# TMD Overview


## Sacramento District Dental Society
## Midwinter Convention 2026

Andrew Young DDS, MSD

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Tire issues

Chain issues

Brake issues

Shifter issues

Gear issues

# Diagnosis

ie, What could go wrong?

Disc dislocation

Condyle dislocation

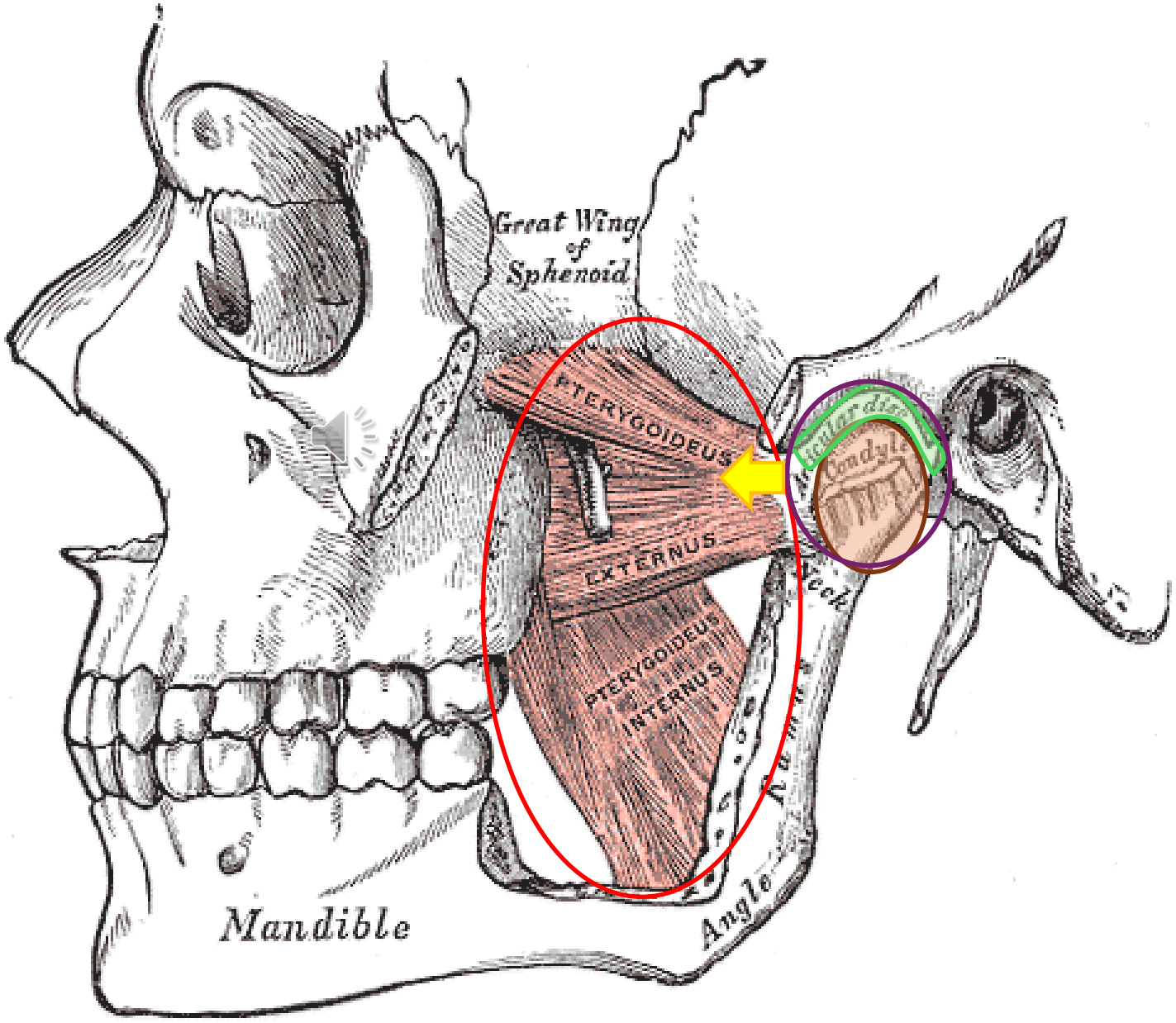
Bony degeneration

Joint pain

Muscle pain

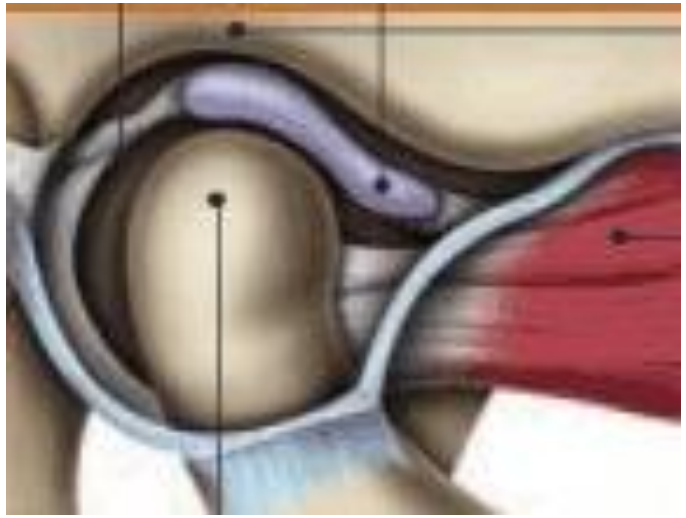
# Diagnosis

ie, What could go wrong?



# Diagnosis

Joint Conditions



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# YOUTUBE VIDEO

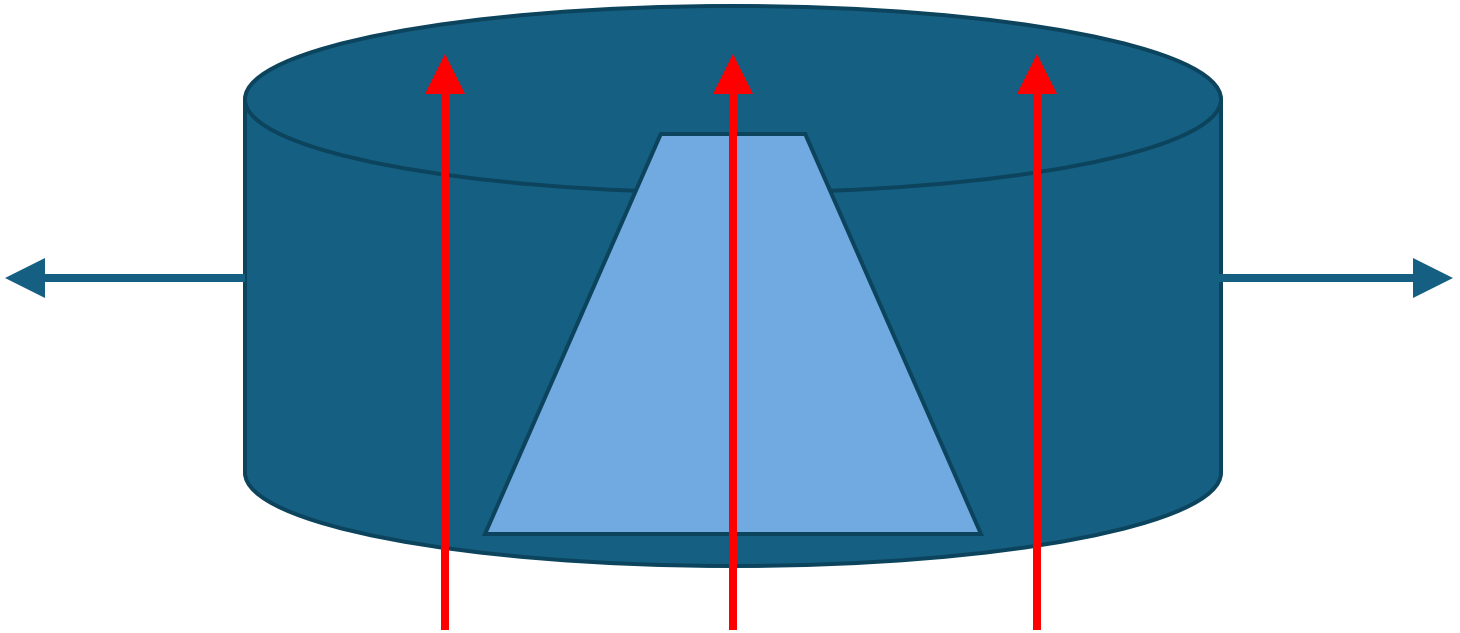
https://www.youtube.com/watch?v=mB468Jh9aAY

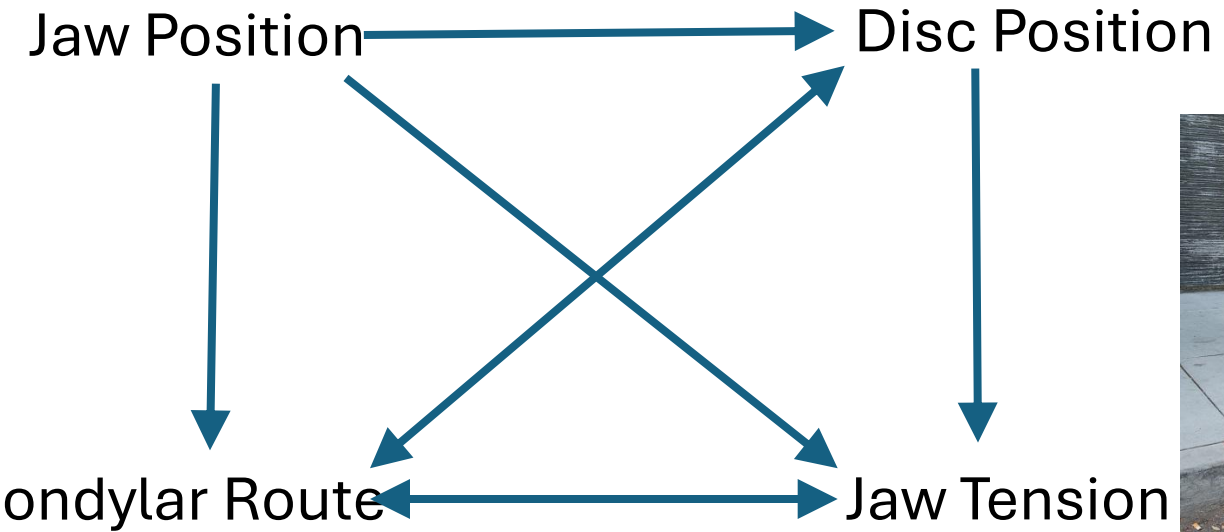
# Normal  Ranges

- Opening: 40-55 mm
- Protrusion: ≥ 7 mm
- Laterotrusion: ≥ 7 mm in each direction

# Why Clicking & Locking is

- Highly variable
  - Week by week
  - Day by day
  - Movement by Movement




Jaw Position
Disc Position
Condylar Route
Jaw Tension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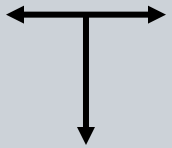
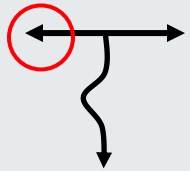
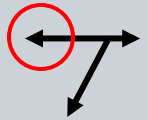
MTA

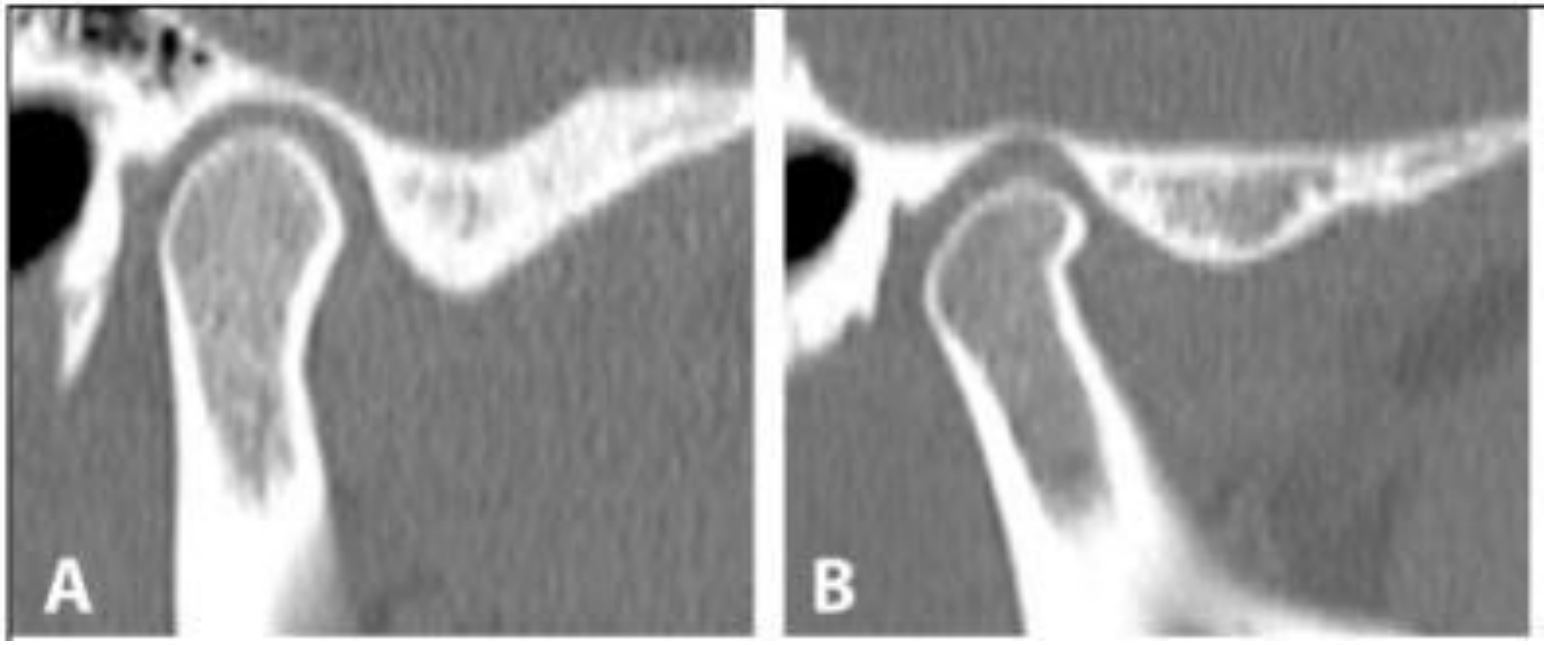
| | Noise | Range of Motion | Pain | Xray |
|---|---|---|---|---|
| Normal | X |  | X | X |
| Disc Displ w/ Reduction | Click/ Pop |  | If present, worse with movement | X |
| Disc Displ w/o Reduction w/Limited Open | X |  | If present, worse with movement or forced opening | X |

"Doctor, is this going to get worse?"

# Disc Displacements Prognosis

- Very common
- While clicks and pops are annoying, and usually persist for many years, they usually have no long-term clinical significance
  - Pain usually subsides within months
  - Rarely cause bony degeneration
    - Monitor for signs of degeneration (next slides)
- Locks gradually open, at a rate of 1 mm/mo

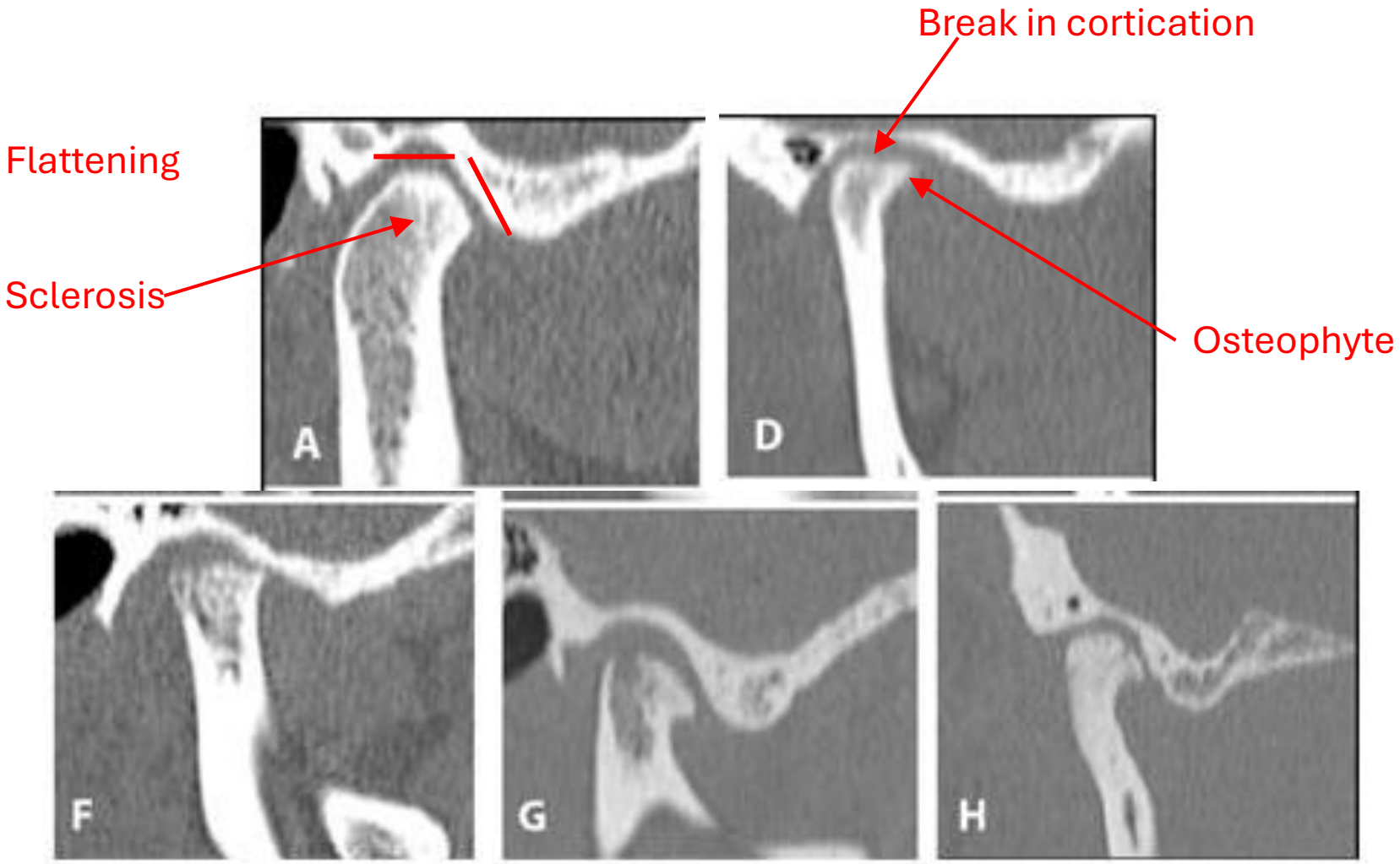
# Normal TMJ



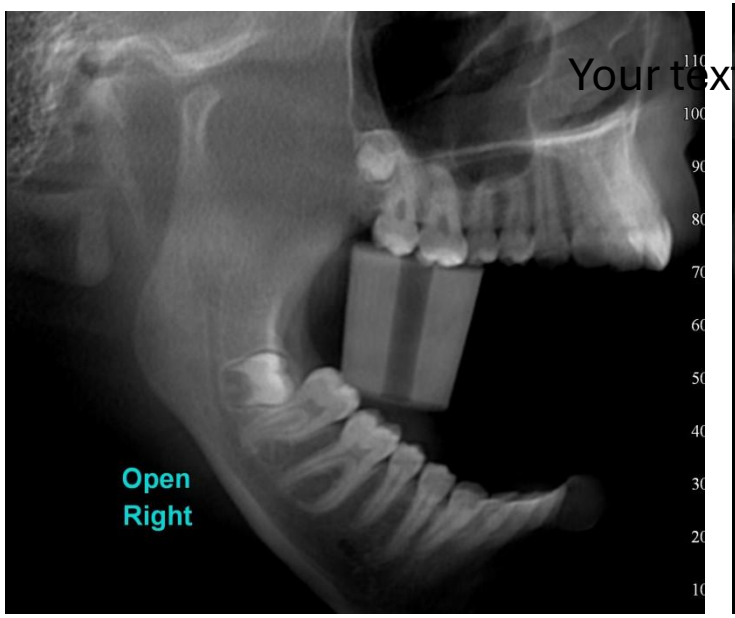

- Round condylar head
- Continuous cortical border

$$\text{Pressure} = \frac{\text{Force}}{\text{Area}}$$

# Degenerative Joint Disease



# Subluxation

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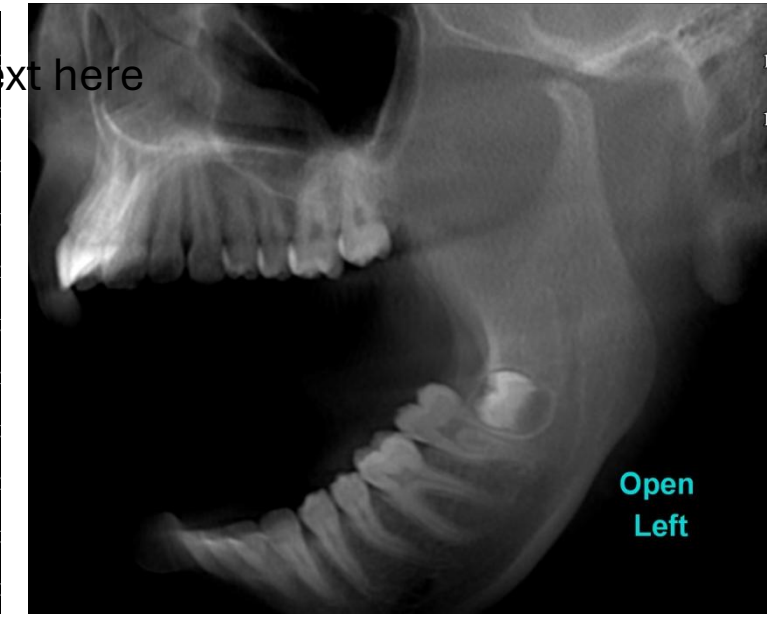
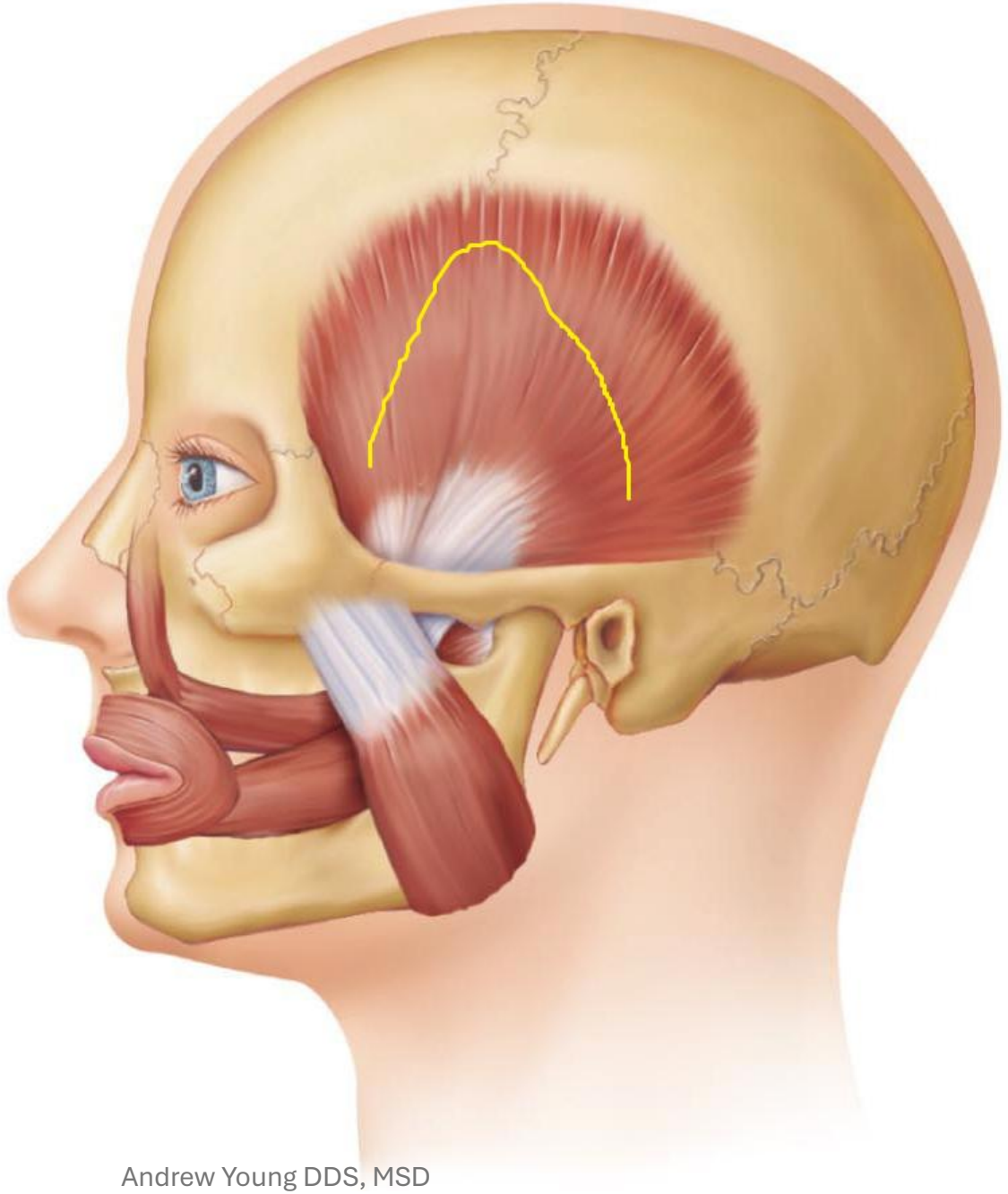


