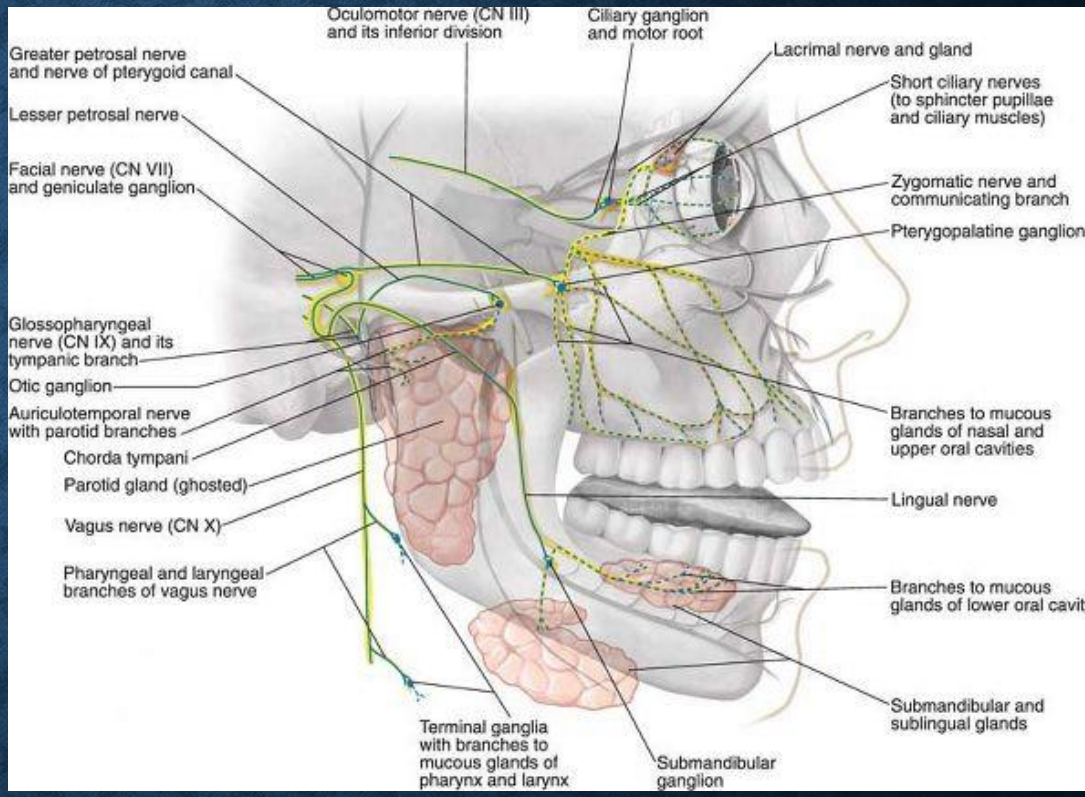
PARASYMPATHETICS

Oculomotor (CNIII)

Facial (CN VII), Glossopharyngeal (CN IX)

Increased tone=

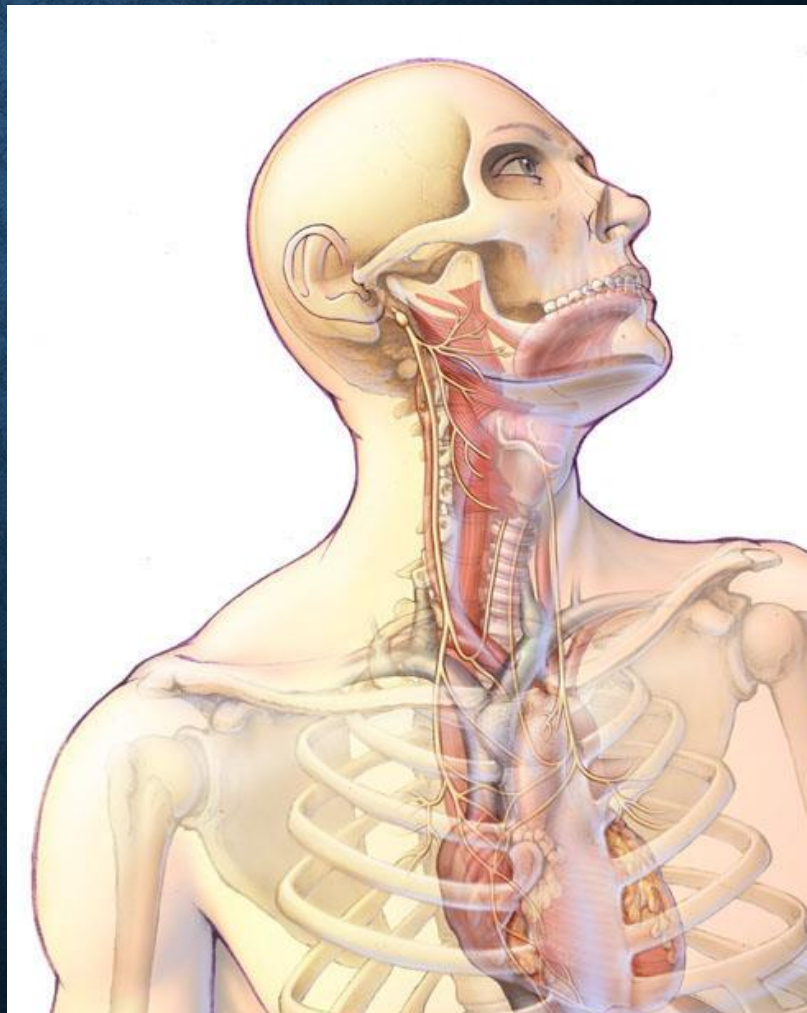
- contracts pupil,
- increased secretions of nasal, lacrimal and submandibular glands
- senses aortic blood pressure



