

Temporomandibular Dysfunction

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Disclaimers

I have nothing to disclose

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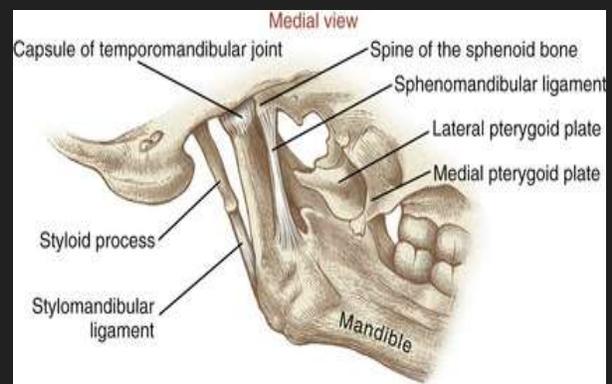
Learning Objectives:

- Understand the anatomy of TMJ
- Understand the treatment options for TMJ
- Understand when to refer patients for OMT

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TMJ

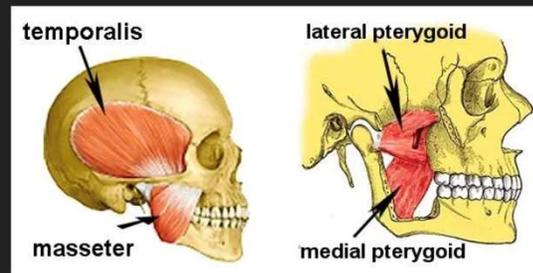
- TMJ is composed of the Head of mandible and mandibular fossa of the temporal bone
- Stylomandibular ligament connects the angle of the mandible to the styloid process of the temporal bone and the sphenomandibular ligament connects the lingula of the mandible to the spine of the sphenoid.
- Pg. 490, 502, 503



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TMJ

- Lateral pterygoid muscles arise from the sphenoid bone and attaches to the articular disk. This muscle draws the articular disk anteriorly when the mouth is opened
- Meniscus lies between mandibular condyle and temporal bone, absorbs shock of chewing and speaking. The meniscus should stay in contact with both bones during the hinge and glide motion.
- If the meniscus slips forwards or backward, it causes a clicking motion or if it remains there, jaw can become locked
- Pg. 490, 502, 503



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TMJ Dysfunction Definition

- Disorder of muscles of mastication
- "Characterized by TMJ tenderness on palpation, restricted motion of the jaw, which is frequently accompanied by "clicking" and is often unilateral, more pronounced in the morning and aggravated by chewing or biting." pg 922



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Prevalence:

- 25% of adults
- Most common in females
- Ages 18-44

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Causes and exacerbating factors:

- Dental intervention
- Poor posture
- Head trauma
- Bruxism
- Jaw clenching
- Excessive chewing of gum
- Stress
- May have neural, muscular, vascular origin. We will focus on muscular origin

- Pg. 922

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Symptoms

- Jaw ROM restriction
- Facial pain, worse with chewing
- Clicking, popping, snapping jaw
- Headache
- Neck pain
- Muscular tenderness, incoordination



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Reasons to look for other causes

- Chronic dislocation
- Ankylosis related to connective tissue disease
- Neoplasia
- Degenerative causes: OA, RA, ankylosis, infections of the bone or jaw

- Pg. 510

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Contraindications to treatment:

- Facial fractures
- Open wounds over area being treated
- Inability to cooperate
- Associated symptoms: tinnitus, hearing loss, or any other neurological symptoms a brain MRI should be ordered

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TMJ Diagnosis:

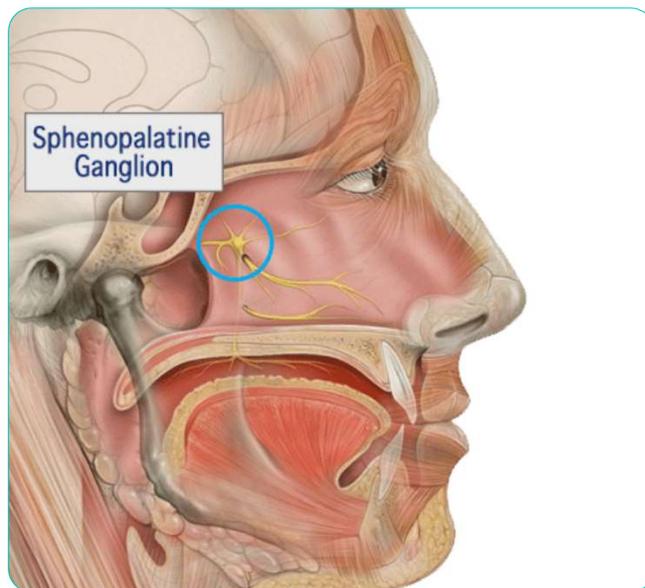
- Monitor patient's TMJ with flats of fingers over TMJ just anterior to the tragus while patient opens and closes jaw
- Look for deviation of mandible