# Diagnosis

Muscle Conditions



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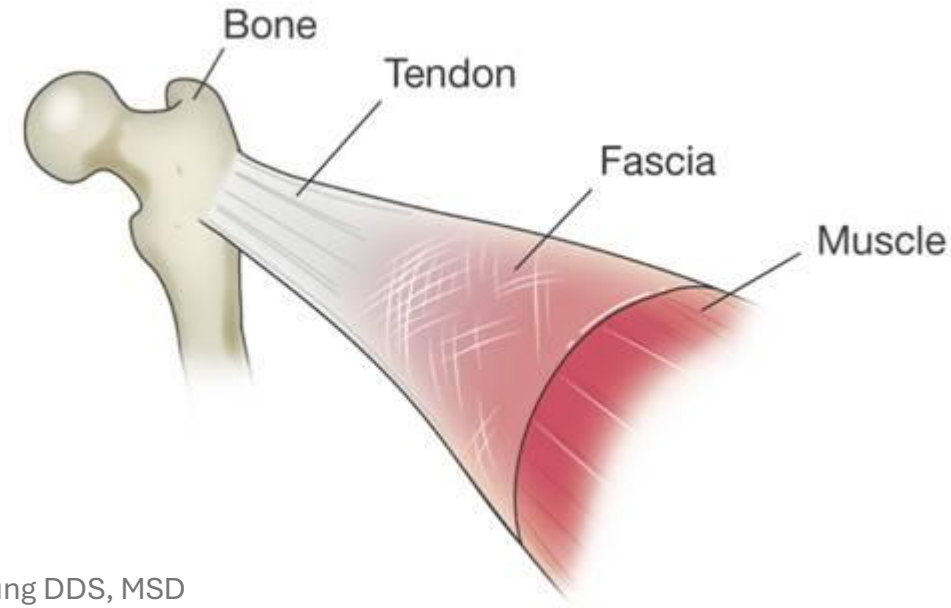
# Local Myalgia

- Local or regional dull ache with function, possibly at rest
  - Pain at rest, and regional pain, mean more challenging
- Localized tenderness to palpation
- Possible decreased range of motion due to pain

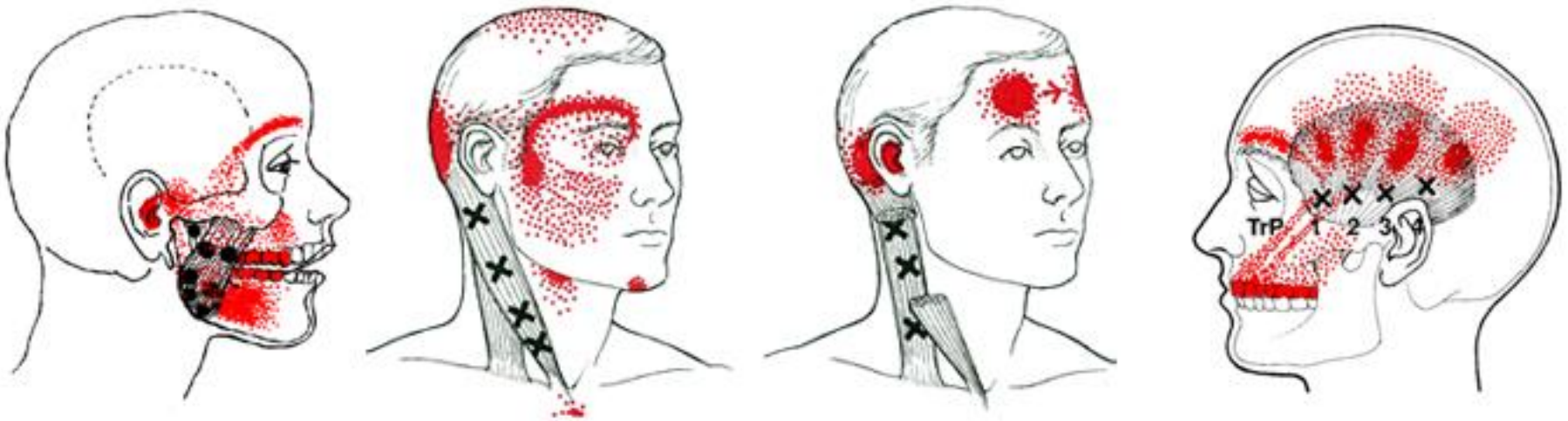
# Myofascial  Pain

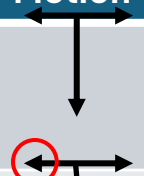
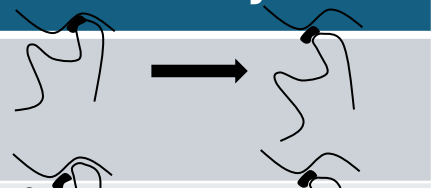
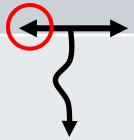
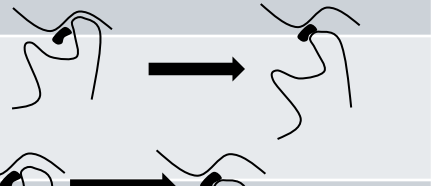
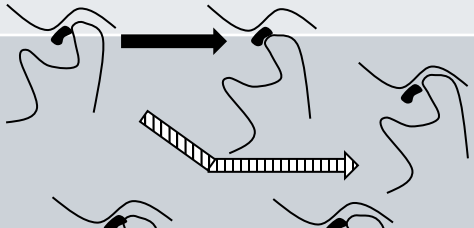
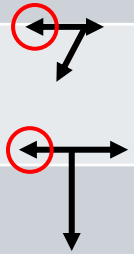
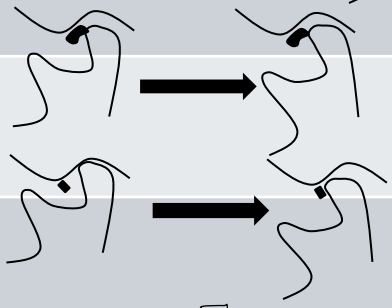
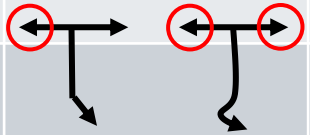
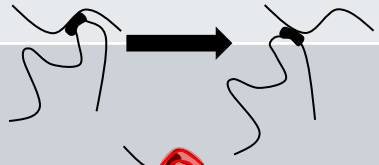
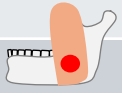
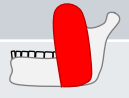
- Same as Local Myalgia, but additionally
  - Spreading pain and/or
  - Referred pain

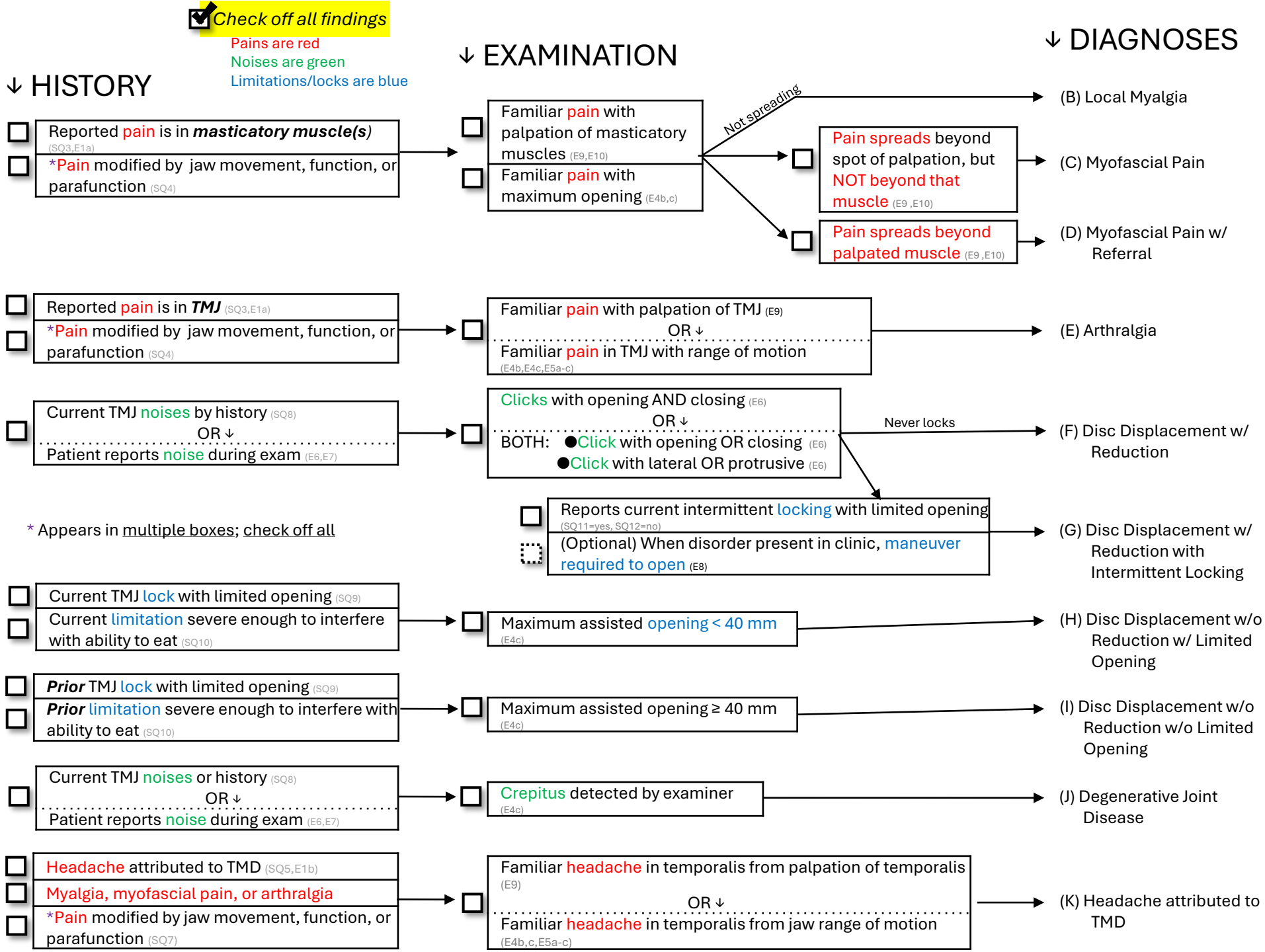


# Referral & Spreading

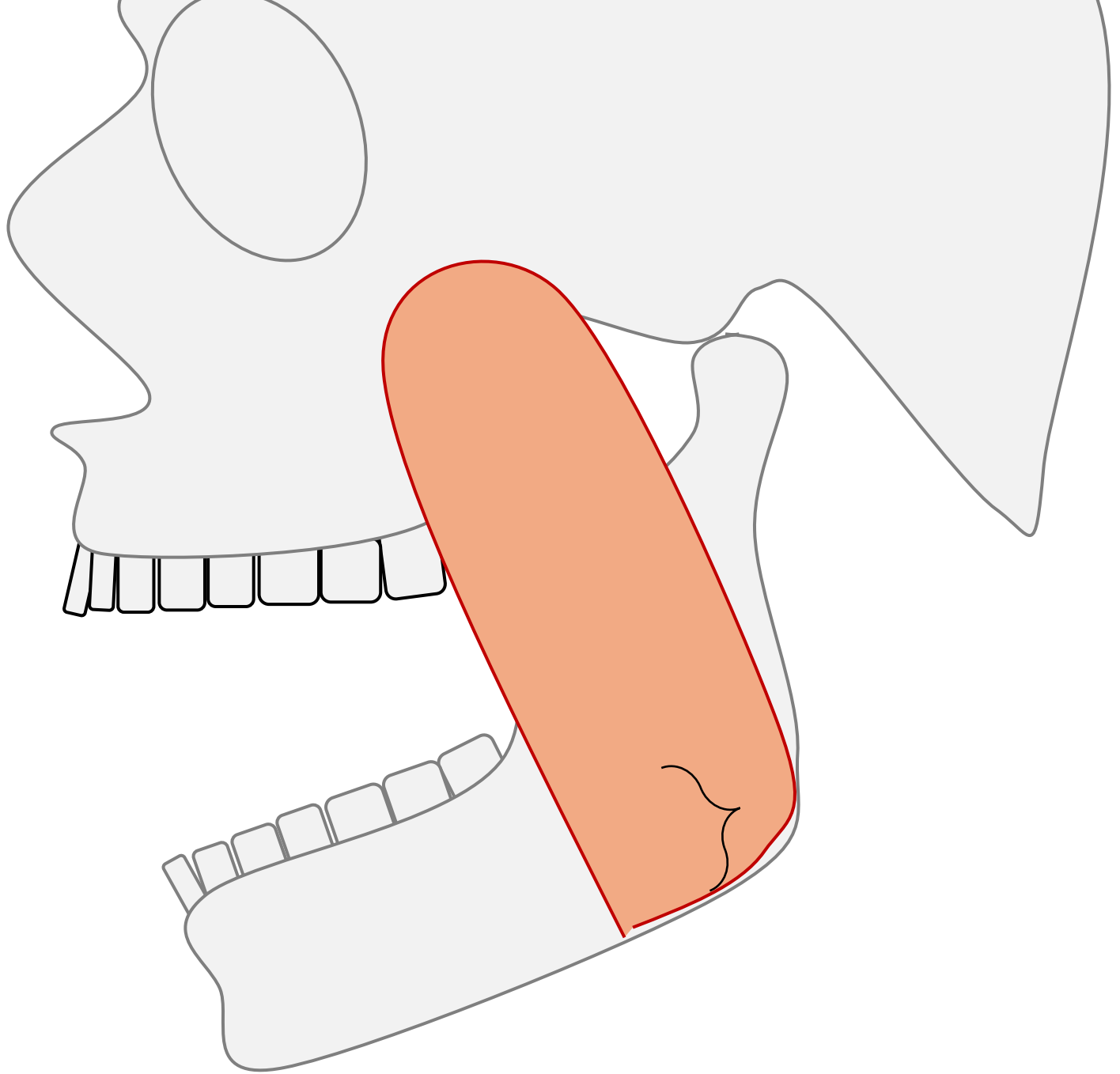
- Referral = Remote sites
- Spreading = Connected sites



| | Noise | Range of Motion | Pain | Xray | Anatomy |
|---|---|---|---|---|---|
| Normal | X |  | X | X |  |
| Disc Displacement w/ Reduction | Click/ Pop |  | If present, with movement | X |  |
| Disc Displacement w/ Reduction *w/ intermittent Locking* | Click/Pop, *& sometimes just closed lock* |  Sometimes | If present, with movement *or forced opening* | X |  |
| Disc Displacement w/o Reduction w/ Limited Opening | X |  | If present, with movement or forced opening | X |  |
| Disc Displacement w/o Reduction w/o Limited Opening | X | | If present, with movement | X | |
| DJD | Crepitus | May be limited<br>May deviate | If present, worse with movement<br>May be constant | Condylar degeneration |  |
| Subluxation | Late pop |  | May, during pop | Anterior to eminence |  |
| Arthralgia (formerly capsulitis/synovitis) | X | Limit is 2º to pain | During function<br>May be constant | X |  |
| Myalgia | X | Limit is 2º to pain | Localized to palpation site | X |  |
| Myofascial Pain | X | Limit is | Spreads beyond | X |  |




Young A et al, Diagnostic Tool Using the Diagnostic Criteria for Temporomandibular Disorders: A Randomized Crossover-Controlled, Double-Blinded, Two-Center Study. J Oral Facial Pain Headache. 2021



# Physical Exam for TMD

# TMD is jaw musculoskeletal

- Pain

&/or

- Dysfunction, usually meaning limited
  - Opening
  - Chewing force

| | Pain | Range Limitation | Sounds |
|---|---|---|---|
| **Myalgia** | Yes | Often | Not applicable |
| **Arthralgia** | Yes | Often | Not applicable |
| **Disc Displacement WITH Reduction** | Not applicable | No | Yes |
| **Disc Displacement withOUT Reduction** | Not applicable | Yes | No |

# Purpose of Exam

- Determine if limitation in range
- Locate pain by
  - Palpation
  - Jaw movement

| | Pain | Range Limitation | Sounds |
|---|---|---|---|
| **Myalgia** | Yes | Often | Not applicable |
| **Arthralgia** | Yes | Often | Not applicable |
| **Disc Displacement WITH Reduction** | Not applicable | No | Yes |
| **Disc Displacement withOUT Reduction** | Not applicable | Yes | No |

*And thereby*

- Aid the diagnostic process
- Locate areas to focus treatment
- Track progress

# If signs/symptoms are NOT improving, it means

- Misdiagnosis
- Missed diagnosis
- Mistreatment (ie, wrong treatment)
- Missed treatment

Misdiagnosis, Missed diagnosis: Safety issue

Mistreatment (ie, wrong treatment), Missed treatment: Comfort and function issue

# Ranges

# Painful? Limited?

- Aid diagnosis
- Treatment will focus on improving it for
  - Function
  - Symptom relief
- Track progress over time

| | Pain | Range Limitation | Sounds |
|---|---|---|---|
| **Myalgia** | Yes | Often | Not applicable |
| **Arthralgia** | Yes | Often | Not applicable |
| **Disc Displacement WITH Reduction** | Not applicable | No | Yes |
| **Disc Displacement withOUT Reduction** | Not applicable | Yes | No |

# Maximum Opening

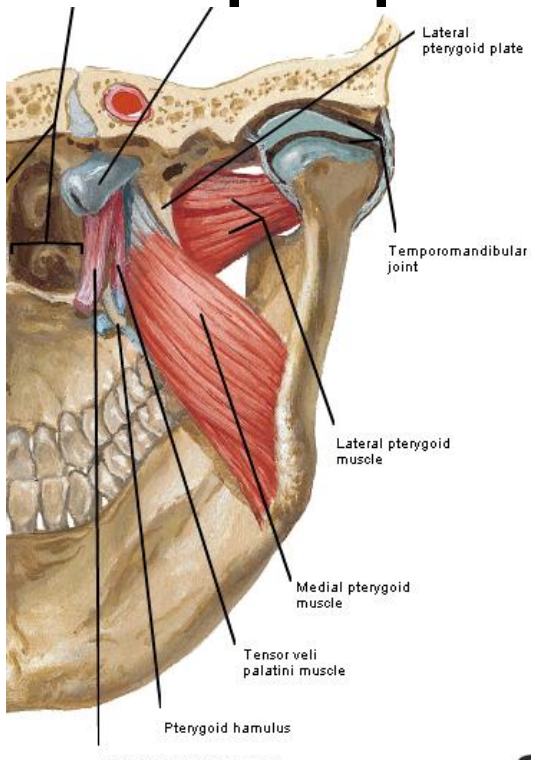
Does it hurt?
Where?