SOMATIC DYSFUNCTIONS POTENTIALLY AFFECTING PARASYMPATHETICS

Vagus nerve (CN X):

- Compression of the:
  Occipitomastoid sutures
  Occipito-atlanto joint
- OA, AA, C2-
  - Rotated vertebra
  - Tenderpoints
  - Tissue texture changes over cervical pillars



SOMATIC DYSFUNCTIONS POTENTIALLY AFFECTING SYMPATHETICS

T1-5

- Tenderpoints
- Tissue texture changes over transverse processes
- Rotated vertebrae
- Increased tone= vasoconstriction and slight secretions of nasal, lacrimal and submandibular glands, increased blood flow to skeletal muscle

SOMATIC DYSFUNCTIONS POTENTIALLY AFFECTING MOTOR FUNCTION

C2-8 (Splenius, levator scapulae, scalene etc)

- Tenderpoints
- Tissue texture changes over cervical pillars
- Rotated vertebrae

FOCUSED STRUCTURAL EXAM

- Head/TMJ
- Cervicals
- Ribs
- Thoracics
- Shoulder

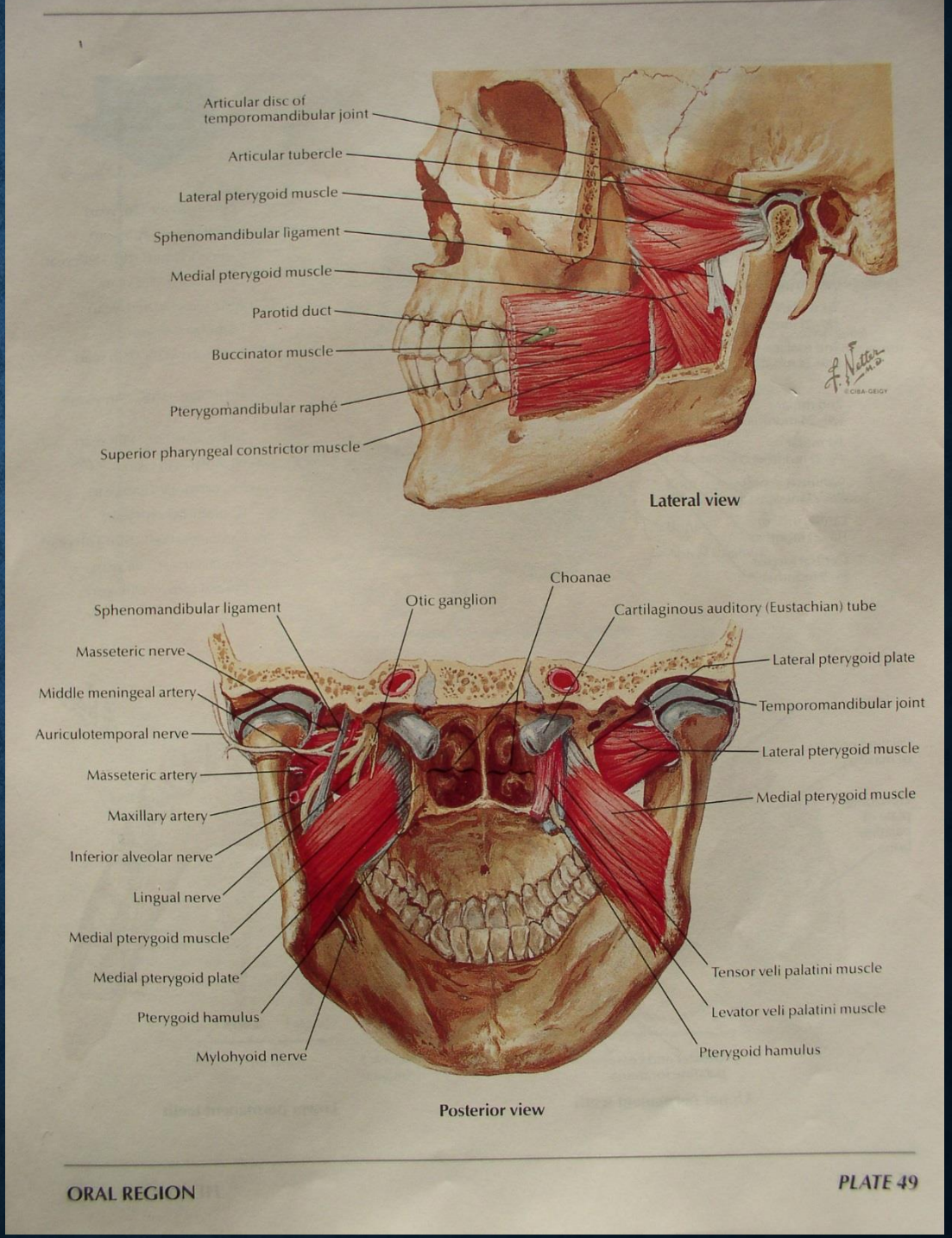
TYPES OF OMT TO CONSIDER

- **Direct inhibition**
- Counterstrain
- **Myofascial release**
- Muscle Energy
- HVLA
- **Osteopathy in the Cranial Field**
- **PINS**