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Treatments:

- NSAIDs, Muscle relaxants, GABA Analogs, Pregabalin, Analgesics
- Stress management
- Physical Therapy
- Referral to dentist
- Devices: Mouth guard, Splints
- OMT –Our Focus

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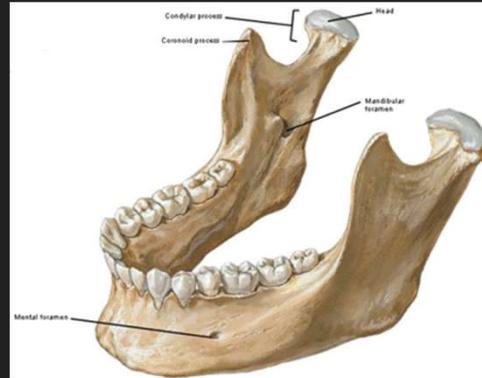
OMT: Sphenopalatine Release

- Allow your gloved 5th digit to sink into the space between the cheek and maxilla behind the last molars
- This may be painful and uncomfortable & cause tearing
- Pain should improve within the first few seconds, if not you may be in the wrong space
- Hold until a complete release is felt & both sides are symmetrical

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OMT: Myofascial release Mandible

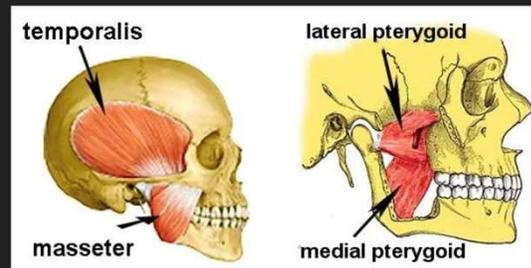
- Place your index and middle fingers over each side of the mandible and gently engage w/ caudal pressure feeling for any restrictions
- Hold until a release is felt and both side are symmetrical



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OMT: Trigger Points

- Muscles of Mastication:
- **Temporalis**
- **Masseter**
- **Medial, Lateral Pterygoid**
- Digastric
- Mylohyoid
- Geniohyoid
- Infrahyoids



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Treatment Muscles:

- [https://www.physio-
pedia.com/Temporomandibular_Disorder
s](https://www.physio-
pedia.com/Temporomandibular_Disorder
s)

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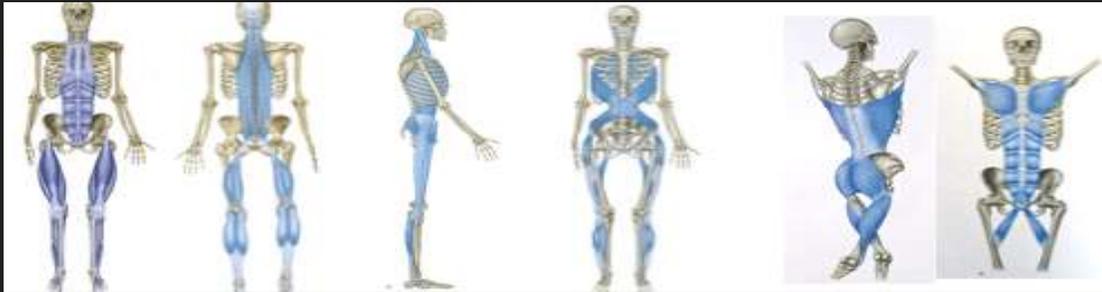
Suboccipital Release

- Place your fingers pads comfortably just below the occiput in the suboccipital muscular space and your palms underneath the occiput
- Lateral traction and lean back slightly
- Hold until a complete release is felt & both sides are symmetrical
- This should not be uncomfortable or hurt the patient, they should be able to relax on your hands.
- Reposition with soft fingers and reposition



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Don't forget, the body is a unit



- Your body wants to compensate for any postural imbalances to ensure that your eyes are level
- Postural imbalances at any level will cause TMJ to reoccur so will need to be treated

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Summary

- Tenderness on palpation, restricted motion of the jaw, which is frequently accompanied by "clicking" and is often unilateral, more pronounced in the morning and aggravated by chewing or biting." pg 922
- 25% of adults have TMJ disorders
- Consider OMT if there are no red flags
- Sphenopalatine ganglion, Mandibular release, Trigger points, Suboccipital release
- Postural Imbalance

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Thank you

- Questions?

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References:

- Foundations of Osteopathic Medicine 3rd Edition. Executive Editor: Anthony Chila

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