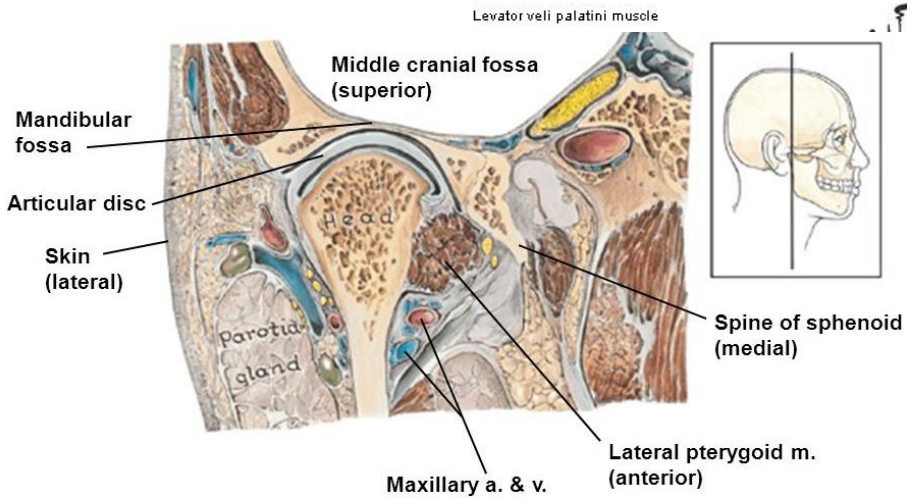
| | Pain | Range Limitation | Sounds |
|---|---|---|---|
| **Myalgia** | Yes | Often | Not applicable |
| **Arthralgia** | Yes | Often | Not applicable |
| **Disc Displacement WITH Reduction** | Not applicable | No | Yes |
| **Disc Displacement withOUT Reduction** | Not applicable | Yes | No |

If suspect TMJ, confirm

# *Why ask* for pain location when we'll palpate anyway?

- Some muscles are not palpable
  - Pterygoids
- Some muscles hurt when stretched, but not when palpated
  - And vice versa
- Most of TMJ is not palpable
  - Buried areas will not hurt when palpated

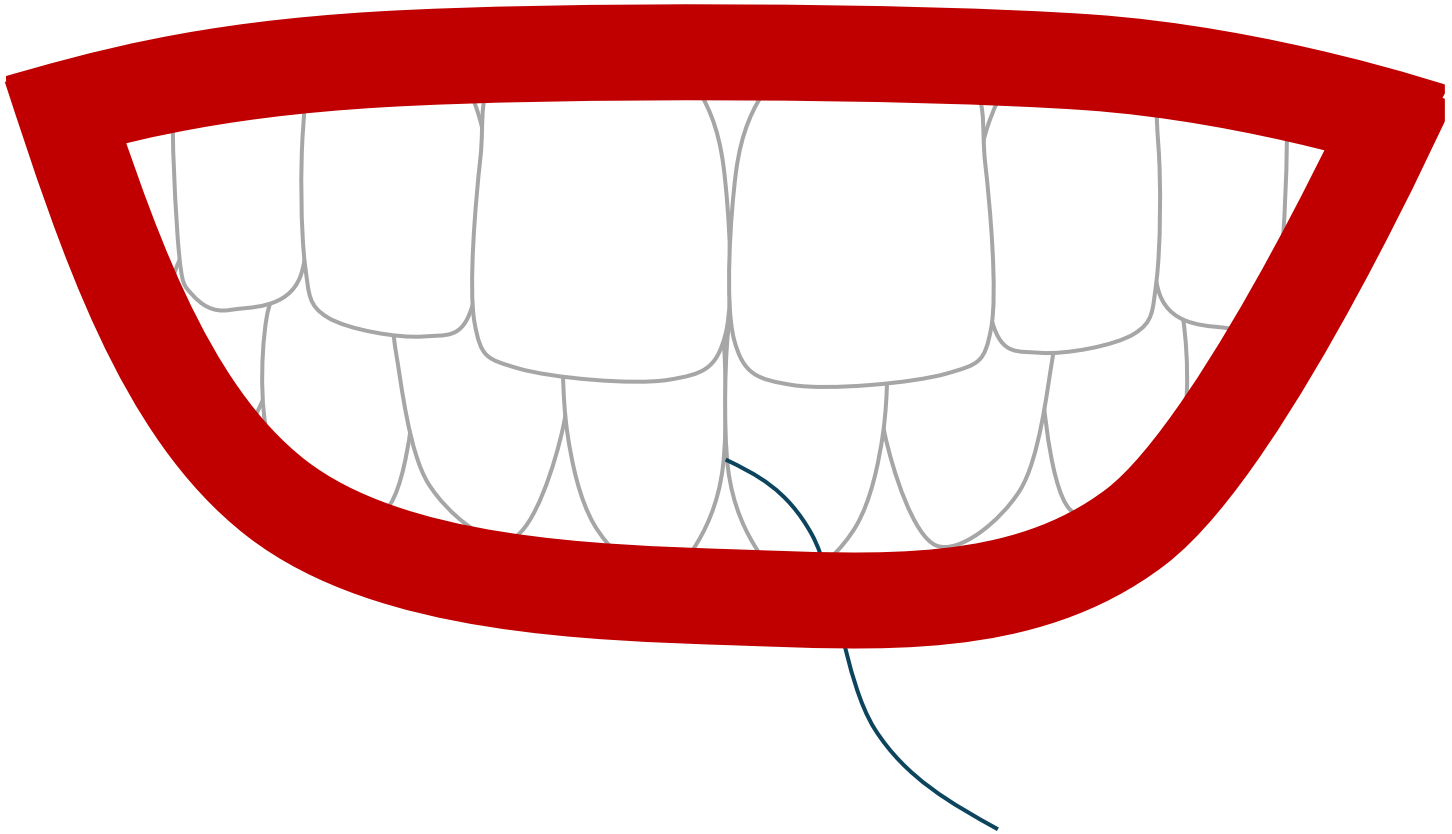


| | Location of Pain | Limitation in Range |
|---|---|---|
| Palpation | Precise, but limited to masseter, temporalis, and part of TMJ | N/A |
| Jaw Movement | Less precise, but can assess all of muscles and TMJ | Precise |

# Excursive Movements

Laterotrusion and Protrusion



# Laterotrusion

Does it hurt?
Where?

If suspect TMJ, confirm

# Protrusion


Does it hurt?
Where?

Or use a probe
Add overjet!

# Protrusion

- Does it hurt?
- Where?

If suspect TMJ, confirm

# Pain &/or Limitation in **Excursive** Movements often mean

- The joint is the issue
- Limitation
  - Due to pain = joint pain (arthralgia)
  - Due to obstruction = disc displacement

| | Pain | Range Limitation | Sounds |
|---|---|---|---|
| **Myalgia** | Yes | Often | Not applicable |
| **Arthralgia** | Yes | Often | Not applicable |
| **Disc Displacement WITH Reduction** | Not applicable | No | Yes |
| **Disc Displacement withOUT Reduction** | Not applicable | Yes | No |

# TMJ Noises During Movements

# Who Detects Noises Better?

- Patients

| | Pain | Range Limitation | Sounds |
|---|---|---|---|
| **Myalgia** | Yes | Often | Not applicable |
| **Arthralgia** | Yes | Often | Not applicable |
| **Disc Displacement WITH Reduction** | Not applicable | No | Yes |
| **Disc Displacement withOUT Reduction** | Not applicable | Yes | No |

| | Pain | Range Limitation | Sounds |
|---|---|---|---|
| **Myalgia** | Yes | Often | Not applicable |
| **Arthralgia** | Yes | Often | Not applicable |
| **Disc Displacement WITH Reduction** | Not applicable | No | Yes |
| **Disc Displacement withOUT Reduction** | Not applicable | Yes | No |

# Pain with Palpation

Exactly where is the pain coming from?

(To focus treatment)

(To track progress)

| | Location of Pain | Limitation in Range |
|---|---|---|
| Palpation | Precise, but limited to masseter, temporalis, and part of TMJ | N/A |
| Jaw Movement | Less precise, but assesses all of muscles and TMJ | Precise |

# Timing for Palpation

- Press for 5 seconds before lifting finger
  - Some spots need that long to express pain
  - Missing that will result in false negatives

# Force for TMJ

- 1 lb

Or

- Whatever causes pain on asymptomatic person (you?), reduced by 50%

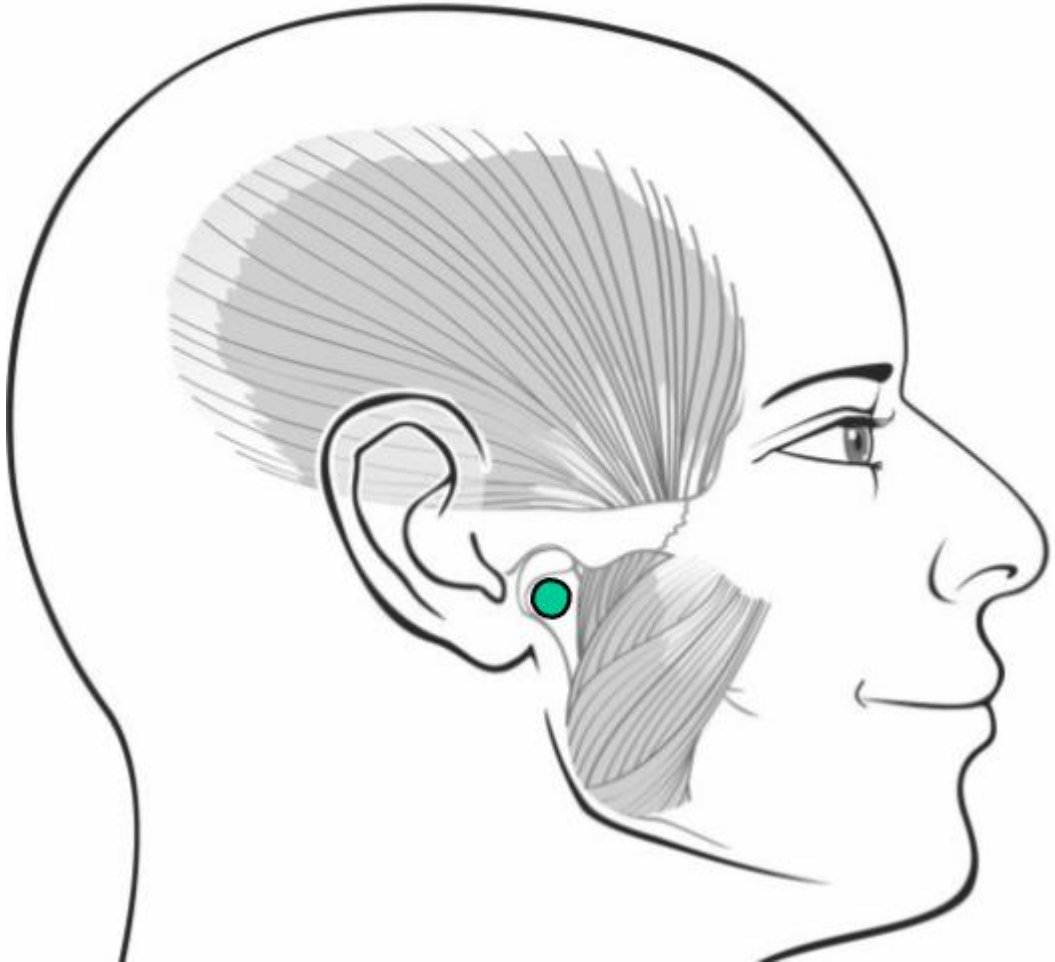
# Scale

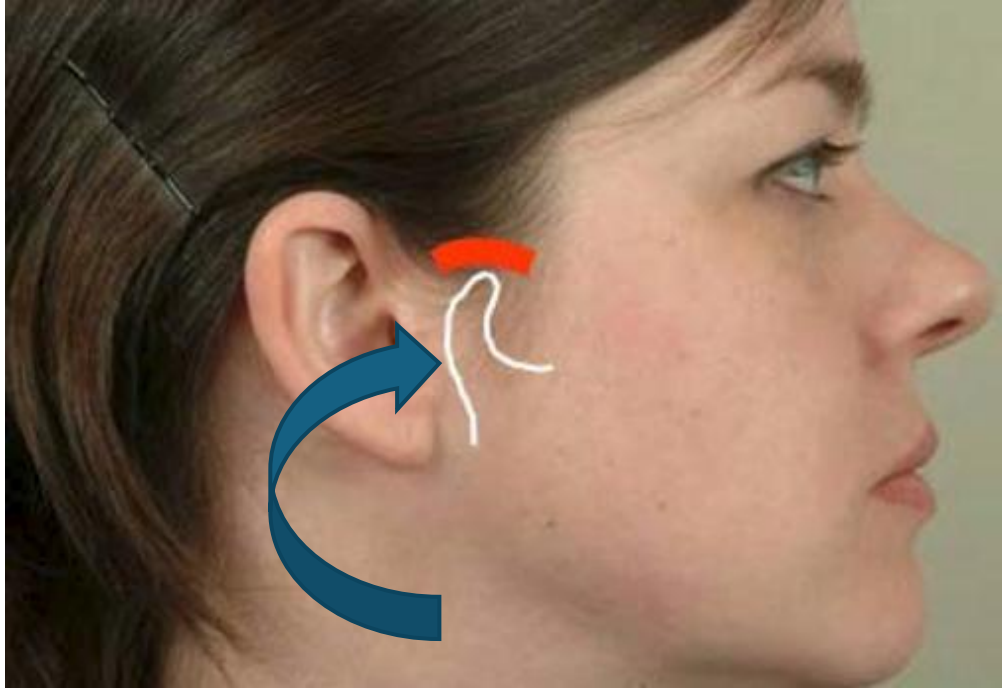
| Number | Meaning | Verbalizes Pain | Shows pain |
|---|---|---|---|
| 0 | None | No | No signs |
| 1 | Mild | Yes | No signs |
| 2 | Moderate | Yes | Shows in eyes |
| 3 | Severe | Yes | Pulls away or pushes you away |

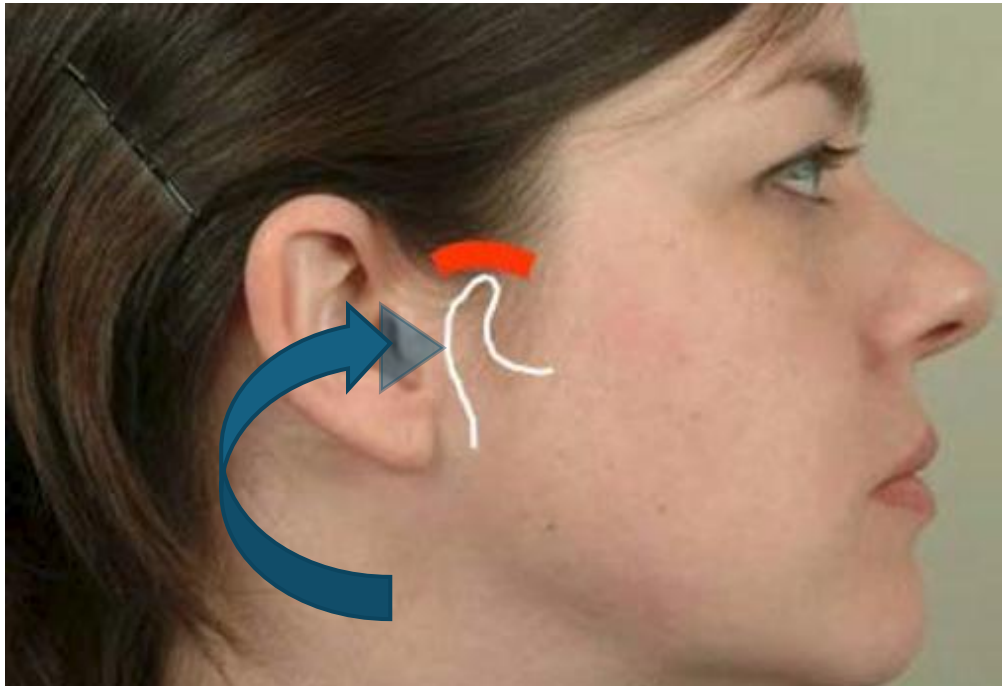
Why not use the 0 – 10 scale?