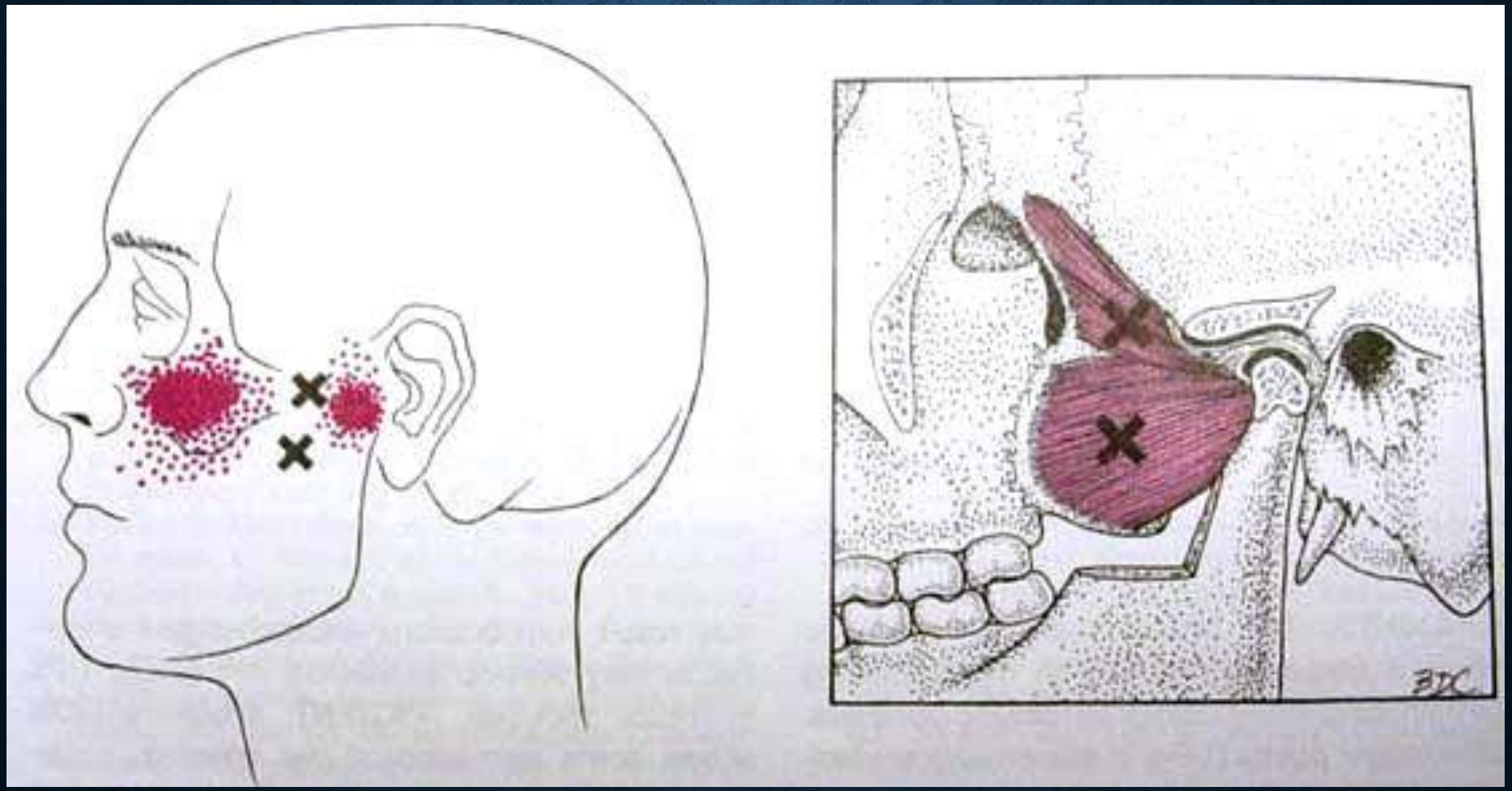
Direct Inhibition

Medial Pterygoid

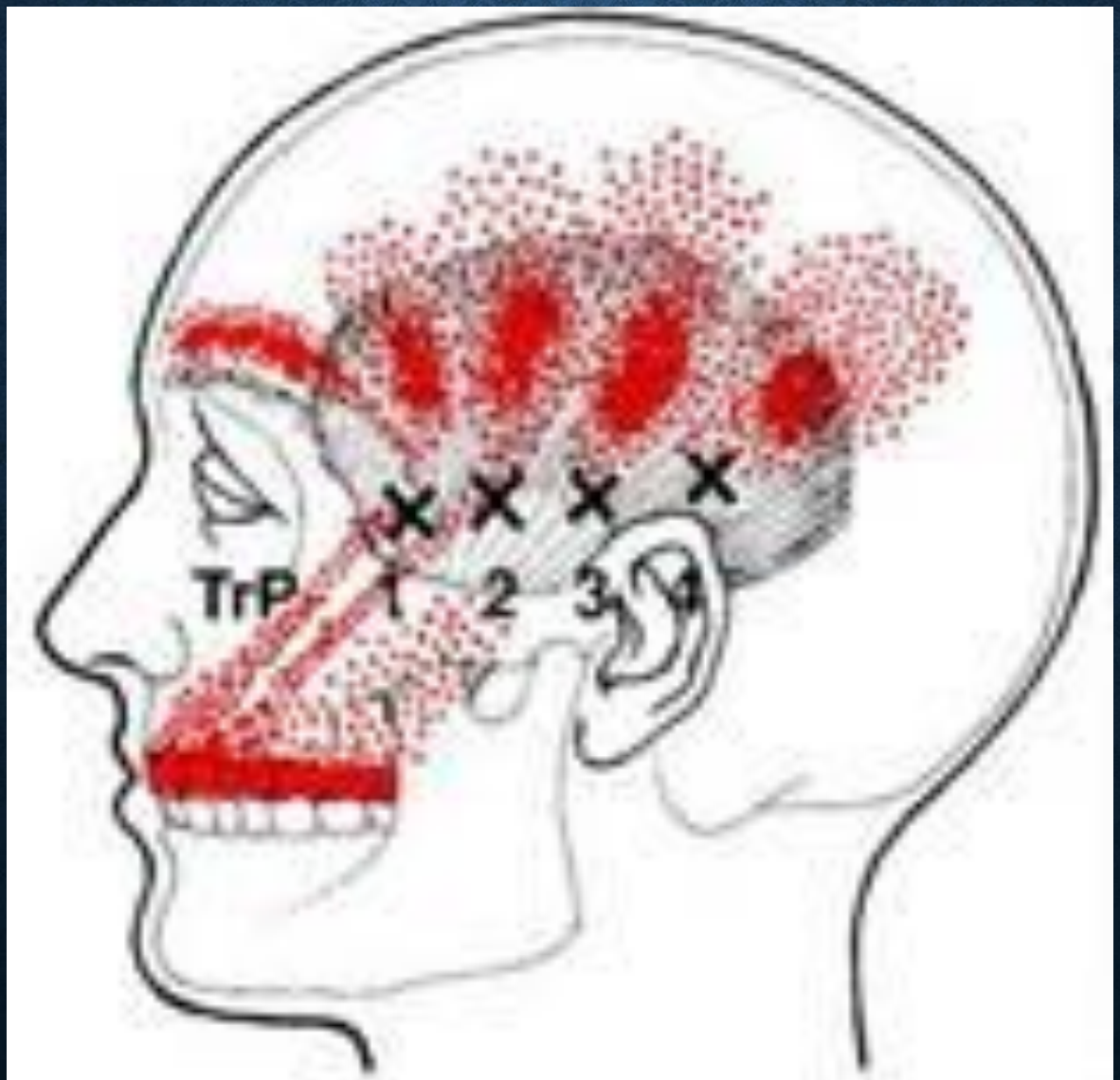
Lateral Pterygoid



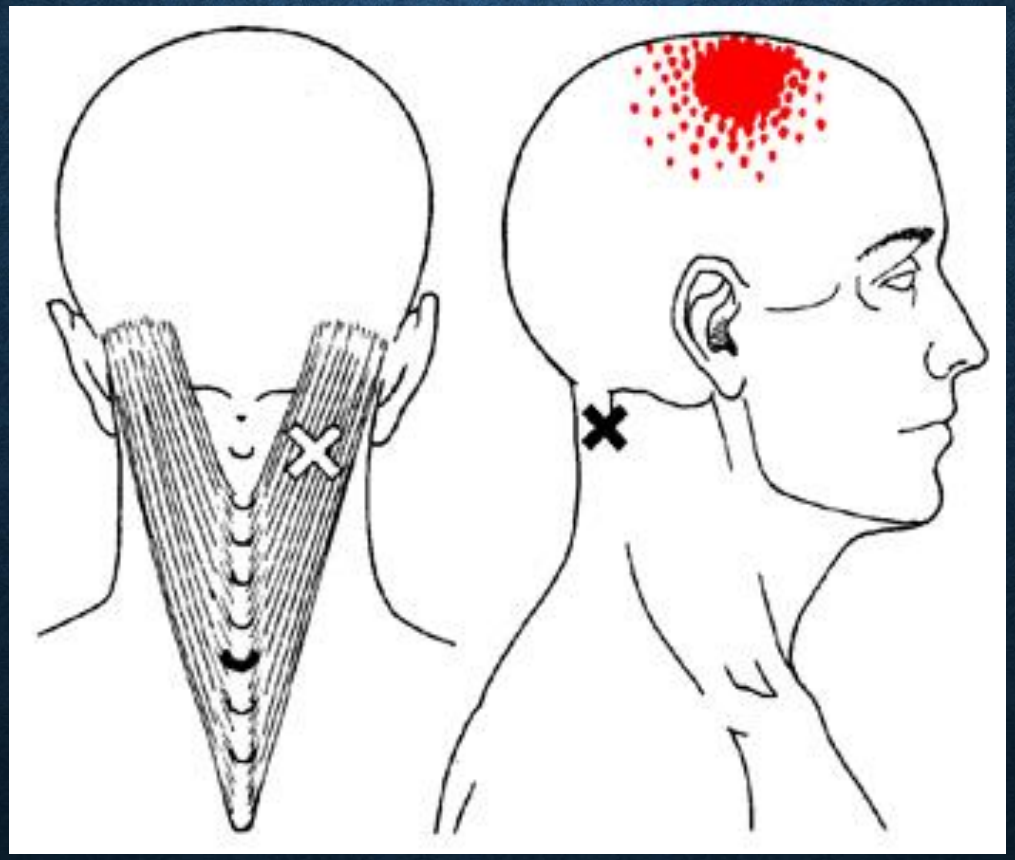
LATERAL PTERYGOID TRP



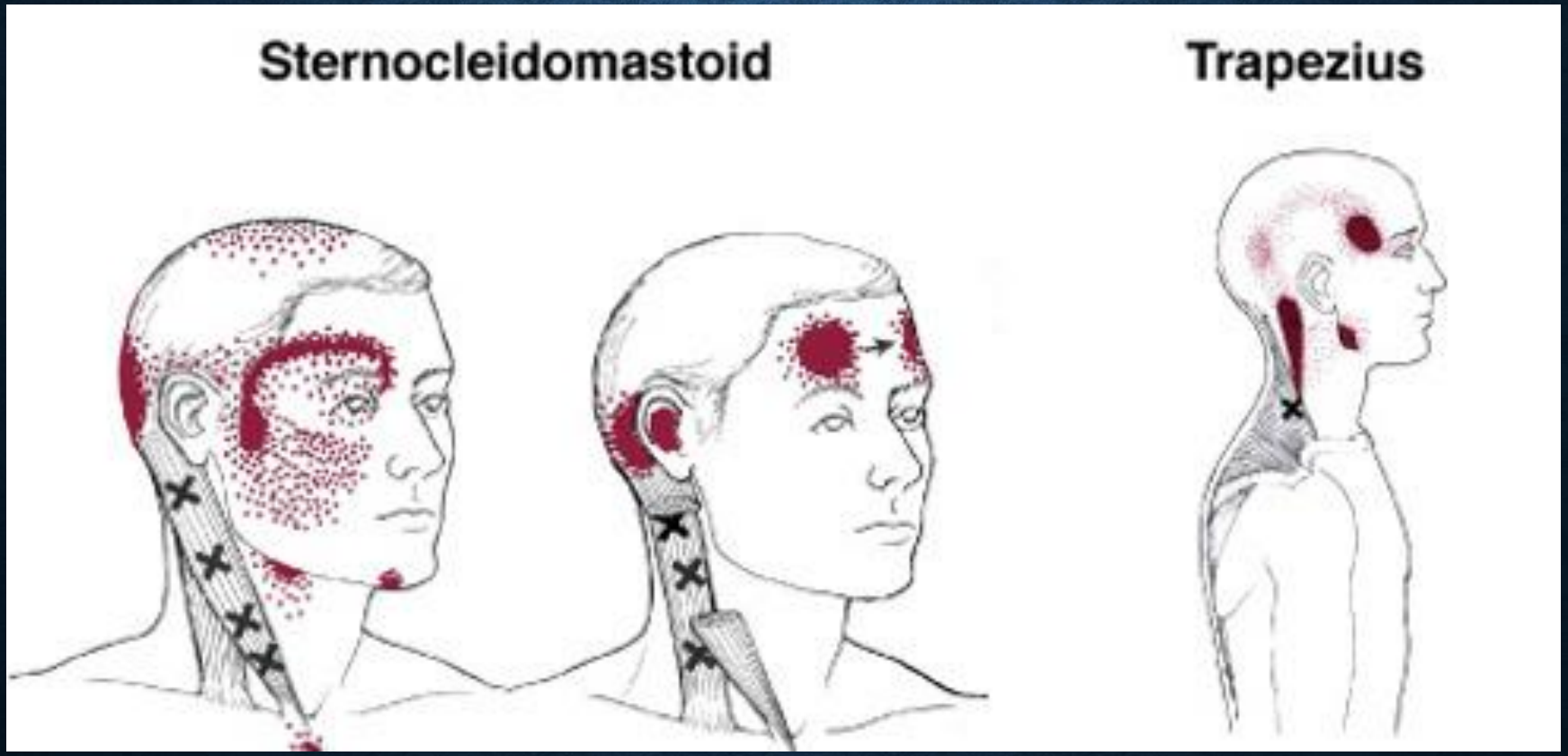
TEMPORALIS TRP