0-3 is faster

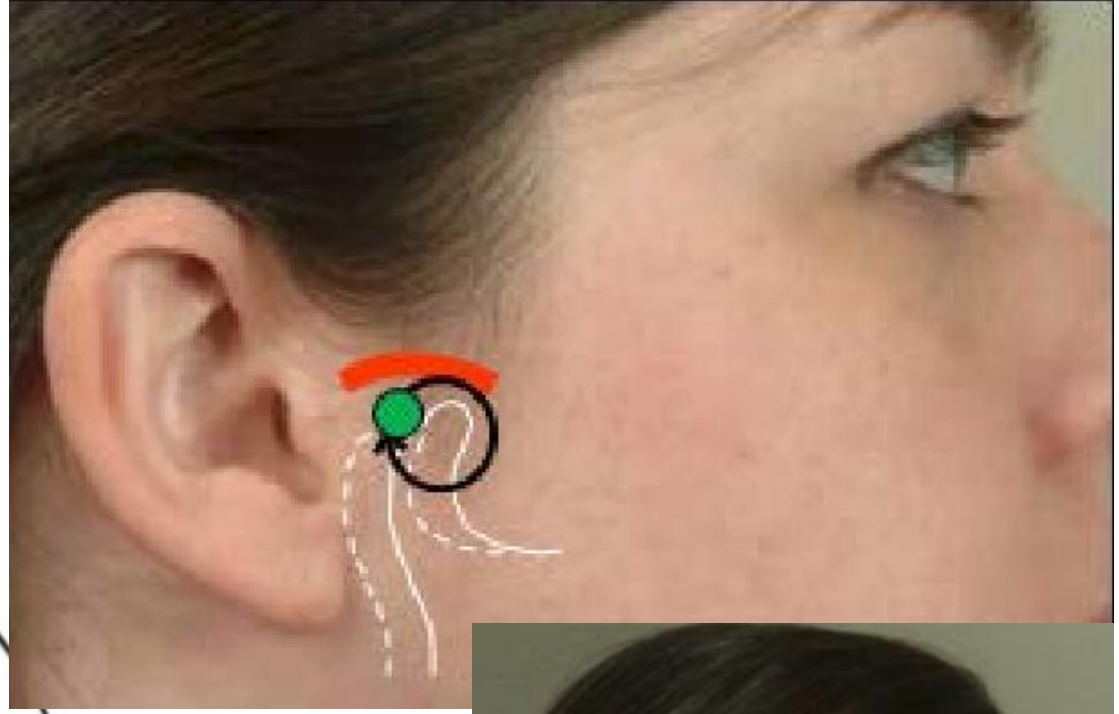
# Posterior TMJ

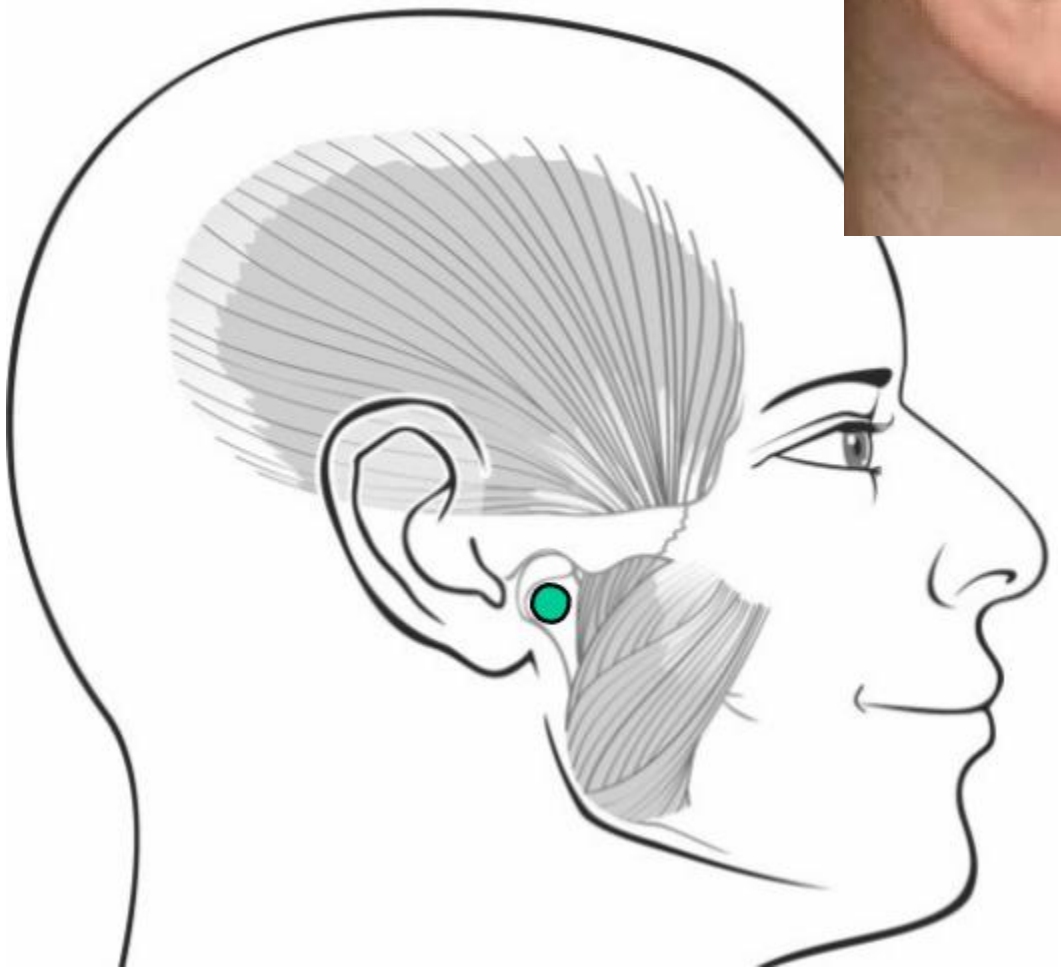


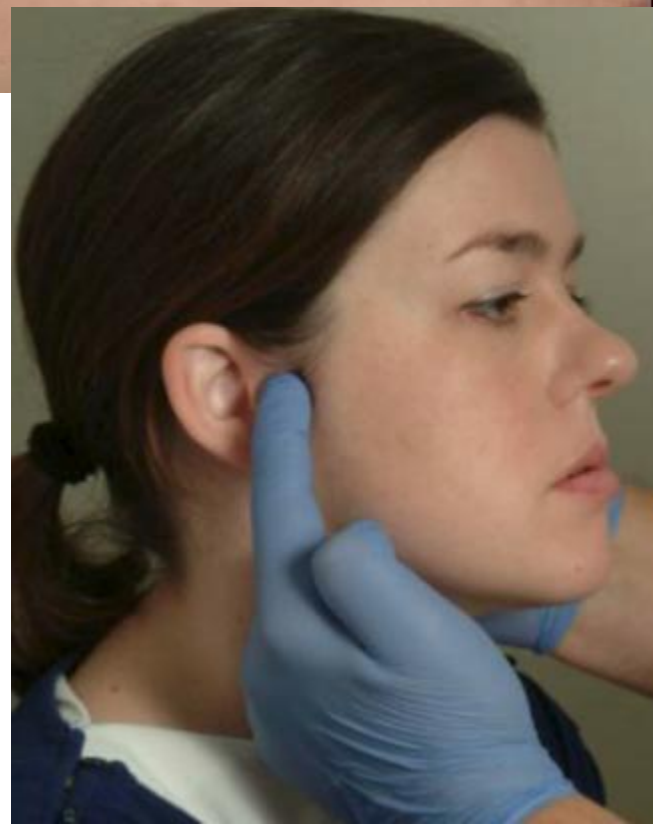




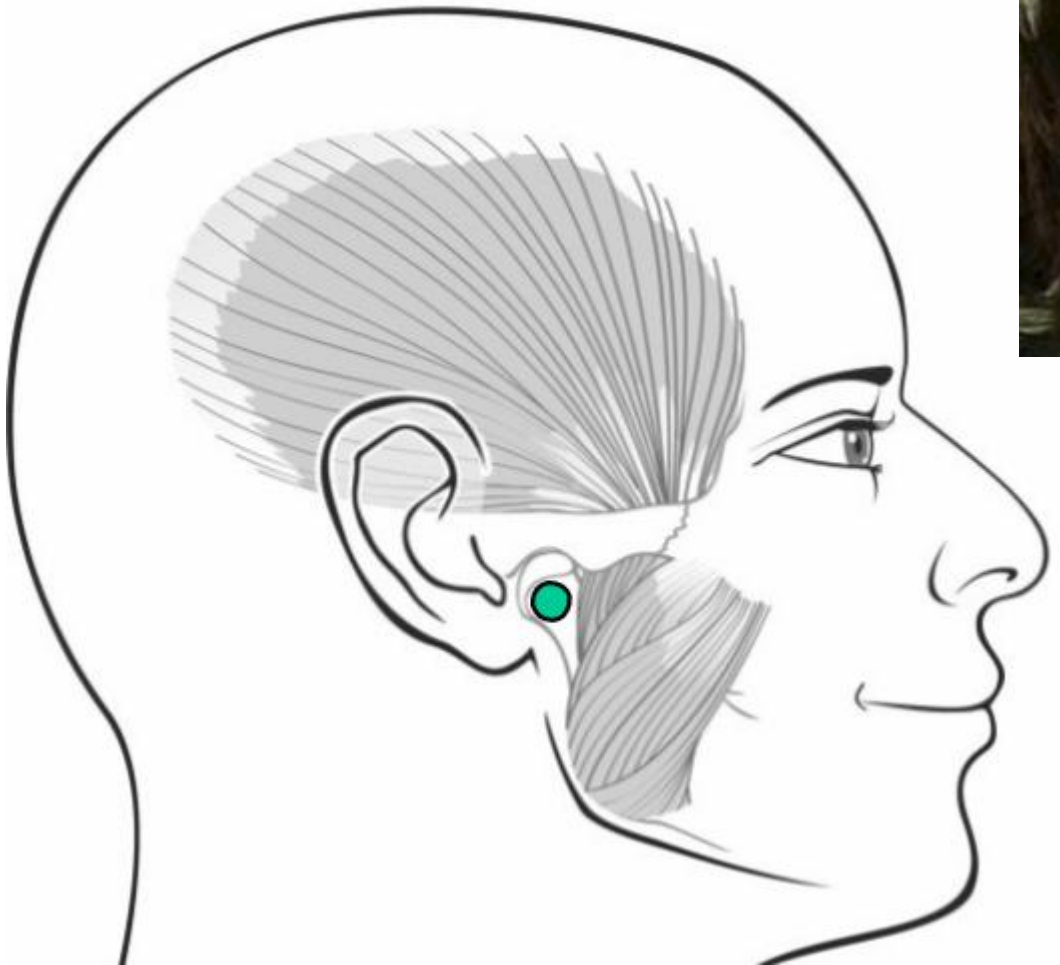
# Posterior TMJ (Alternative Method)

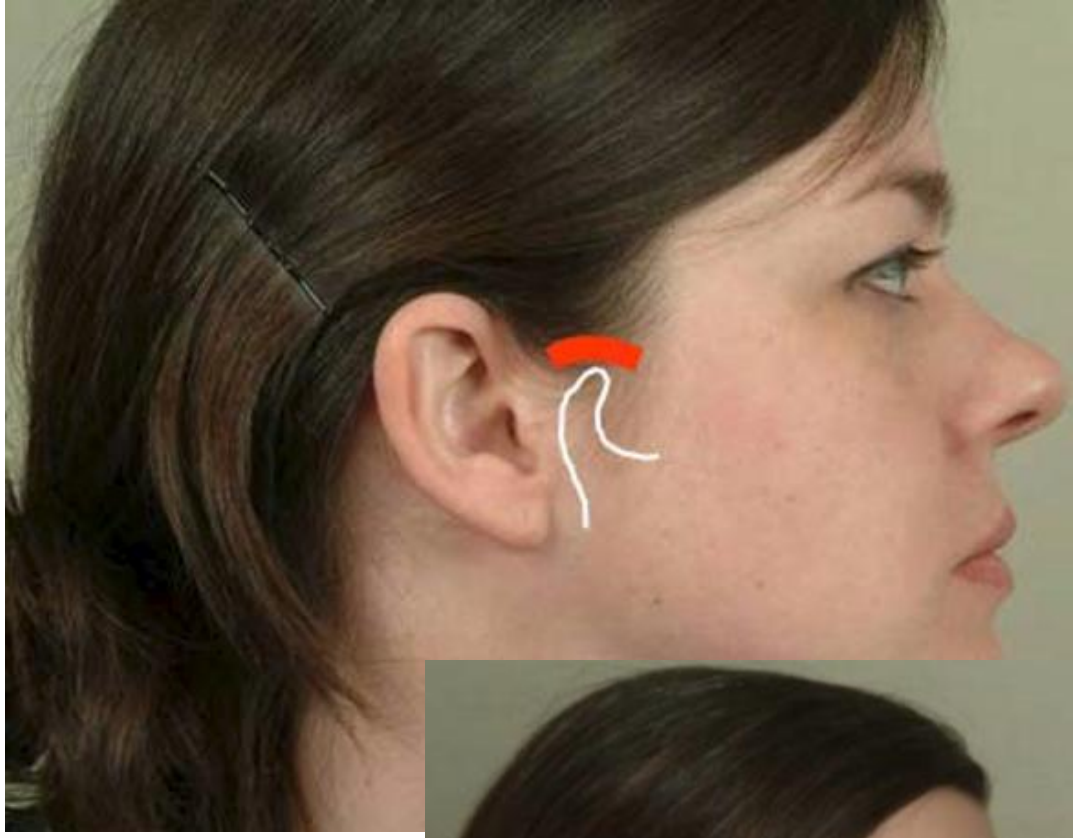


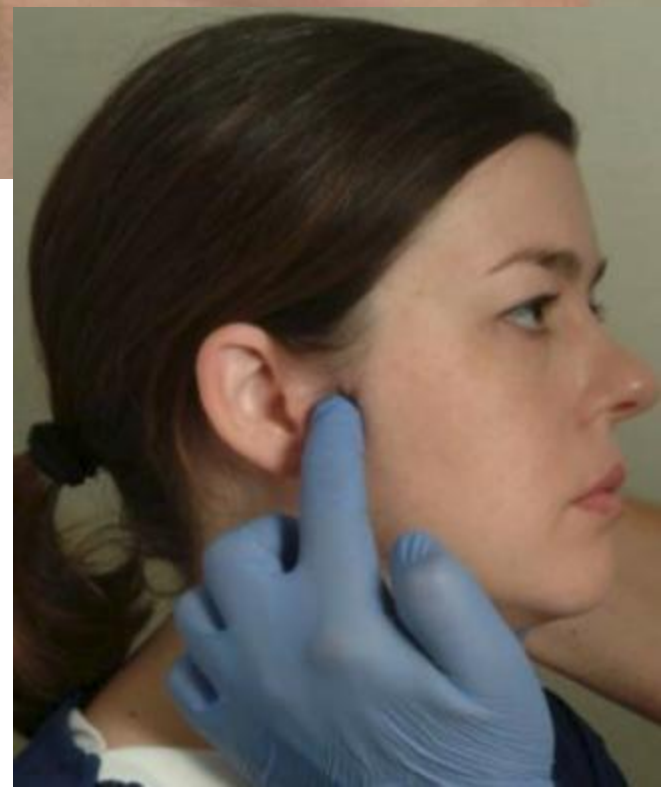




# Lateral & Anterior TMJ







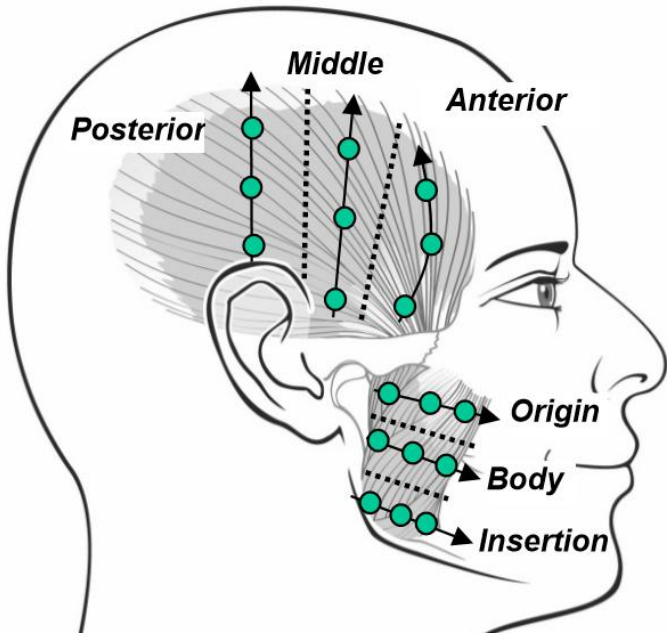
# Force for Muscle

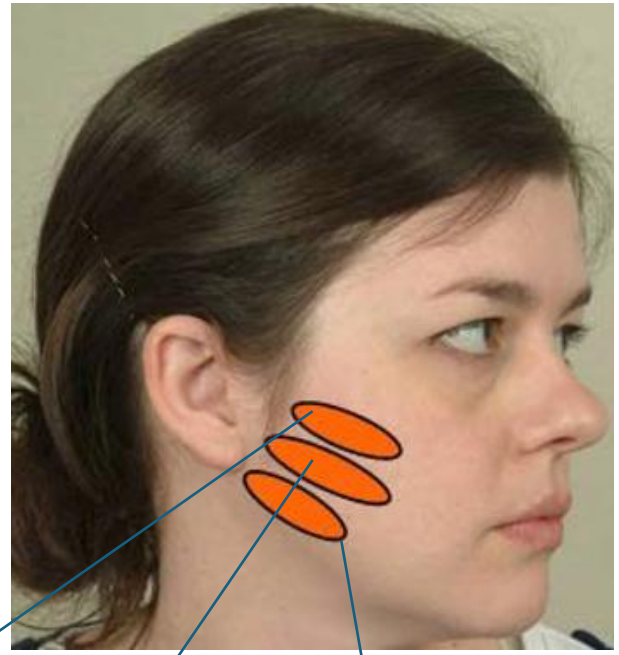
- 2 lbs

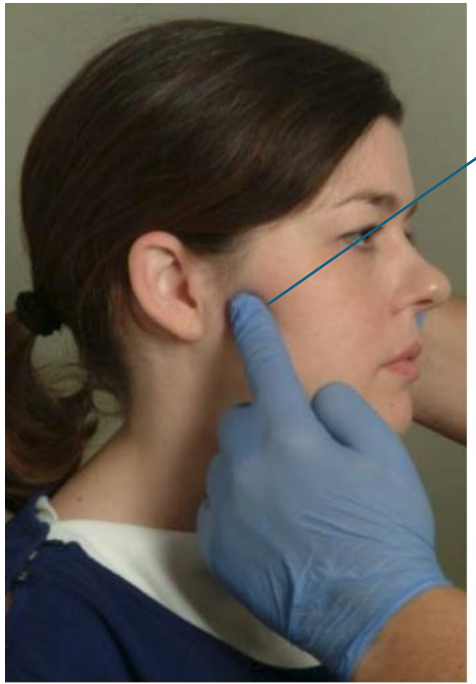
Or

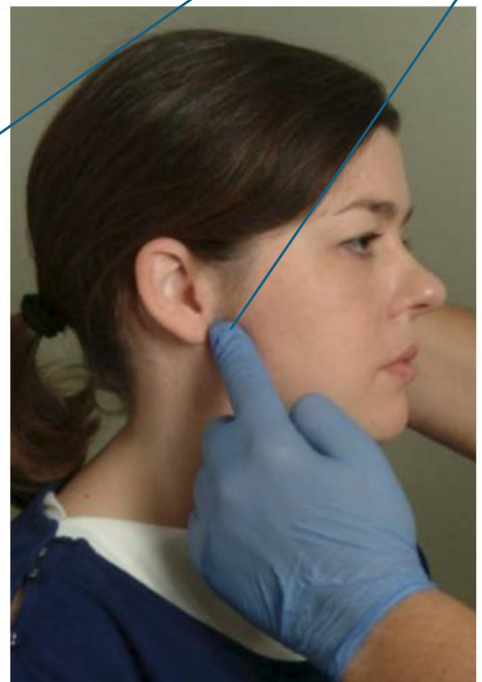
- Whatever causes pain on asymptomatic person (you?), reduced by 50%

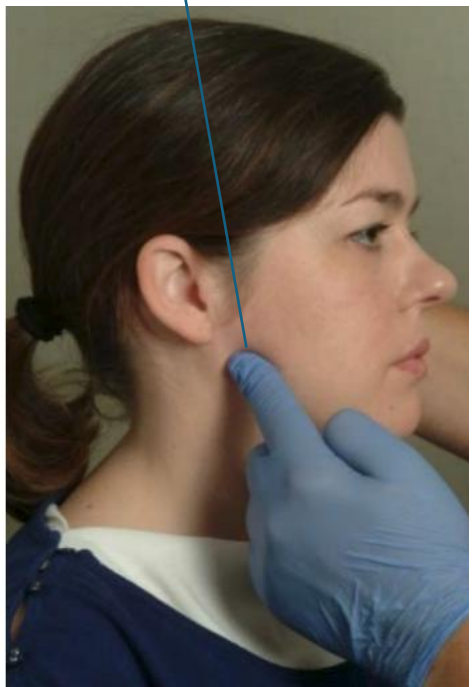
# Masseter



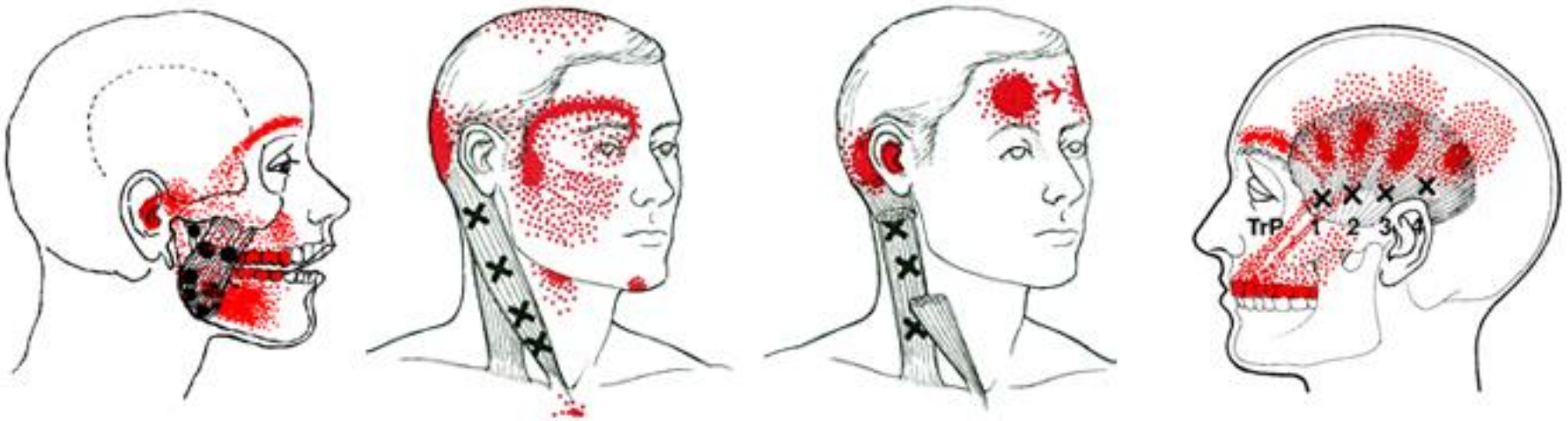






# Referral & Spreading

- Referral = Remote sites
- Spreading = Connected sites



# TMDs That Need Treatment

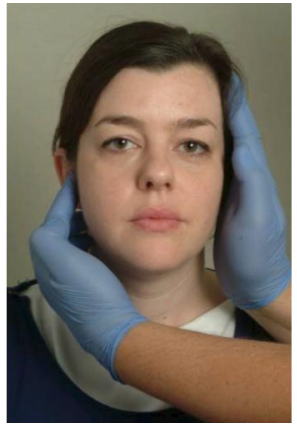
- Pain
- Dysfunction
  - Mainly due to limitation in opening
- Arthritis
  - Progression can (though rarely) lead to traumatic occlusion and/or changes in appearance
- Bruxism
  - To reduce the damaging effects to teeth and/or bone

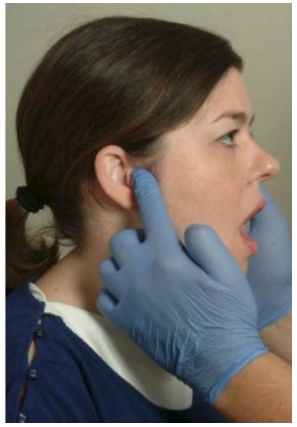
# Treating TMDs

Cause-Based Treatment


DO NOT
ENTER
STOP

Once you know it is a TMD, the cause is more relevant than the specific diagnosis





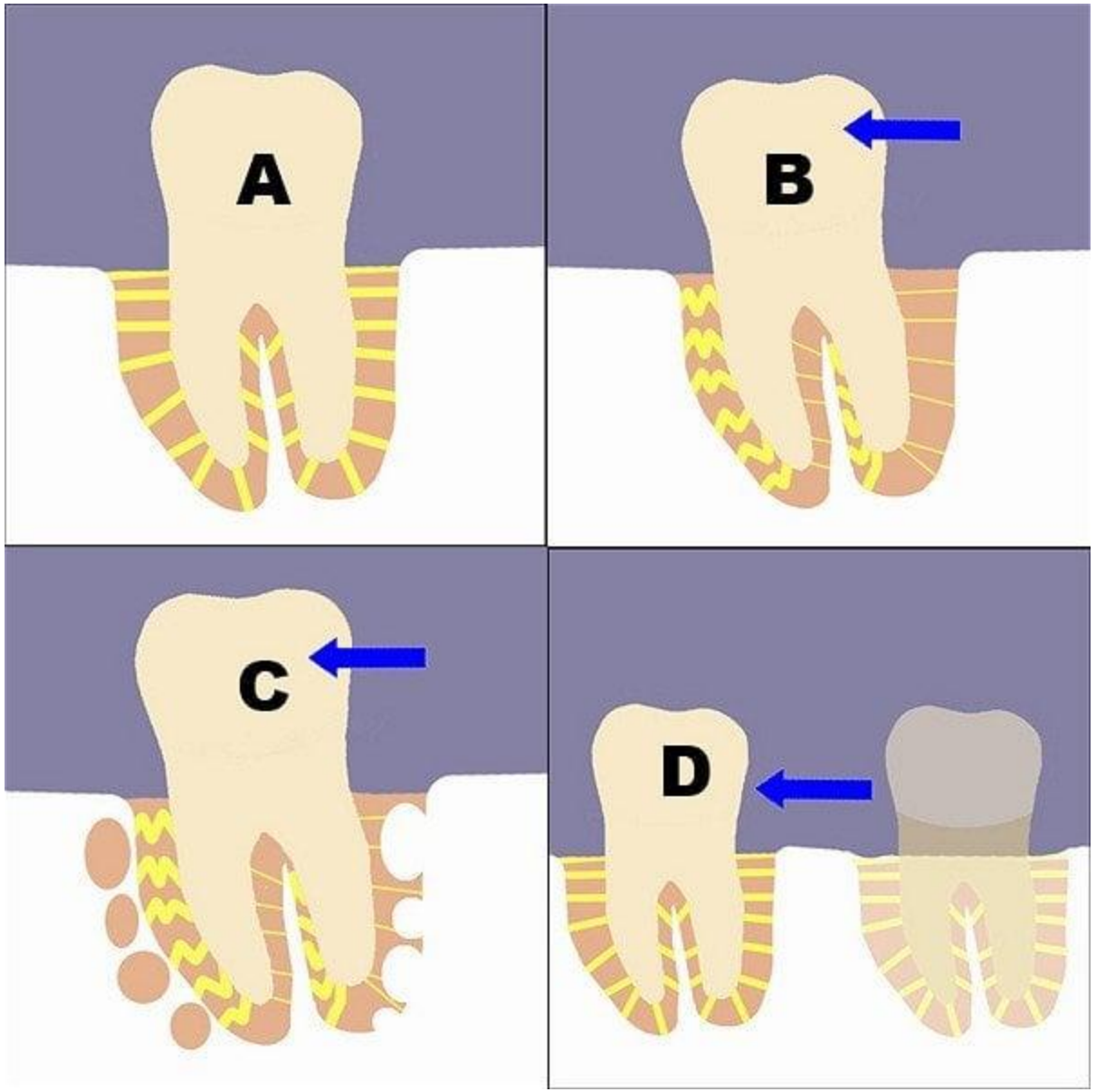
# Exam

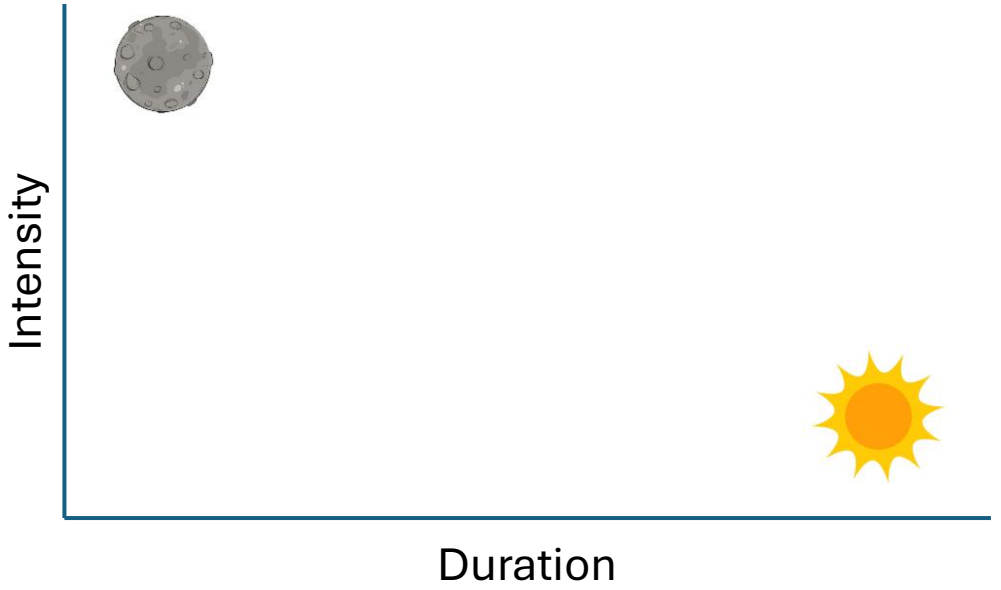
Tells you what they have

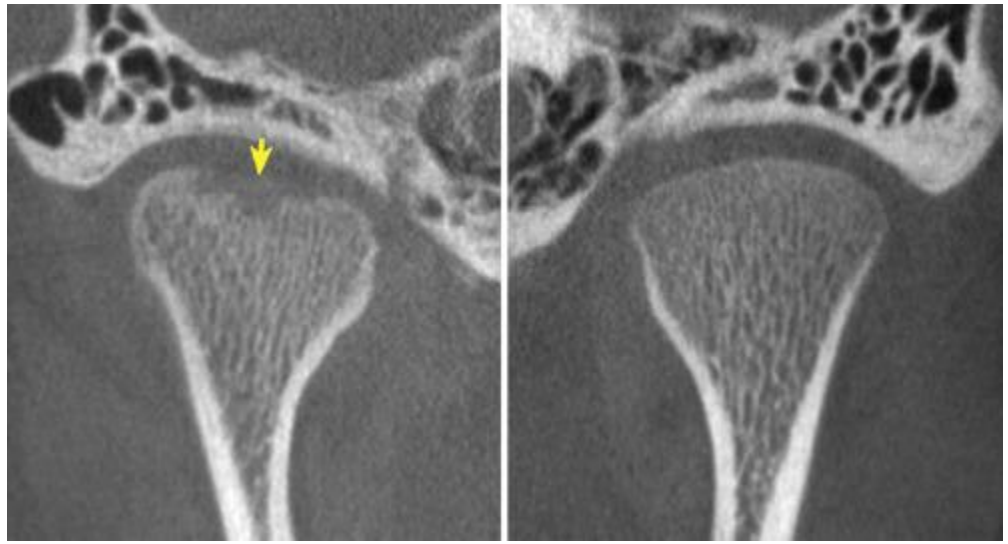
# History

Tells you why they have it
(and sometimes what they have)

# Stress / Intense Focus


A
B
C
D


Intensity
Duration



# Stress-Related Questions

- How are your stress levels?
- Are you more stressed now?
  - (if more stressed now) Do you foresee this stress ending in the near future?