SPLENIUS CAPITUS TRP

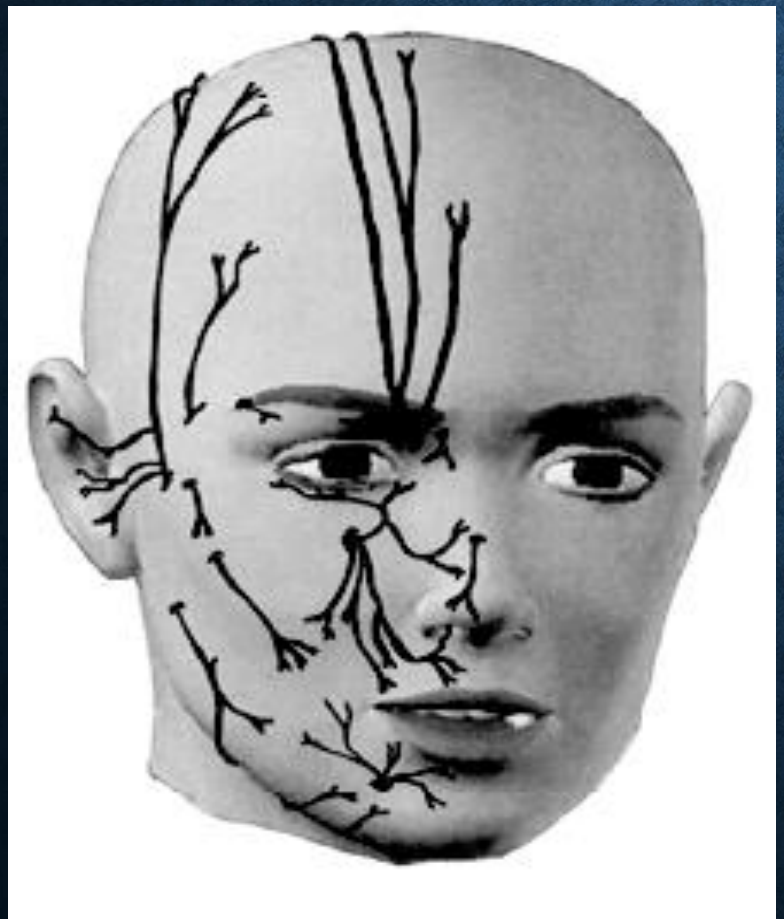


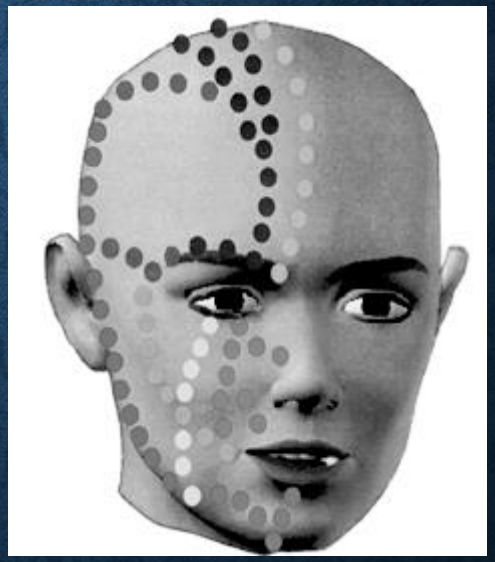
SCM AND TRAPEZIUS TRP



PINS TECHNIQUE

•Introduced by Dennis Dowling D.O.
•Found patterns on tenderpoints throughout the body including the head.

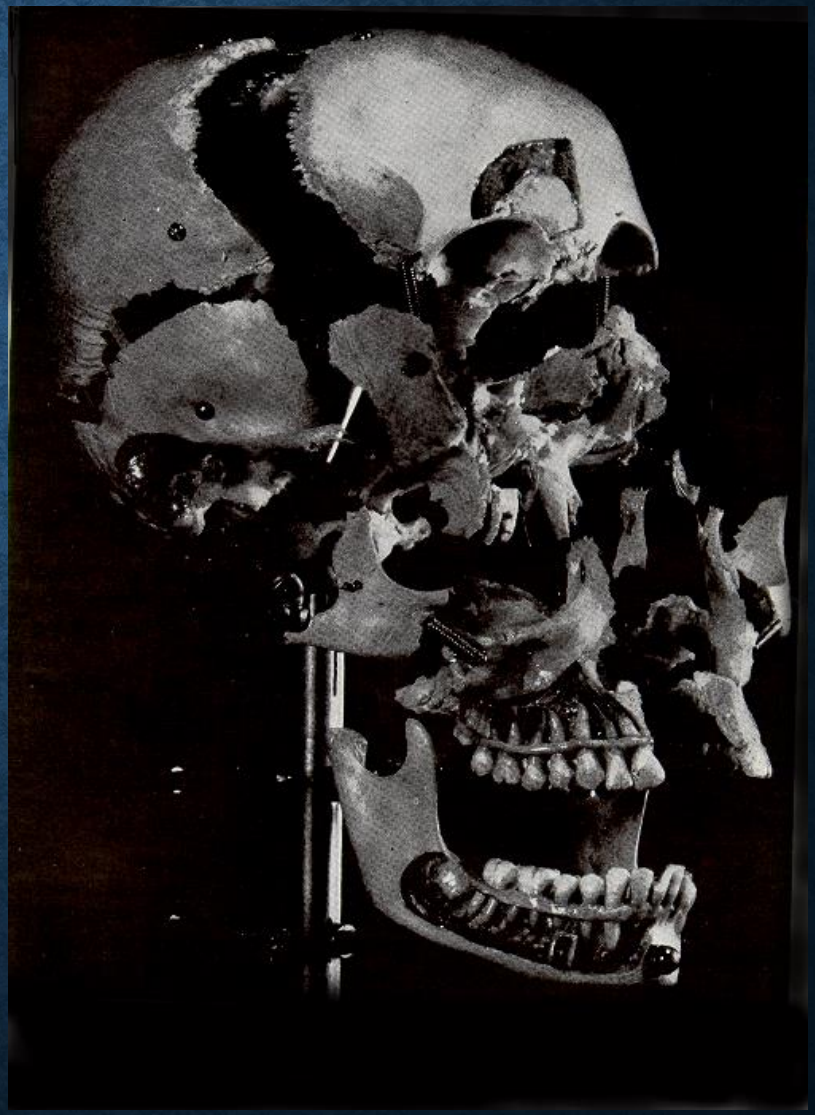




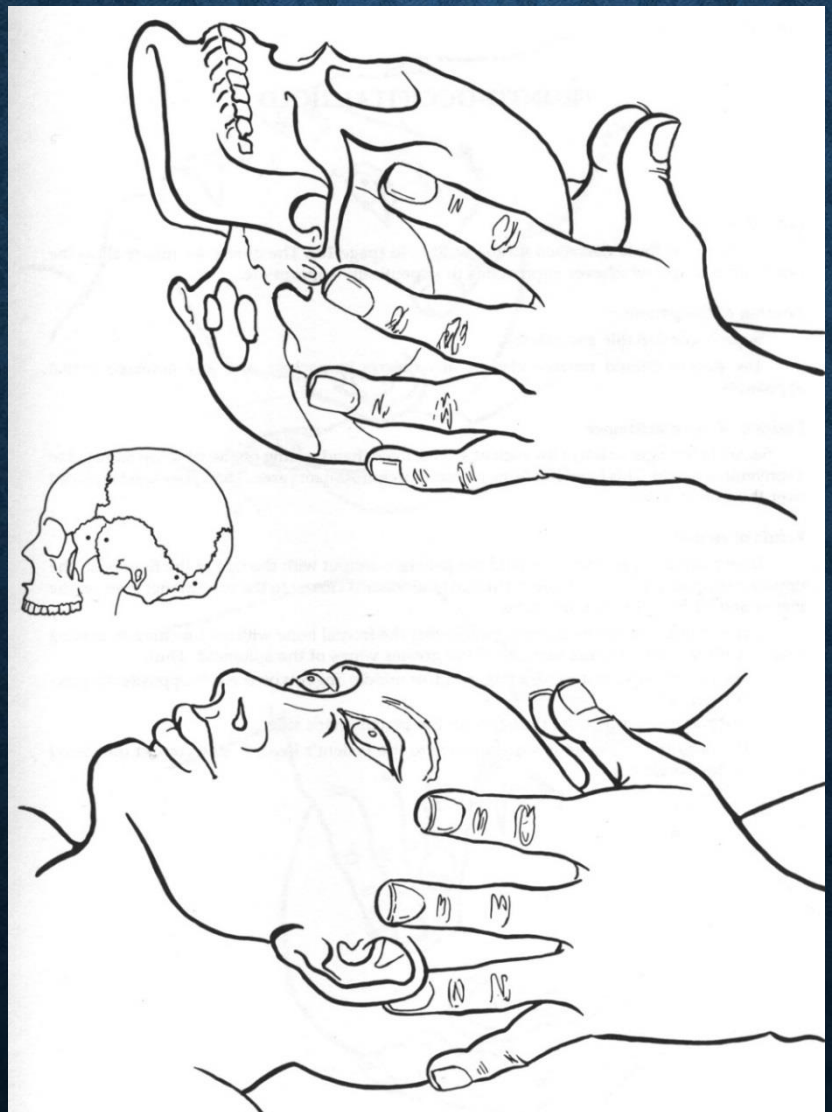
PINS TECHNIQUE

OSTEOPATHY IN THE CRANIAL FIELD (OCF)

- William Sutherland, D.O. saw a disarticulated skull and observed the edges of the sutures
- Noted that the bevels in the joints changed
- Beveled Temporal Squama as resembling “the gills of a fish”
- “…indicating articular mobility for a respiratory mechanism”



OCF



TREATMENT APPROACH

The 2 minute treatment

- Head- Vagus: OA release 739.0
- Cervical- FPR 739.1

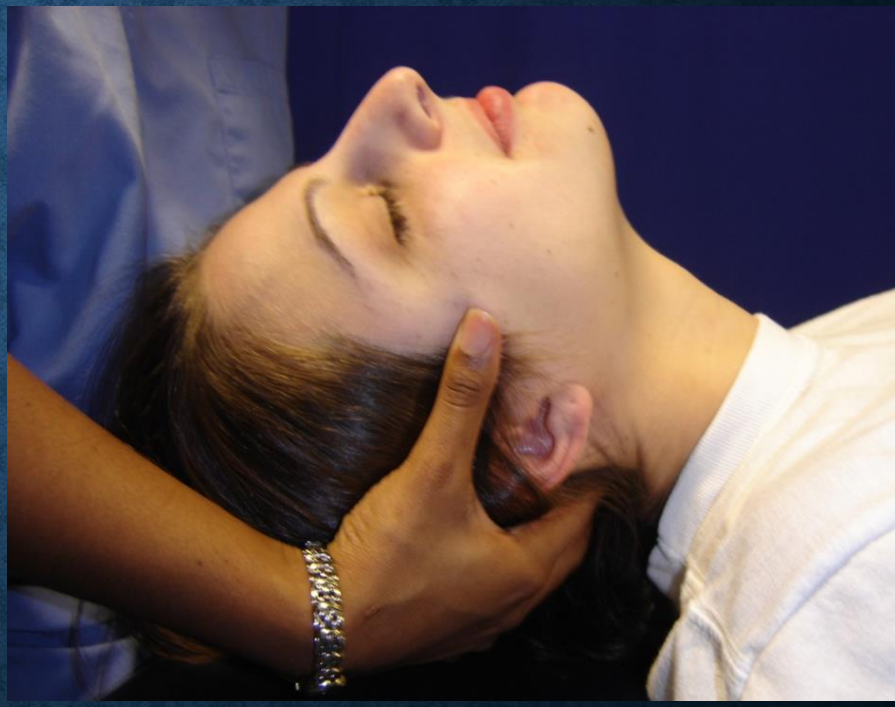
The 5 minute treatment

- Cervical spine: MFR, ME and or HVLA 739.1
- Upper Extremity: DIR
- 739.7
- Thoracic spine-Seated ME 739.2

TREATMENT APPROACH

The Extended treatment

- Direct inhibition or CS to trigger points 739.0, 739.1, 739.2
- Head- Decreased CRI- CV4 hold 739.0
- Cervical- Anterior cervicals-MFR 739.1
- Thoracic- MFR and or HVLA 739.3
- Head, Cervical- PINS technique to the head 739.0 and neck 739.1



ADDITIONALLY

- Home Exercise Program
- Physical Therapy
  - Stretching
  - Deep tissue massage
  - Modalities
    - TENS
    - Ultrasound
    - Iontophoresis
    - Biofeedback

SUMMARY

- Recognize the large number of muscular and boney contributors to Headache
- A focused structural exam can reveal a lot
- Treat and refer based on need, time and experience

THANK YOU

TECHNIQUES TODAY

- Head
  - DIR to pterygoids
  - OA release
- Thoracics
  - Seated HVLA (Full Nelson)
- Upper Extremity
  - DIR trapezius