# Addressing Stress / Intense Focus

- Not within our scope
- Show connection between them and TMD
- Eliminate unnecessary and removable stressors
- Psychologically relax during non-removable stressors
- Relax jaw when there is no time to psychologically relax
- See someone for the stress

# Daytime Jaw Habits

# Daytime Jaw Habits

- Clenching
  - Even if barely any force
- Tight jaw
  - Even when open
- Tight lips
- Lips or jaw to the side or forward
- Gum
- Resting jaw on hand
- Frequently checking bite
- Frequent excursions
- (Daytime grinding is incredibly rare)

# Daytime Jaw Habit-Related Exam

- Clenching
- Tight lips
- Lips or jaw to the side or forward
- Gum
- Resting jaw on hand
- Frequently checking bite
- Frequent excursions

# Daytime Jaw Habit-Related Questions

- Do you find your jaw to be tight during the day?
  - Then likely doing 10x more

- (Why are patients so often unaware of daytime jaw habits?)

# Addressing Daytime Jaw Habit

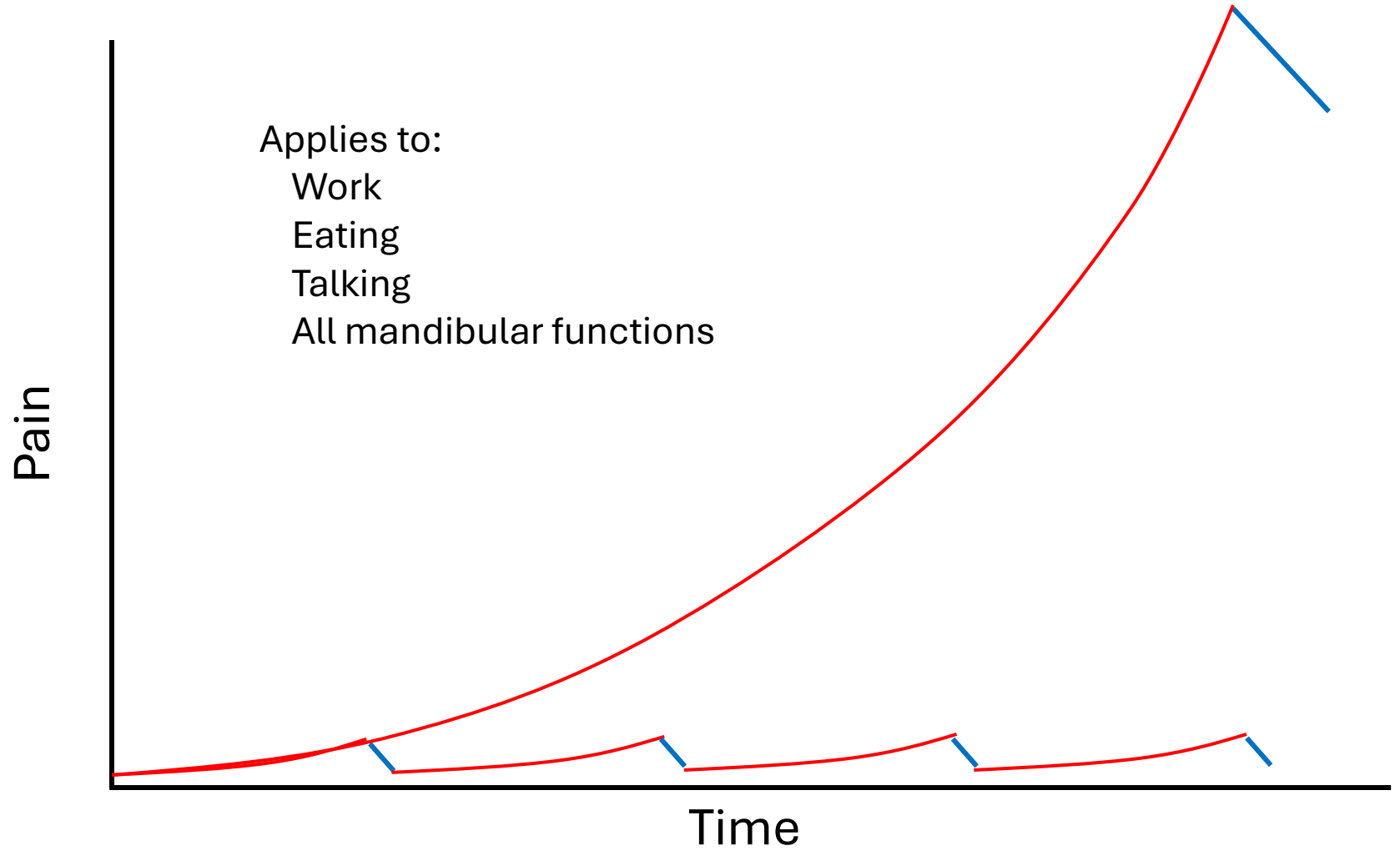
- Become very familiar with items on this checklist
- Set hourly alarms
- When alarm rings, check if doing any of those behaviors
- If so, ask “what made me do it?”
    1. Eliminate (if possible)
    2. Psychologically cope (if possible)
    3. Relax the jaw

**The Oral Behavior Checklist**

How often do you do each of the following activities, based on **the last month**? If the frequency of the activity varies, choose the higher option. Please place a (√) response for each item and do not skip any items.

| | Activities During Sleep | None of the time | < 1 Night /Month | 1-3 Nights /Month | 1-3 Nights /Week | 4-7 Nights/ Week |
|---|---|---|---|---|---|---|
| 1 | Clench or grind teeth **when asleep**, based on any information you may have | ☐ | ☐ | ☐ | ☐ | ☐ |
| 2 | Sleep in a position that puts pressure on the jaw (for example, on stomach, on the side) | ☐ | ☐ | ☐ | ☐ | ☐ |
| | **Activities During Waking Hours** | **None of the time** | **A little of the time** | **Some of the time** | **Most of the time** | **All of the time** |
| 3 | Grind teeth together **during waking hours** | ☐ | ☐ | ☐ | ☐ | ☐ |
| 4 | Clench teeth together **during waking hours** | ☐ | ☐ | ☐ | ☐ | ☐ |
| 5 | Press, touch, or hold teeth together other than while eating (that is, contact between upper and lower teeth) | ☐ | ☐ | ☐ | ☐ | ☐ |
| 6 | Hold, tighten, or tense muscles without clenching or bringing teeth together | ☐ | ☐ | ☐ | ☐ | ☐ |
| 7 | Hold or jut jaw forward or to the side | ☐ | ☐ | ☐ | ☐ | ☐ |
| 8 | Press tongue forcibly against teeth | ☐ | ☐ | ☐ | ☐ | ☐ |
| 9 | Place tongue between teeth | ☐ | ☐ | ☐ | ☐ | ☐ |
| 10 | Bite, chew, or play with your tongue, cheeks or lips | ☐ | ☐ | ☐ | ☐ | ☐ |
| 11 | Hold jaw in rigid or tense position, such as to brace or protect the jaw | ☐ | ☐ | ☐ | ☐ | ☐ |
| 12 | Hold between the teeth or bite objects such as hair, pipe, pencil, pens, fingers, fingernails, etc | ☐ | ☐ | ☐ | ☐ | ☐ |
| 13 | Use chewing gum | ☐ | ☐ | ☐ | ☐ | ☐ |
| 14 | Play musical instrument that involves use of mouth or jaw (for example, woodwind, brass, string instruments) | ☐ | ☐ | ☐ | ☐ | ☐ |
| 15 | Lean with your hand on the jaw, such as cupping or resting the chin in the hand | ☐ | ☐ | ☐ | ☐ | ☐ |
| 16 | Chew food on one side only | ☐ | ☐ | ☐ | ☐ | ☐ |
| 17 | Eating between meals (that is, food that requires chewing) | ☐ | ☐ | ☐ | ☐ | ☐ |
| 18 | Sustained talking (for example, teaching, sales, customer service) | ☐ | ☐ | ☐ | ☐ | ☐ |
| 19 | Singing | ☐ | ☐ | ☐ | ☐ | ☐ |
| 20 | Yawning | ☐ | ☐ | ☐ | ☐ | ☐ |
| 21 | Hold telephone between your head and shoulders | ☐ | ☐ | ☐ | ☐ | ☐ |

# Fatigue


Applies to:
Work
Eating
Talking
All mandibular functions
Pain
Time

# Posture

## Upright Sitting

*Upright sitting posture*. The user's torso and neck are approximately vertical and in-line, the thighs are approximately horizontal, and the lower legs are vertical.

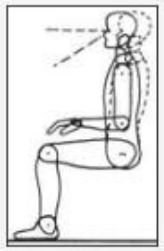


*Figure 1. Upright sitting posture*

*Figure 2. The user's torso and neck are approximately vertical and in-line, the thighs are approximately horizontal, and the lower legs are vertical.*

## Standing

*Standing posture*. The user's legs, torso, neck, and head are approximately in-line and vertical with feet slightly apart. The user may also elevate one foot on a rest while in this posture.

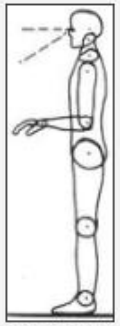


*Figure 3. Standing posture*

*Figure 4. The user's legs, torso, neck, and head are approximately in-line and vertical with feet slightly apart.*

## Declined Sitting

*Declined sitting posture*. The user's thighs are inclined with the buttocks higher than the knee and the angle between the thighs and the torso is greater than 90 degrees. The torso is vertical or slightly reclined and the legs are vertical. This position should not inhibit the ability to easily reach the keyboard or view the monitor.

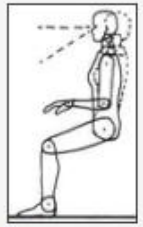


*Figure 5. Declined sitting position*

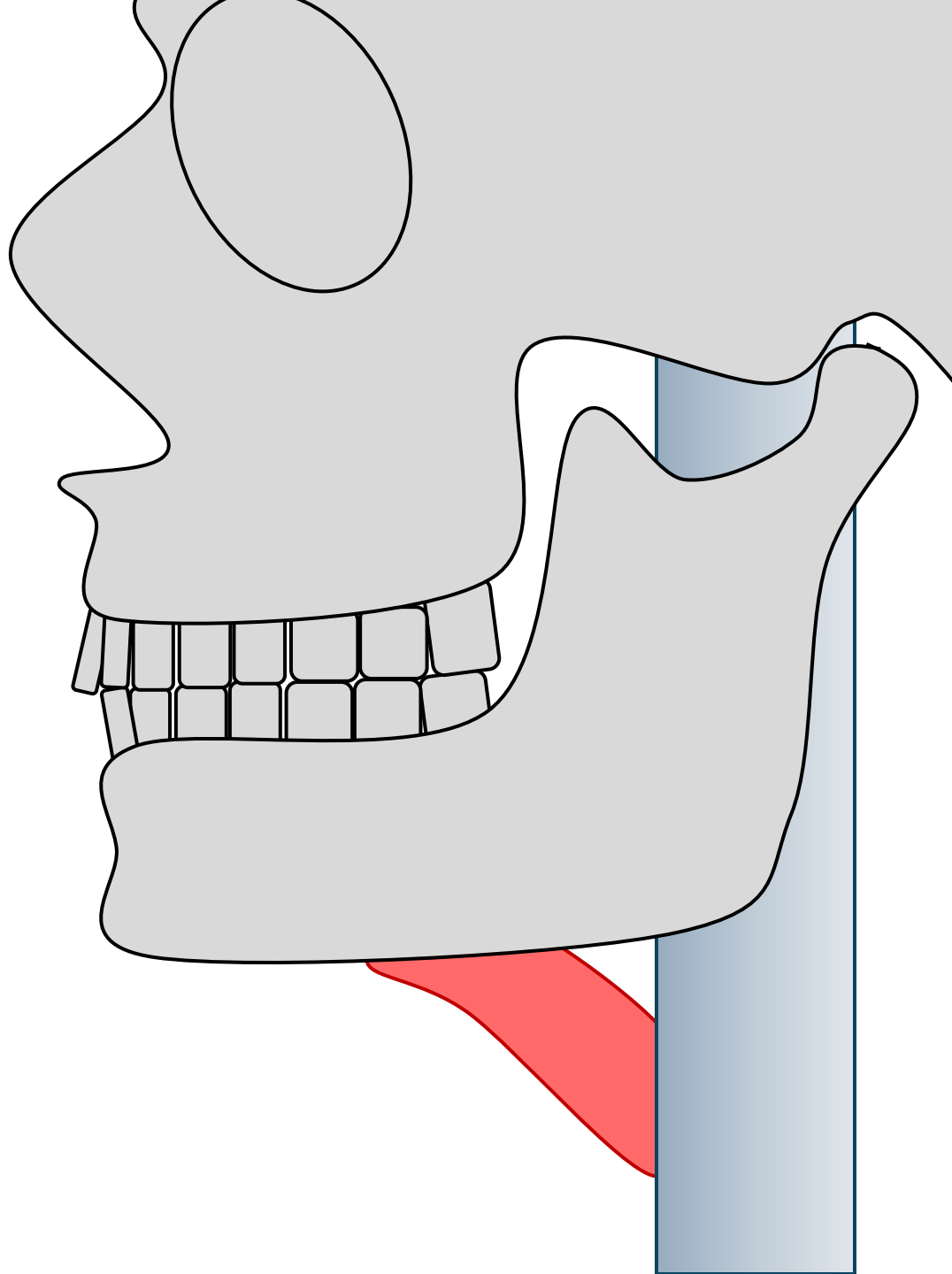
*Figure 6. The user's thighs are inclined with the buttocks higher than the knee and the angle between the thighs and the torso is greater than 90 degrees. The torso is vertical or slightly reclined and the legs are vertical.*

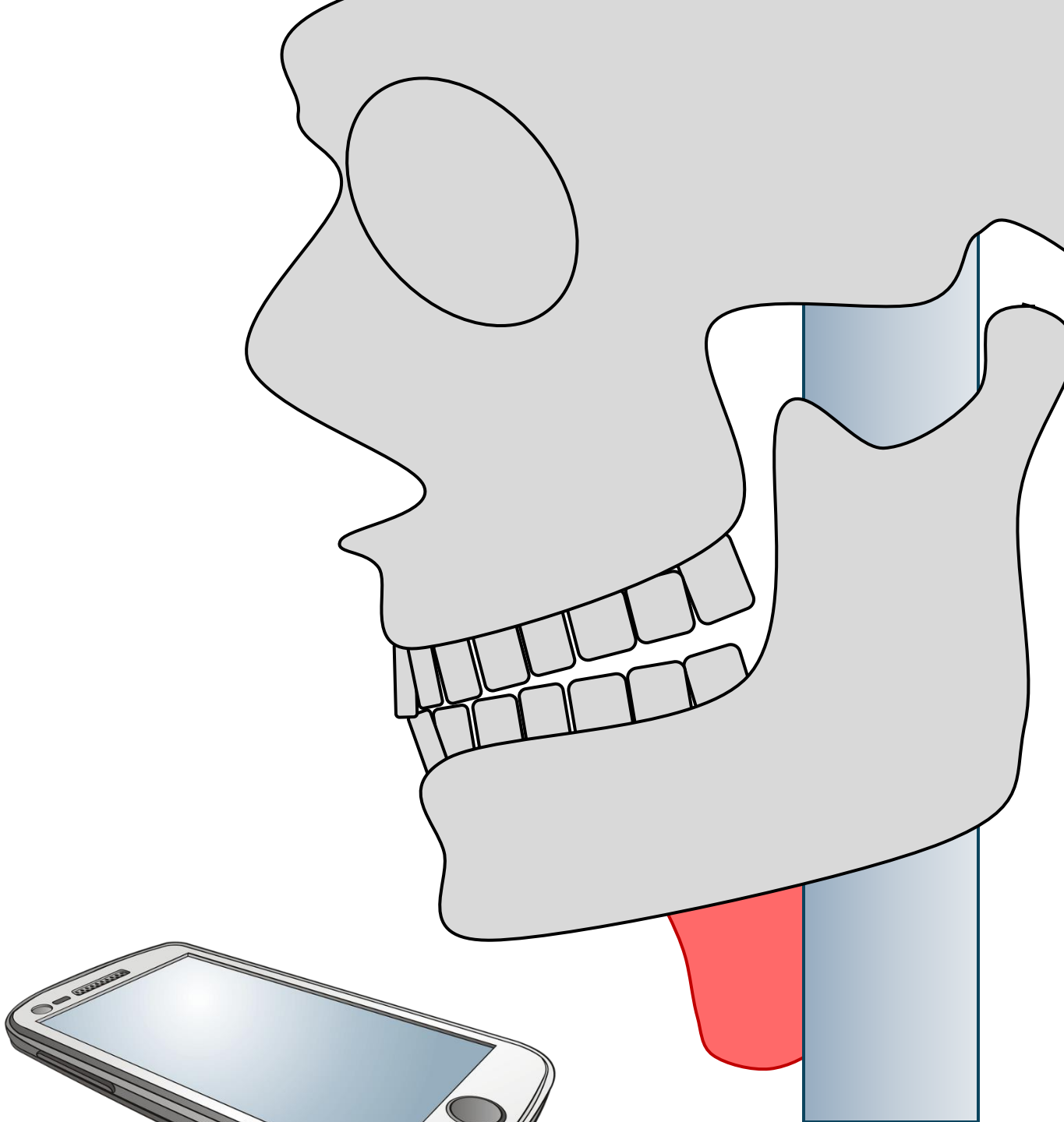
## Reclined Sitting

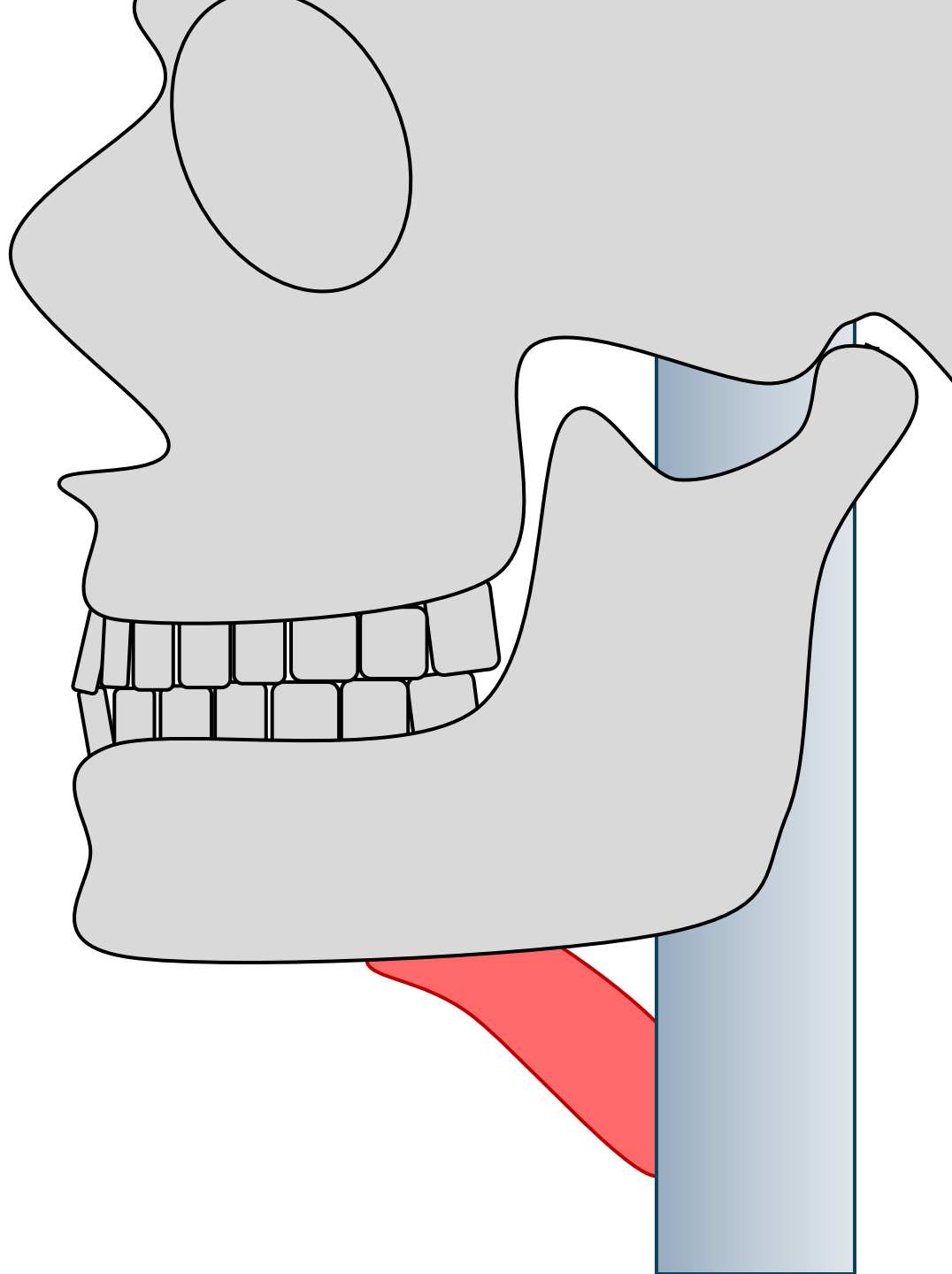
*Reclined sitting posture*. The user's torso and neck are straight and recline between 105 and 120 degrees from the thighs.

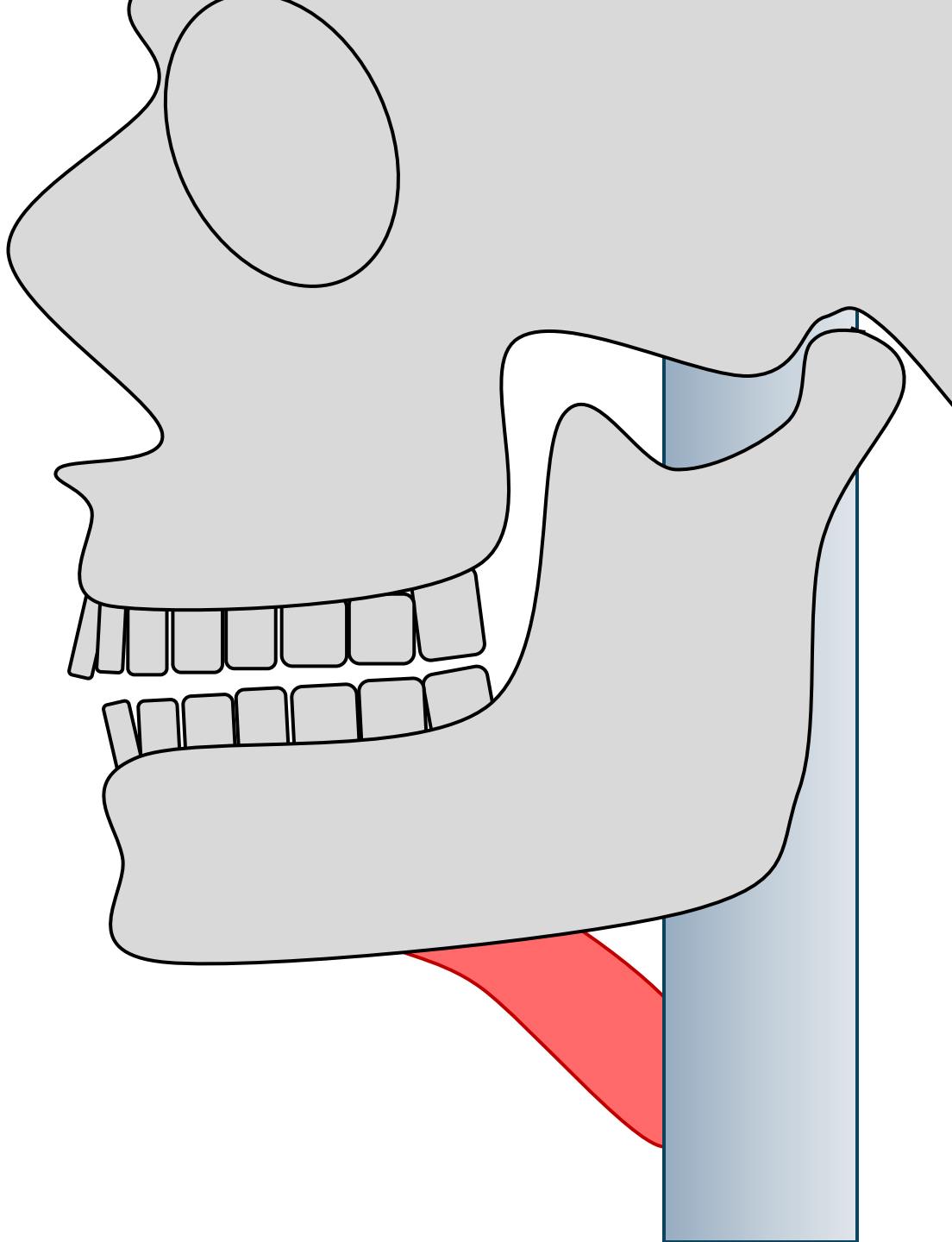
*Figure 7. Reclined sitting posture*

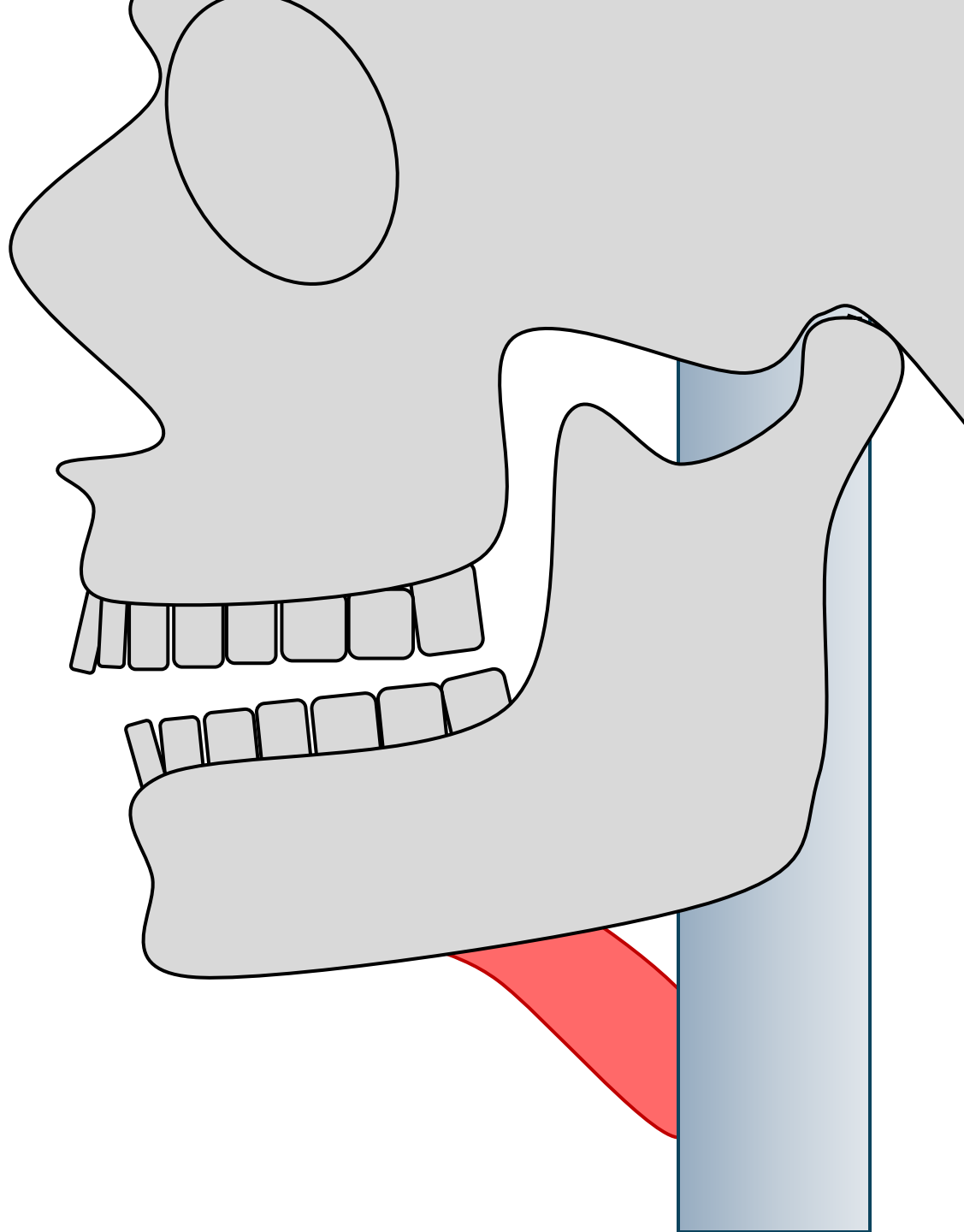
*Figure 8. The user's torso and neck are straight and recline between 105 and 120 degrees from the thighs.*











# Posture-Related Exam

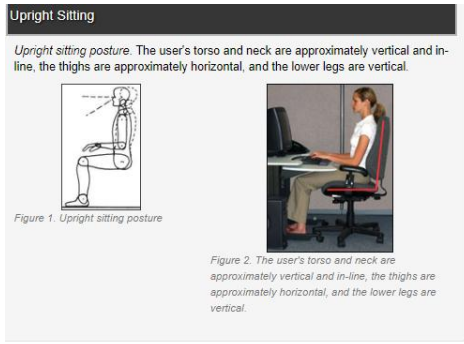
- In waiting room
- Walking toward you
- Standing

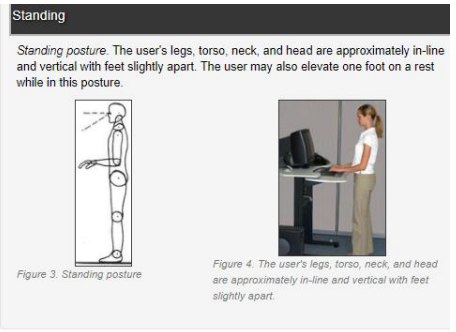
# Posture-Related Questions

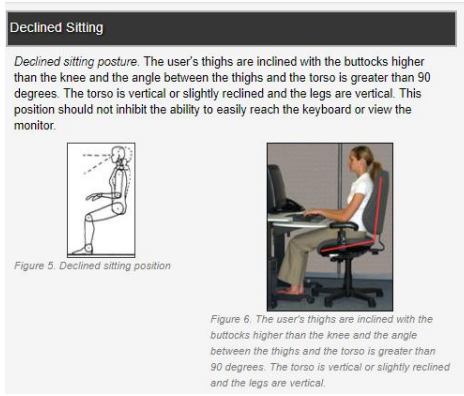
- Does it bother you more at work?  Less on weekends?
- What does your work schedule look like?
- How often do you take breaks?  What do you do on break?
- What does your workstation look like?
- Has anyone assessed your workstation?

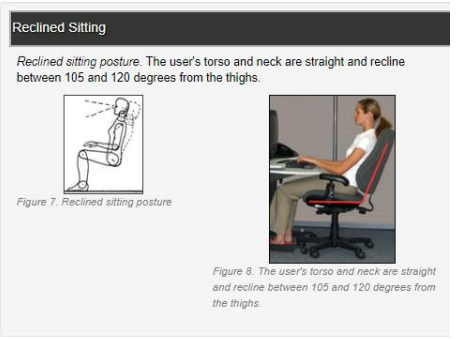
# Addressing Posture

- Not within our scope
- Direct to OSHA website
  - Review with family member, coworker
    - Posture
    - Hardware
    - Scheduling
    - Lighting
  - Ask them to take picture of posture at worst
- Frequent breaks
  - Example: Every 15 minutes, stand or walk 30 seconds
- Check hourly

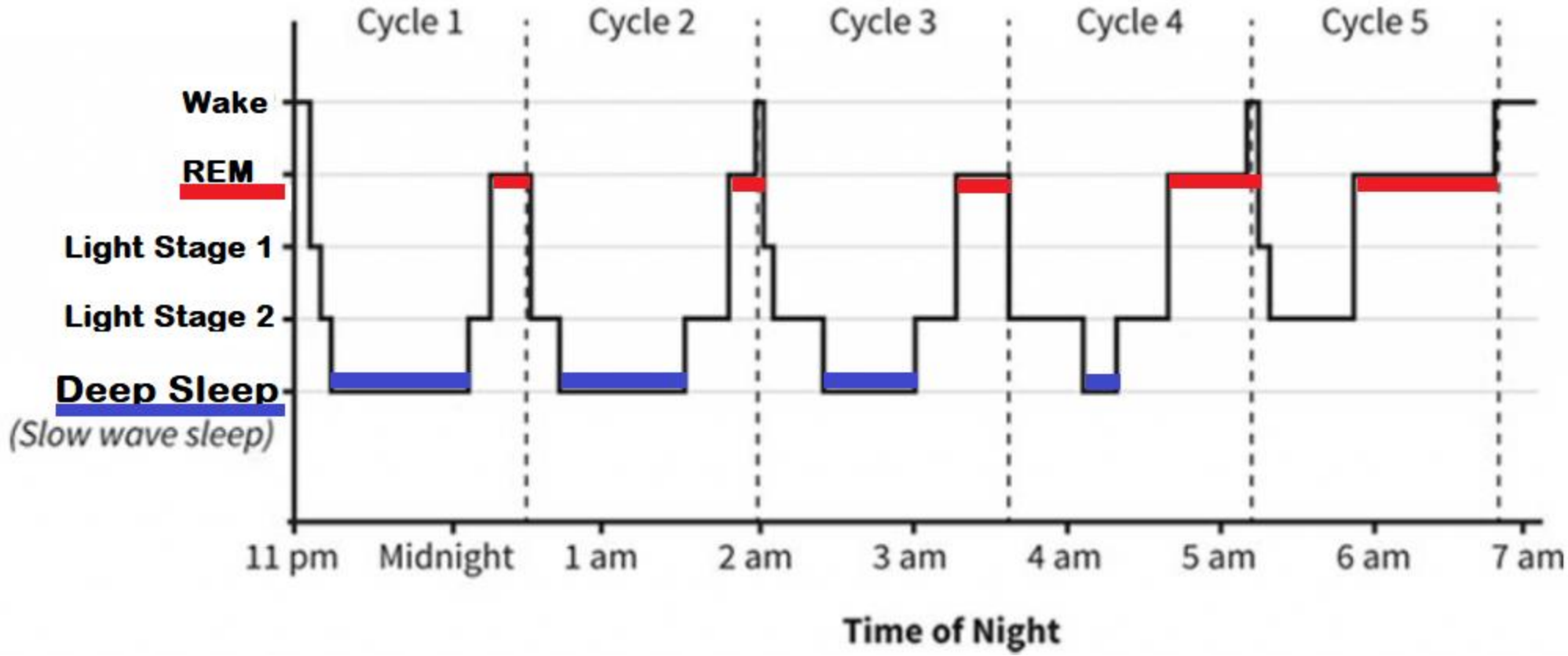


# Inadequate Sleep


Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Wake
REM
Light Stage 1
Light Stage 2
Deep Sleep
(Slow wave sleep)
11 pm
Midnight
1 am
2 am
3 am
4 am
5 am
6 am
7 am
Time of Night

# Deep Sleep Is When We

- Get musculoskeletal repair
- Get emotional repair
- Get cognitive maintenance
- Normalize pain thresholds

# With Inadequate Sleep We

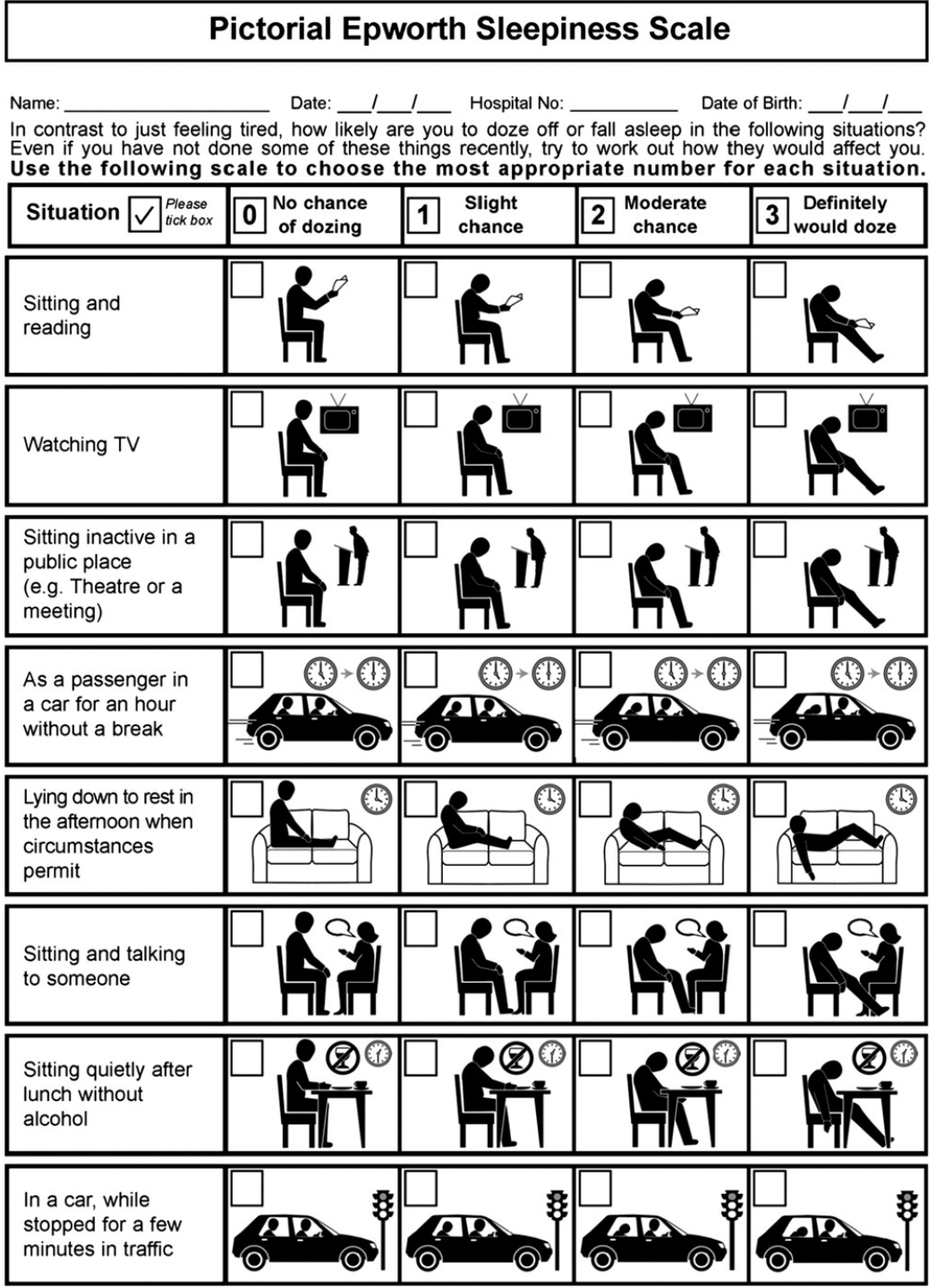
- Have more muscle and joint breakdown
- Have more stress, anxiety, depression
- Take longer to do the same tasks → more stress, less time to sleep
- Have pain that may not exist (or be less intense) if we slept better


Deep
Sleep
Stage 2
Stage 1

# Inadequate Sleep-Related Questions

- Might they have inadequate sleep of any type?
  - Not spending enough time in bed
  - Insomnia
  - Poor sleep architecture
  - Sleep apnea
- Score may trigger sleep referral to sleep physician

| | |
|---|---|
| <10 | You are most likely getting enough sleep |
| 10–16 | You may be suffering from excessive daytime sleepiness |
| 16+ | You are dangerously sleepy |



**Pictorial Epworth Sleepiness Scale**

Name: _____ Date: ___/___/___ Hospital No: _____ Date of Birth: ___/___/___

In contrast to just feeling tired, how likely are you to doze off or fall asleep in the following situations? Even if you have not done some of these things recently, try to work out how they would affect you. **Use the following scale to choose the most appropriate number for each situation.**

| Situation ☑ *Please tick box* | 0 No chance of dozing | 1 Slight chance | 2 Moderate chance | 3 Definitely would doze |
|---|---|---|---|---|
| Sitting and reading | ☐ | ☐ | ☐ | ☐ |
| Watching TV | ☐ | ☐ | ☐ | ☐ |
| Sitting inactive in a public place (e.g. Theatre or a meeting) | ☐ | ☐ | ☐ | ☐ |
| As a passenger in a car for an hour without a break | ☐ | ☐ | ☐ | ☐ |
| Lying down to rest in the afternoon when circumstances permit | ☐ | ☐ | ☐ | ☐ |
| Sitting and talking to someone | ☐ | ☐ | ☐ | ☐ |
| Sitting quietly after lunch without alcohol | ☐ | ☐ | ☐ | ☐ |
| In a car, while stopped for a few minutes in traffic | ☐ | ☐ | ☐ | ☐ |

# Inadequate Sleep-Related Questions

- Might they have Obstructive Sleep Apnea?
- OSA may trigger nocturnal bruxism

**STOP-Bang questionnaire**

Please answer the following questions by checking "yes" or "no" for each one.

| | Yes | No |
|---|---|---|
| **S**noring (Do you snore loudly?) | ❑ | ❑ |
| **T**iredness (Do you often feel tired, fatigued, or sleepy during the daytime?) | ❑ | ❑ |
| **O**bserved Apnea (Has anyone observed that you stop breathing, or choke or gasp during your sleep?) | ❑ | ❑ |
| High Blood **P**ressure (Do you have or are you being treated for high blood pressure?) | ❑ | ❑ |
| **B**MI (Is your body mass index more than 35 kg per $m^2$?) | ❑ | ❑ |
| **A**ge (Are you older than 50 years?) | ❑ | ❑ |
| **N**eck Circumference (Is your neck circumference greater than 40 cm [15.75 inches]?) | ❑ | ❑ |
| **G**ender (Are you male?) | ❑ | ❑ |

*Score 1 point for each positive response.*

*Scoring interpretation: 0 to 2 = low risk, 3 or 4 = intermediate risk, ≥5 = high risk.*

*Source: University Health Network, Toronto, Ontario, Canada (www.stopbang.ca/osa/screening/php). Used with permission from Sauk Prairie Healthcare.*

# Addressing Inadequate Sleep

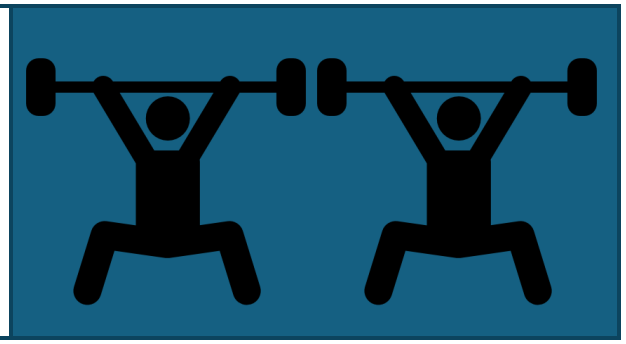
- Diagnosing is not within our scope
- Treating besides appliances is not within our scope
- Make connection between inadequate sleep and TMD
- Direct them to sleep resources
  - https://www.sleepfoundation.org/sleep-hygiene
- Refer if indicated

# Nocturnal Bruxism

# When to Make a Night Guard?

# Appropriate For Nocturnal Parafunction

- Solid signs/symptoms
  - Upon awakening
    - Pain
    - Discomfort
    - Tightness
    - Fatigue
  - Roommate or parent report of grinding sounds
    - But most nocturnal parafunction is clenching (silent)



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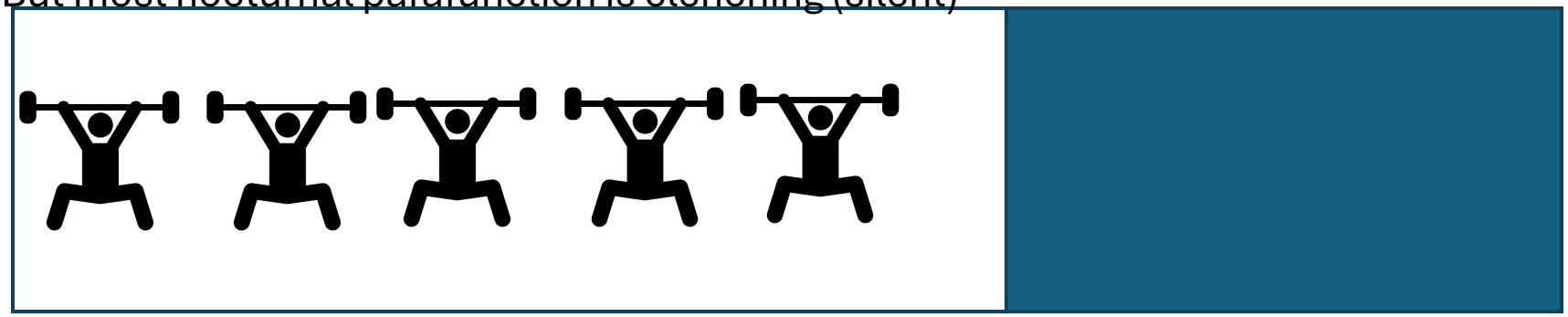


# What about OTC Guards?

| Pros | Cons |
|---|---|
| Cheaper<br>• Short-term, such as a rough patch<br>• Unsure if it would work<br>• Financial constraints<br>• Want it immediately | Short lifespan (sometimes only weeks) |
| ~50% as much chance of working as a guard from dentist | Often not retentive |
| | May not cover all posterior teeth |

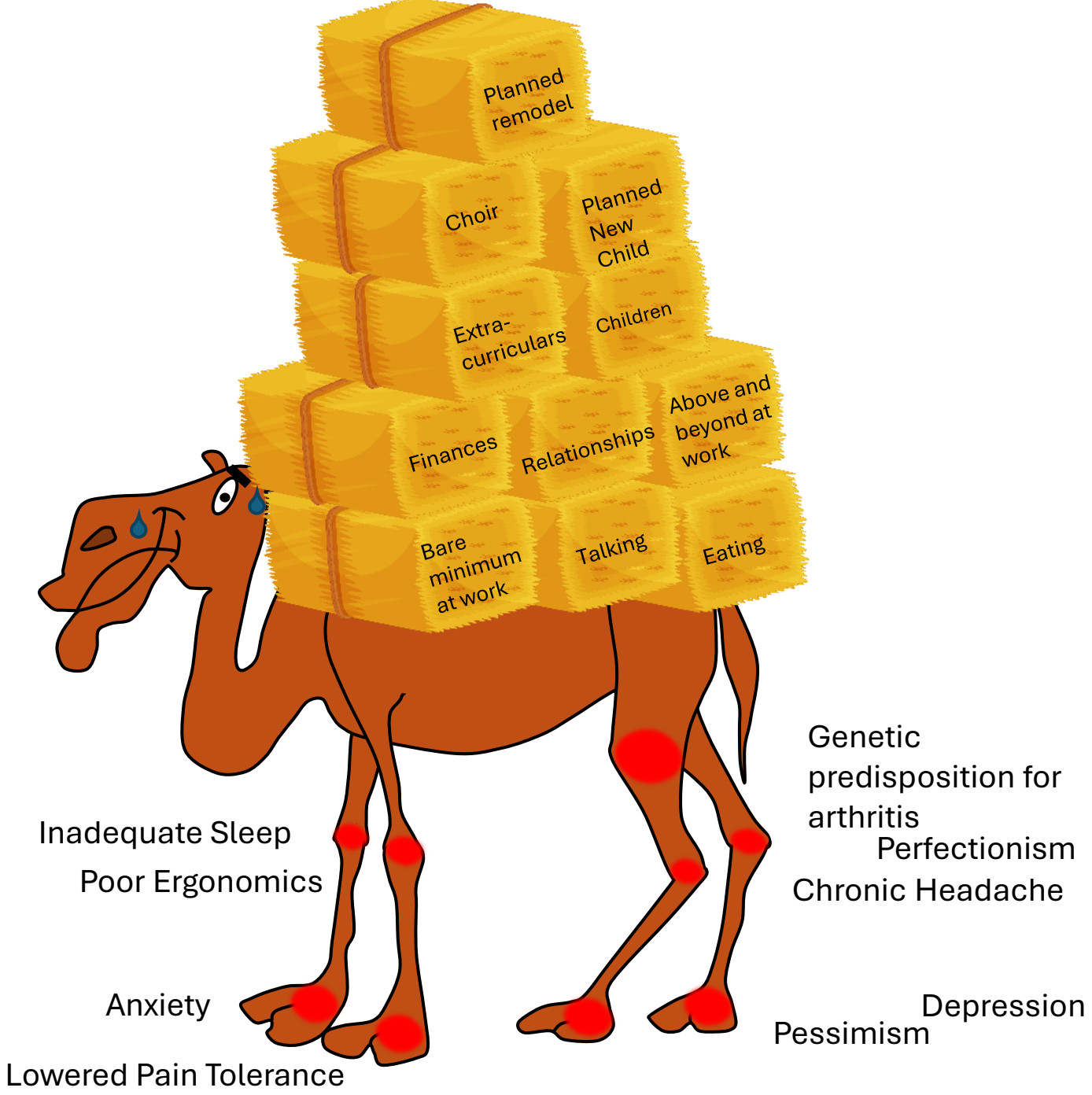
# A Few More Words On Cause-Based Treatment

# The Most Reliable Answers Come From Non-Leading Questions

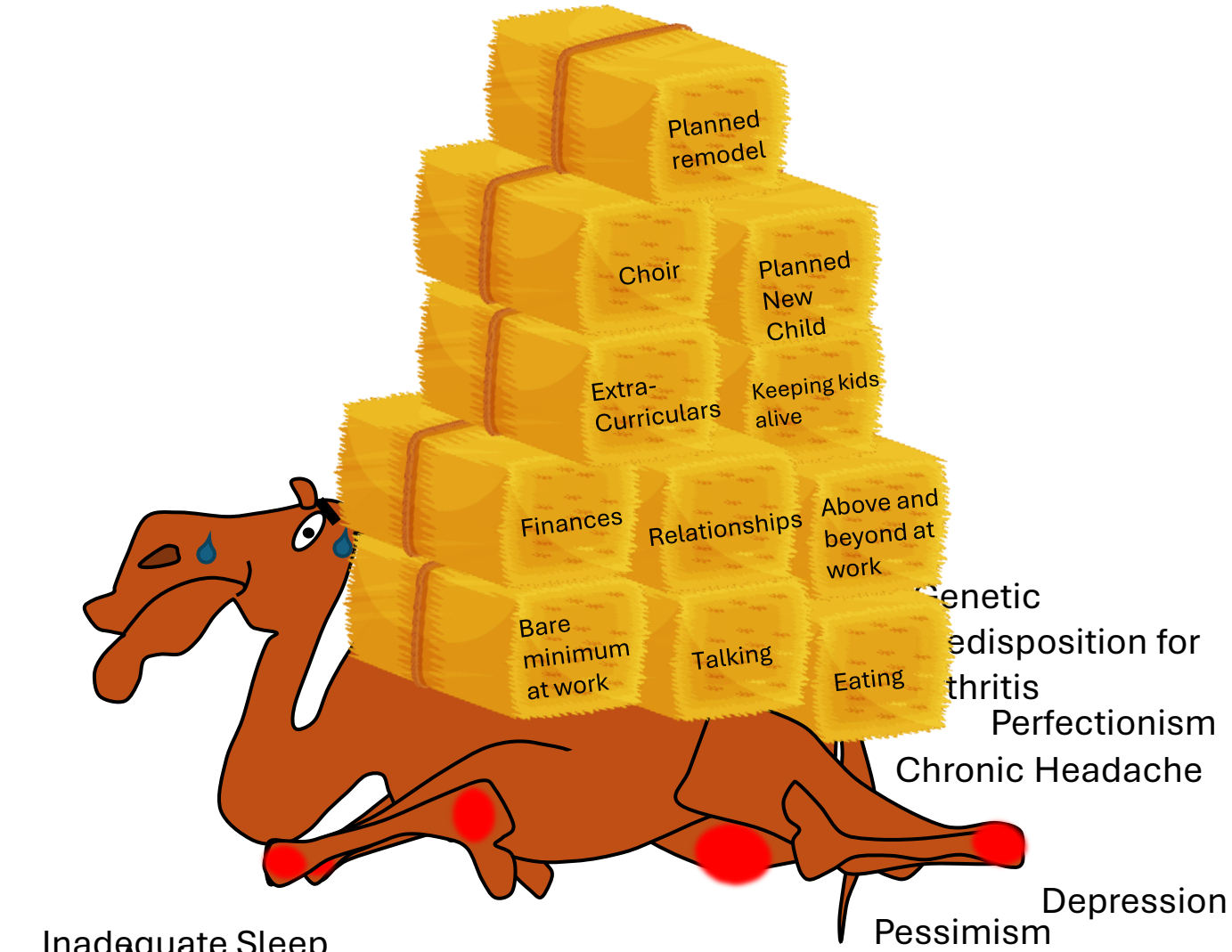
- Leading Questions:
  - Are you stressed?
  - Do you grind or clench?

# So the first questions you should ask:

1. What do you think is/are the cause(s)?
2. Have there been any changes in your life around the time it started?
    1. Work
    2. Non-work
3. When is it worse?
4. What helps?
5. What worsens it?


Planned remodel
Choir
Planned New Child
Extra-curriculars
Children
Finances
Relationships
Above and beyond at work
Bare minimum at work
Talking
Eating
Genetic predisposition for arthritis
Perfectionism
Chronic Headache
Inadequate Sleep
Poor Ergonomics
Anxiety
Depression
Pessimism
Lowered Pain Tolerance

# And this is just for the present



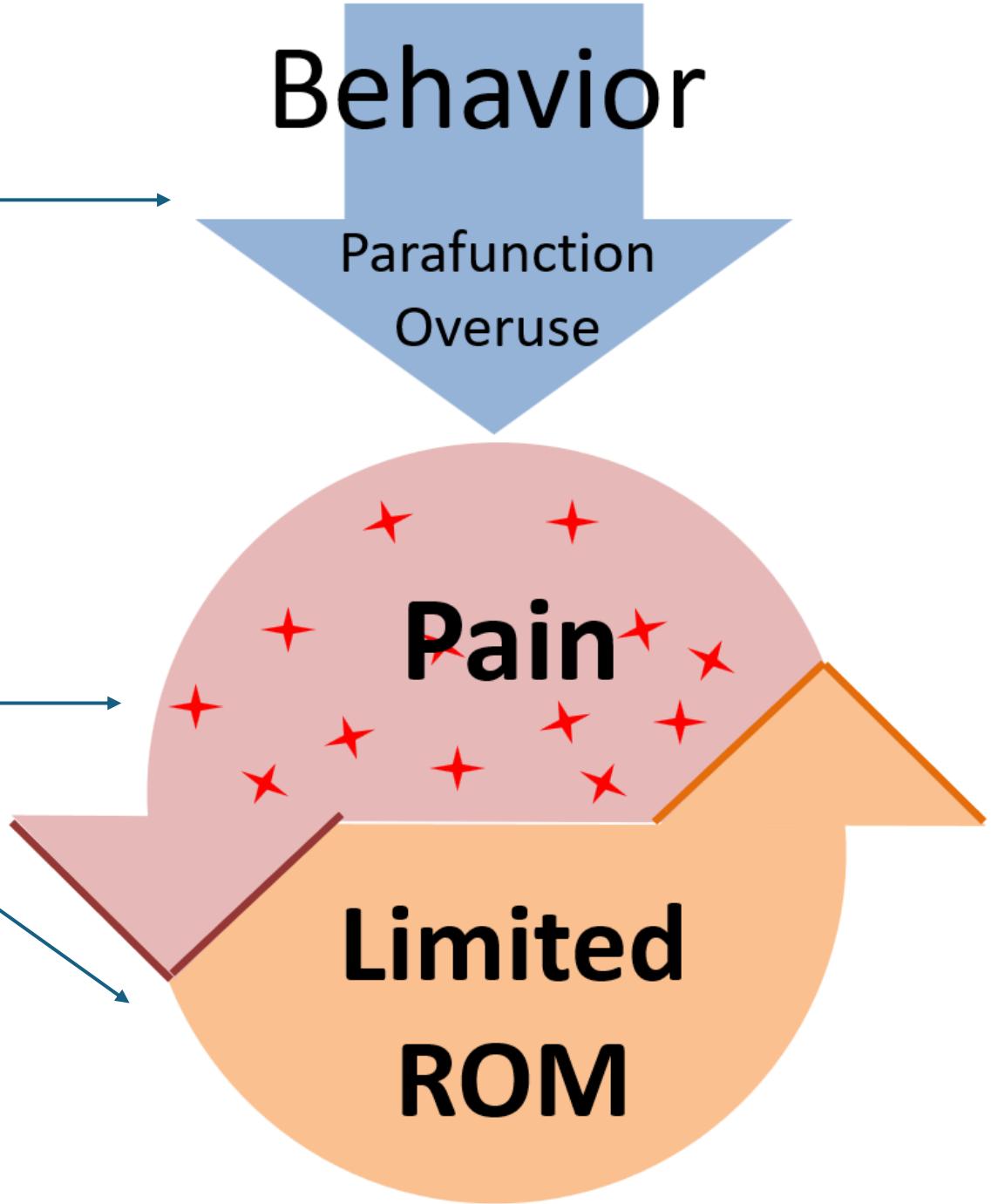
# The Solutions

- Reduce or fix
  - Inherently negatives
- Reduce
  - Excessives

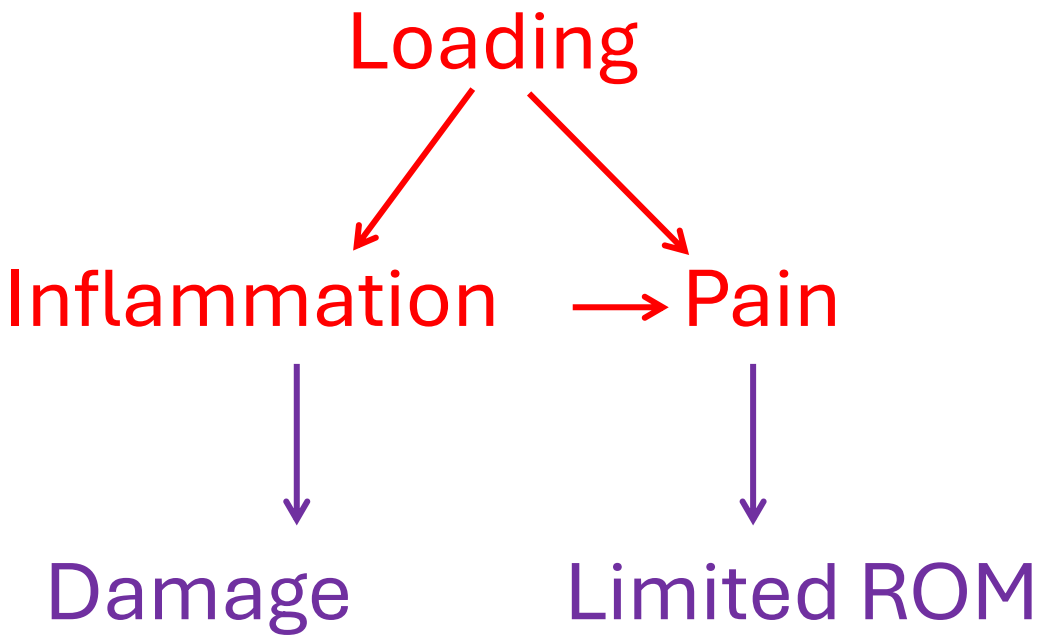
# Treatments That Are Not Necessarily Cause-Based

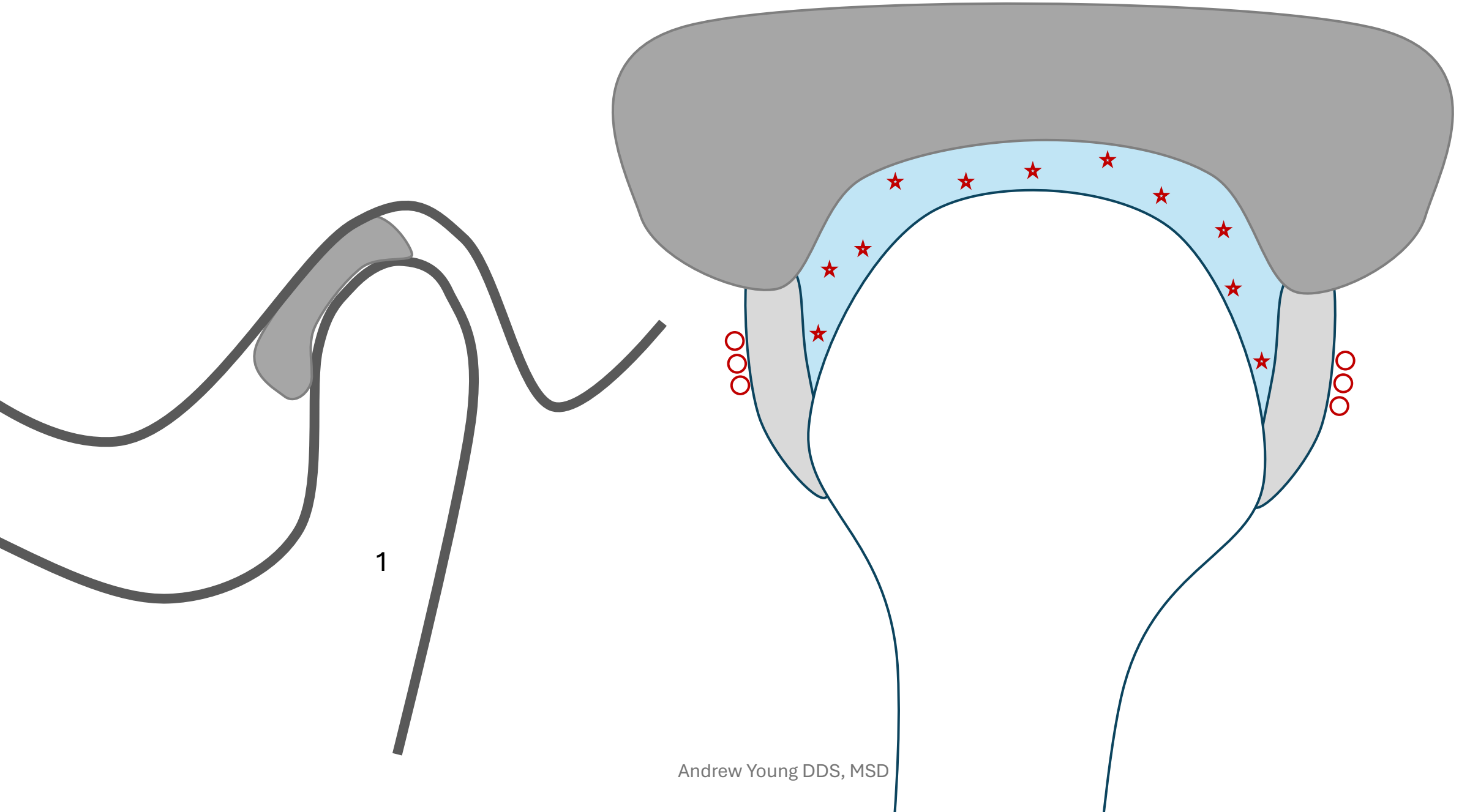
Ideally patients eliminate this
In reality, they can only reduce it a little
That alone may not be enough
Old habits die hard (and slowly)

So some effort must be put into this



# TMJ pathological Process

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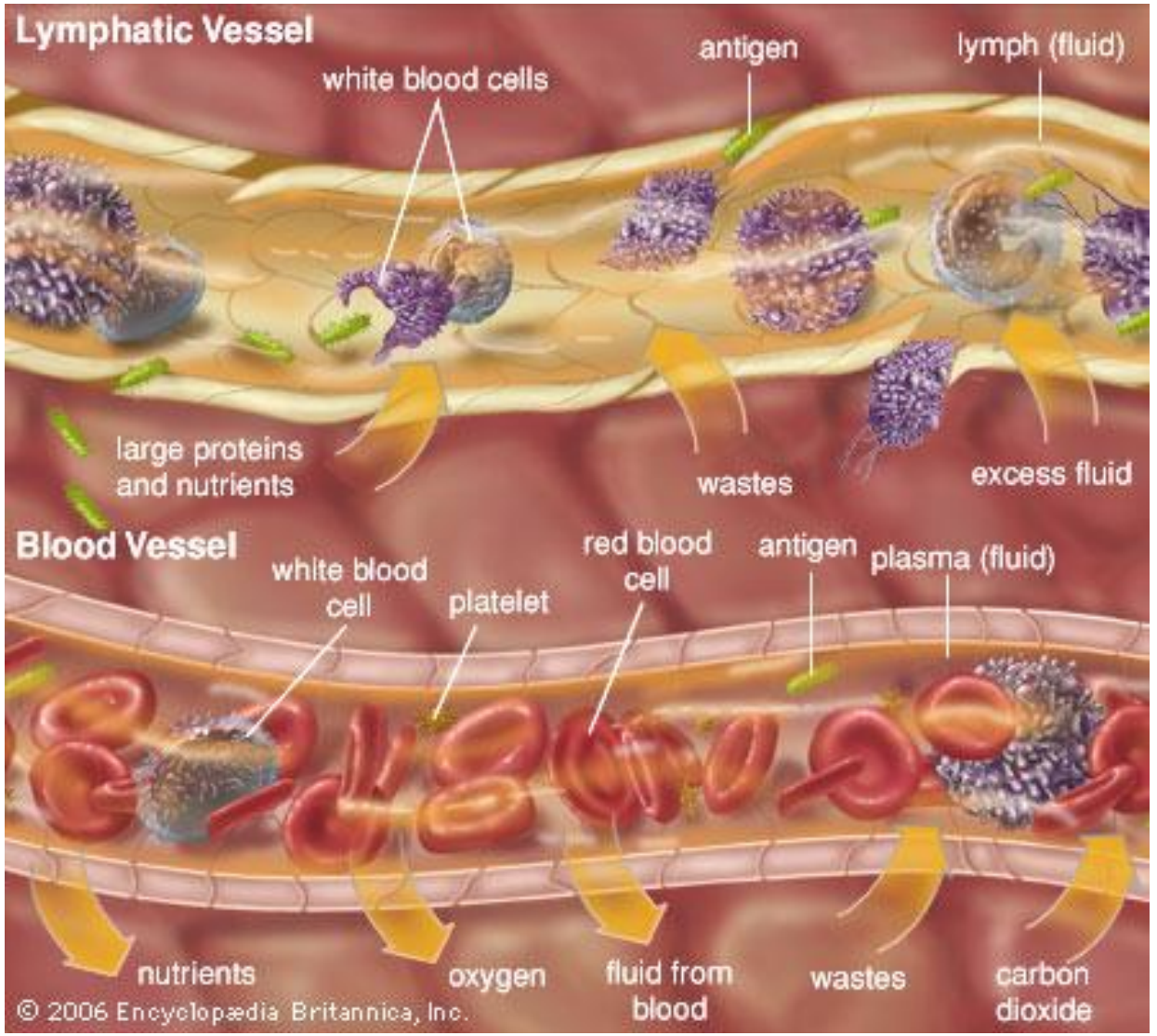
Lymphatic Vessel
white blood cells
antigen
lymph (fluid)
large proteins and nutrients
wastes
excess fluid
Blood Vessel
white blood cell
platelet
red blood cell
antigen
plasma (fluid)
nutrients
oxygen
fluid from blood
wastes
carbon dioxide
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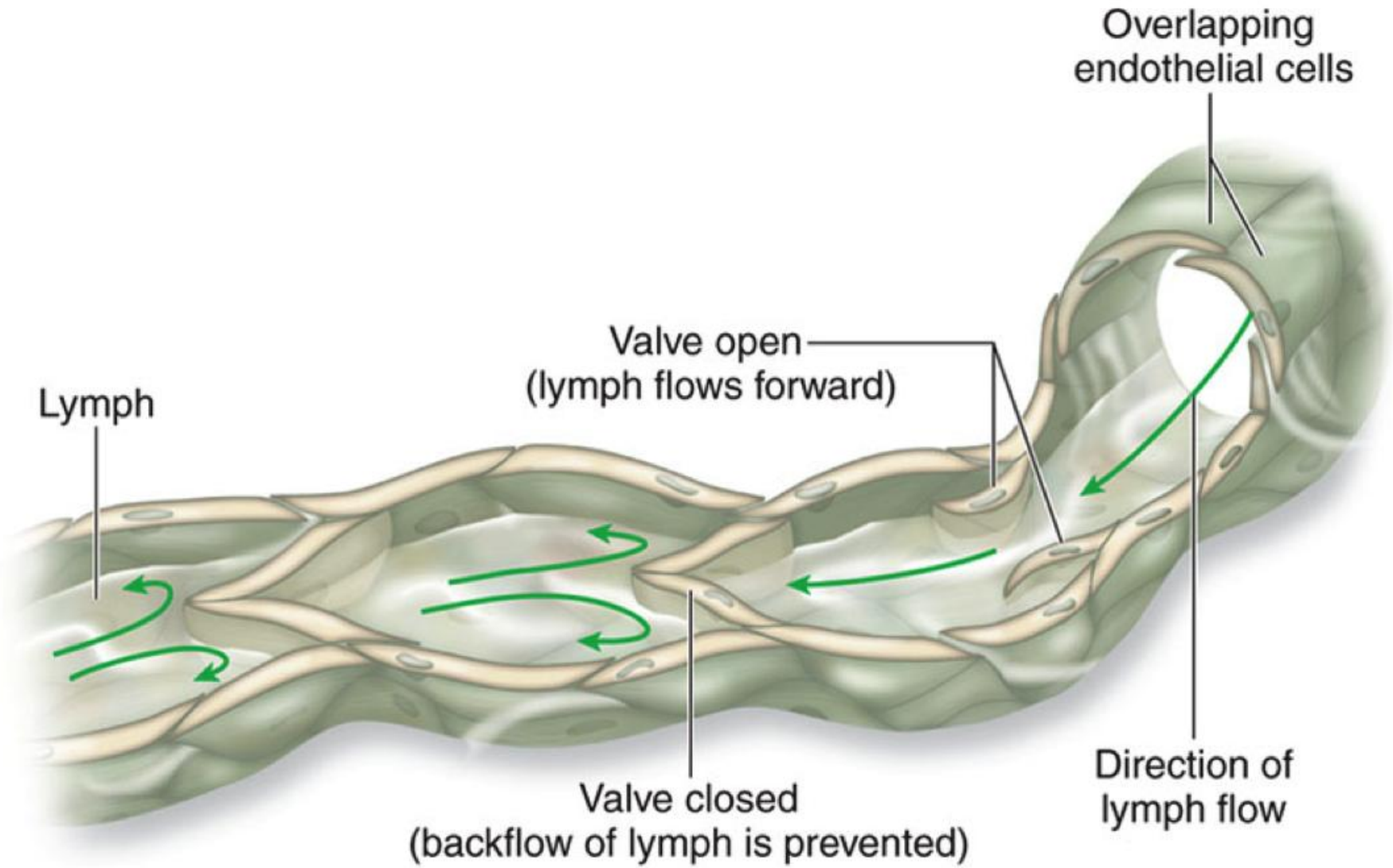



Andrew Young DDS, MSD

# Self-Massage

Appropriate for:

- Masseter pain
- Temporalis pain
- Other muscles are not accessible for an effective massage

Mechanism



Cherkin DC et al, Ann Intern Med 2009
Furlan AD et al, Cochrane Database Syst Rev 2002

# Self-Massage

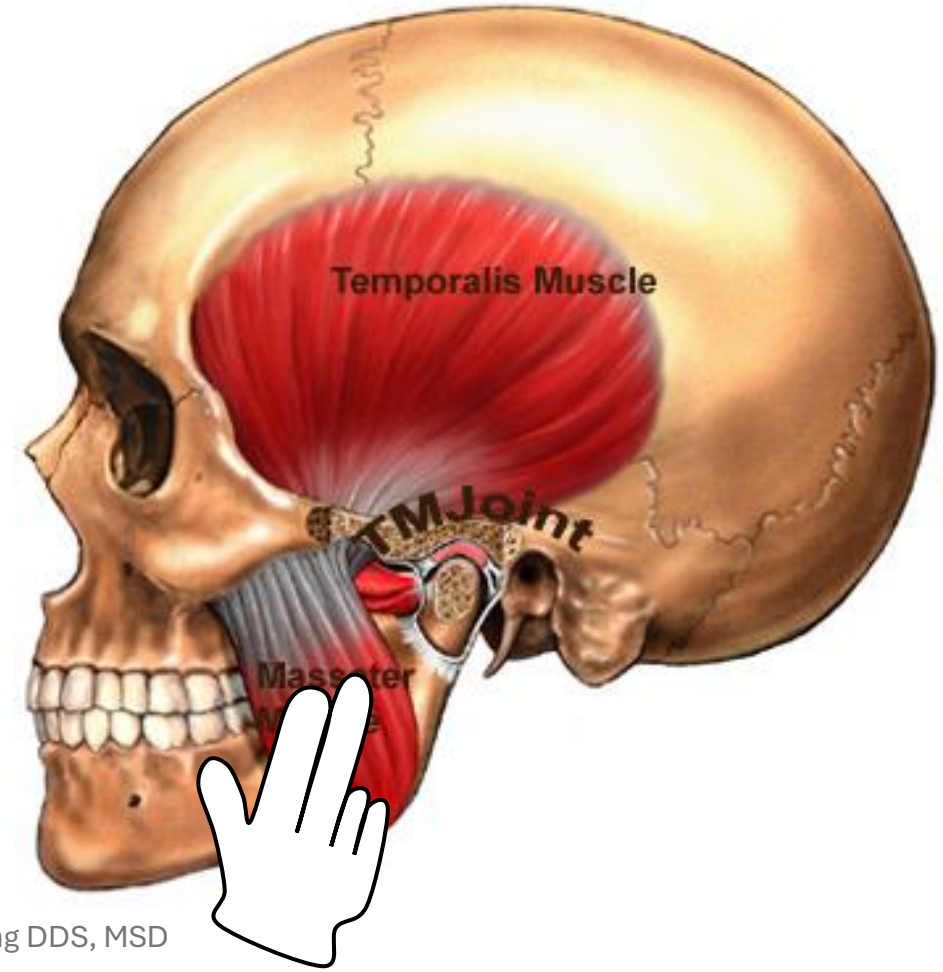
- Mechanism
  - Pulsing works chemicals out of muscle
  - Pain relief allows longer stretching

# Self-Massage

- Technique
  - (Eg, masseter) Each morning, hands on masseters and clench
  - Palpate entire muscle, looking for sore spots
  - Rest of the day, massage those sore spots

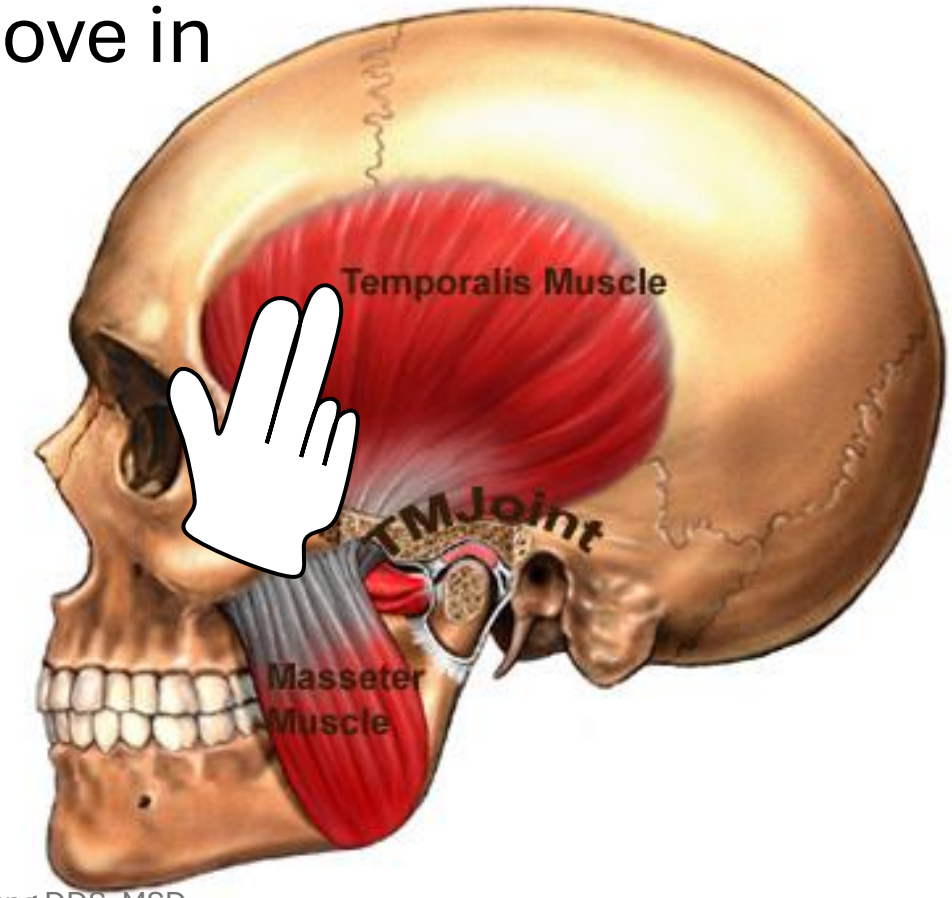
# Self-Massage

- Technique
  - With 2-3 fingers, ovals perpendicular to fibers

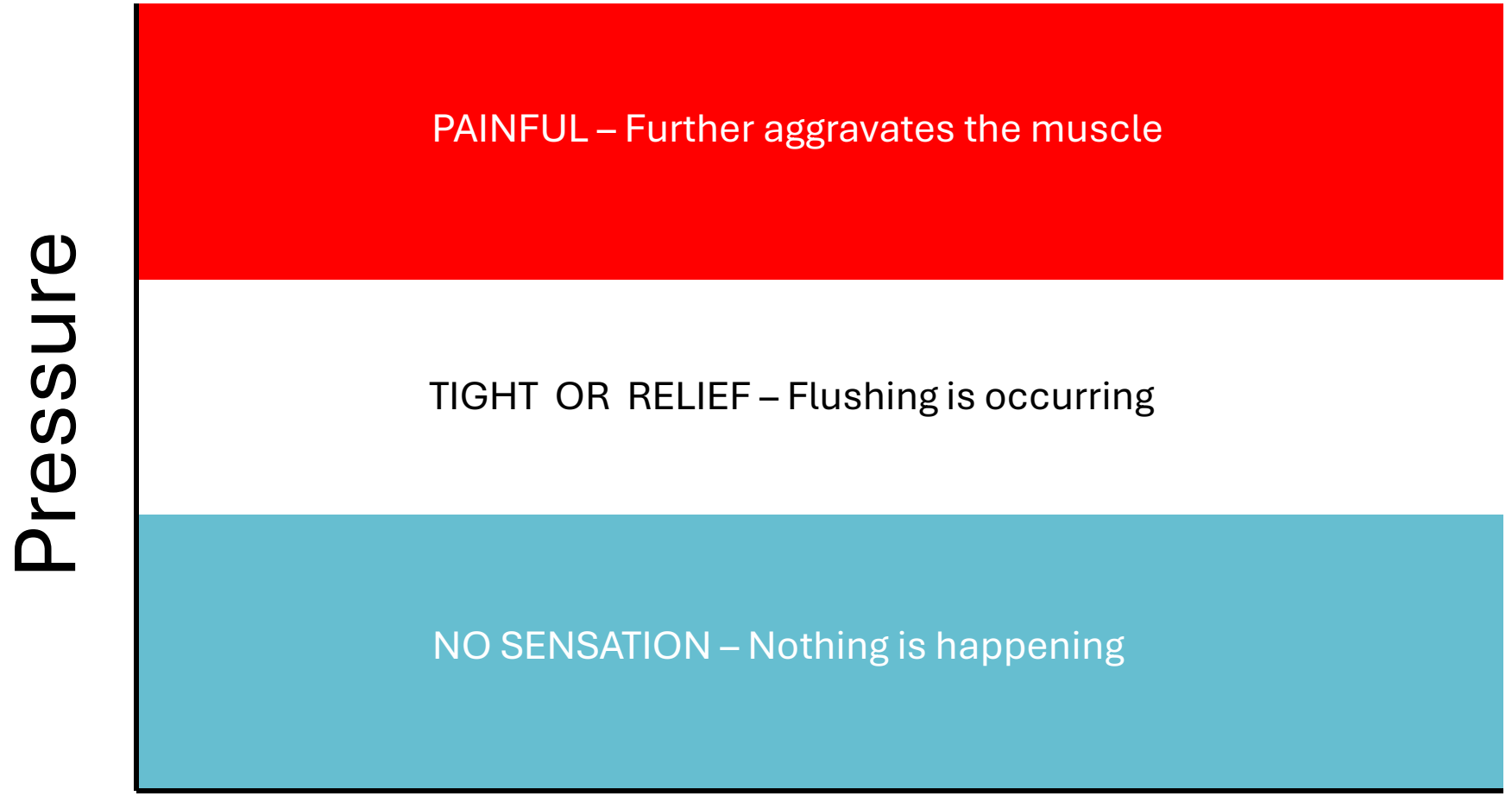


# Self-Massage

- Technique
  - With 2-3 fingers, move in small circles



# Self-Massage



# Self-Massage

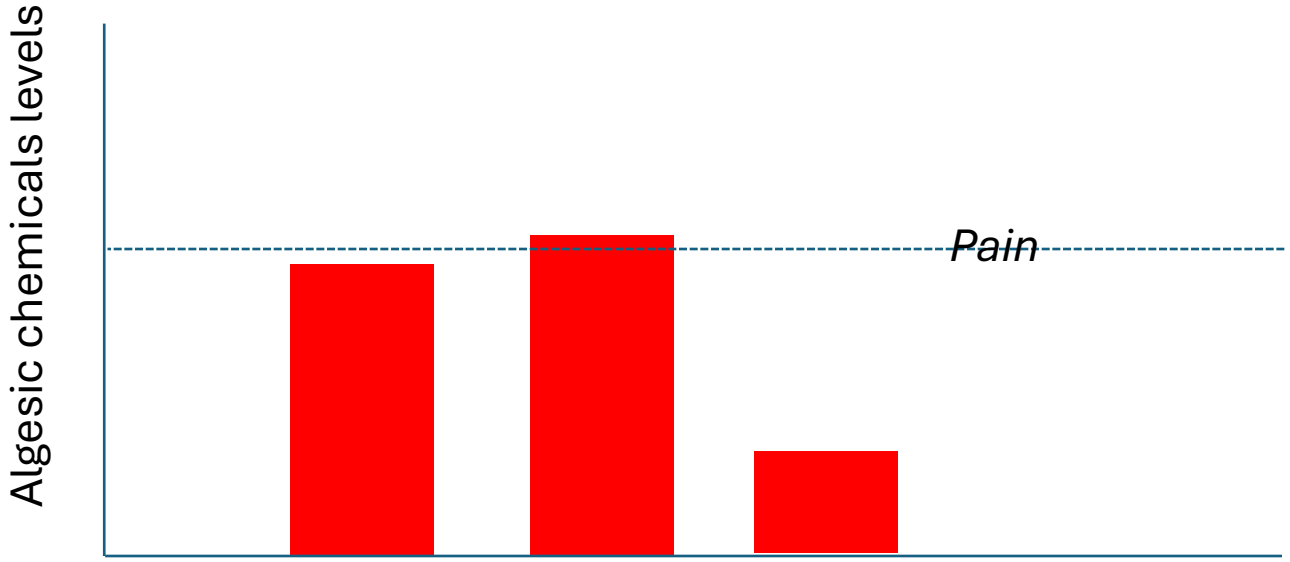
- Technique
  - Periodically stretch widely, but
    - Not past safe range
    - Avoid pain

# Self-Massage

- Technique
  - One minute per pair of muscles every hour
    - Prevents accidentally over-massaging a muscle

# Self-Massage

- Technique
  - Perform even if not in pain at the moment
  - Perform even though relief is transient
    - Cleansing is gradual



# Warm  compress

- Appropriate for:
  - Any sore muscles
- Mechanism
  - Dilates blood vessels
    - Faster clearance of algesic chemicals
  - Soothes
    - Allows better stretching

Brosseau L et al, Cochrane Database Syst Rev 2003

# Warm  Compress

- Instructions
  - Microwavable compress
  - No moist towel
  - 20 minutes
  - Stretch every minute
  - At least once a day (ideally, 3-5 times a day)

Brosseau L et al, Cochrane Database Syst Rev 2003

# Cold Compress

- Appropriate for:
  - Any sore muscles
- Mechanism
  - Analgesic
    - Allows better stretching


Brosseau L et al, Cochrane Database Syst Rev 2003

# Cold Compress

- Instructions
  - Bare ice pack to sore muscle until numb
  - Then remove, until numbness stops
  - Then re-apply
  - Continue in this just-numb stage for 10-20 minutes
  - wide opening every minute

Brosseau L et al, Cochrane Database Syst Rev 2003

# Muscle Relaxants

- Relaxes hyperactive muscles
  - Does not weaken muscles
- 30-90 days
  - To help through acute phase
  - To allow better home care
- Is within general dentist's field

1625. Dentistry is the diagnosis or treatment, by surgery or other method, of diseases and lesions and the correction of malpositions of the human teeth, alveolar process, gums, jaws, or associated structures; and such diagnosis or treatment may include all necessary related procedures as well as the use of drugs, anesthetic agents, and physical evaluation. Without limiting the foregoing, a person

# Flexeril


- Cyclobenzaprine 10 mg
- 1 tablet an hour before bed
  - May start with half tablet
- 30 – 90 tablets
- After 90 days, not too effective.

# Therapy Specifically for Joint Pain

# Topical NSAID

- Apply to TMJ before each meal and before bed
- (Have patient demonstrate where to apply)


# Frequencies

- When your hourly phone alarm goes off:
  - 1st: Check if you are doing anything on the Oral Behaviors Checklist, and if you are, address the cause
  - 2nd: Check your posture, and fix it
  - 3rd: Do your self-massage with stretch
- With each meal, and before bed: Apply Voltaren gel
- Twice a day
  - Warm compress
  - Cold compress

# TMDs That Need Treatment

- Pain
- Dysfunction
  - Mainly due to limitation in opening
- Arthritis
  - Progression can (though rarely) lead to traumatic occlusion and/or changes in appearance
- Bruxism
  - To reduce the damaging effects to teeth and/or bone

# We Generally Do Not Treat Solely Sounds

- Very common
- While clicks and pops are annoying, and usually persist for many years, they usually have no long-term clinical significance
  - Pain usually subsides within months
  - Rarely cause bony degeneration
    - Monitor for signs of degeneration (next slides)
- Locks gradually open, at a rate of 1 mm/mo