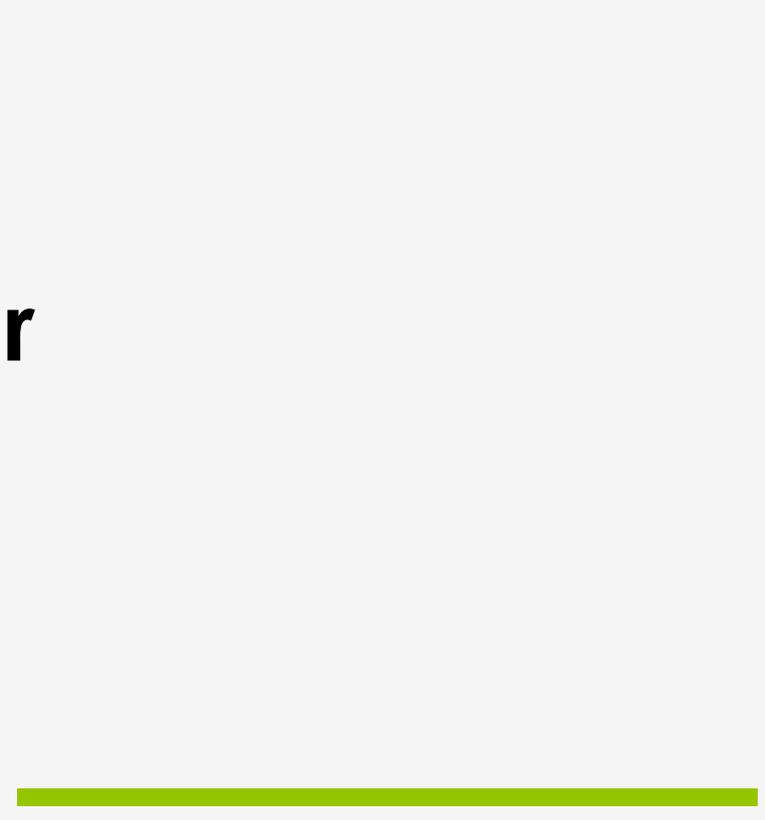


**Physical
examination for
temporomandibular
disorders (TMD)**

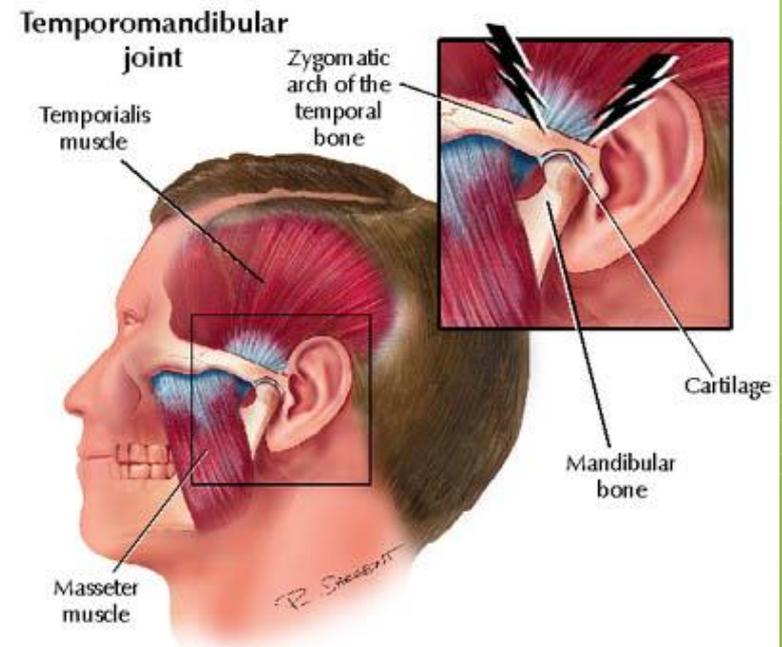


Define TMD

- Various musculoskeletal disorders of the masticatory system usually manifested by one or more of the following:
 - ***Joint sounds***
 - ***Limitation of jaw movement***
 - ***Muscle tenderness***
 - ***Joint tenderness***
 - ***Pain (in the preauricular area)***

Define TMD

- The specific TMD
 - can be limited to the joint, or
 - can be limited to the masticatory musculature, or
 - can involve both

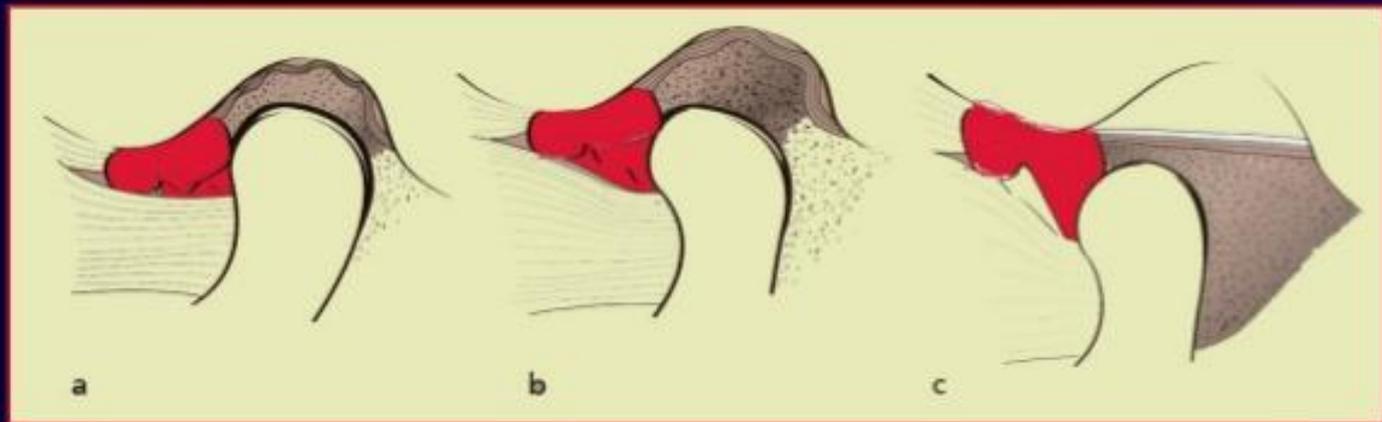


Classification for TMD

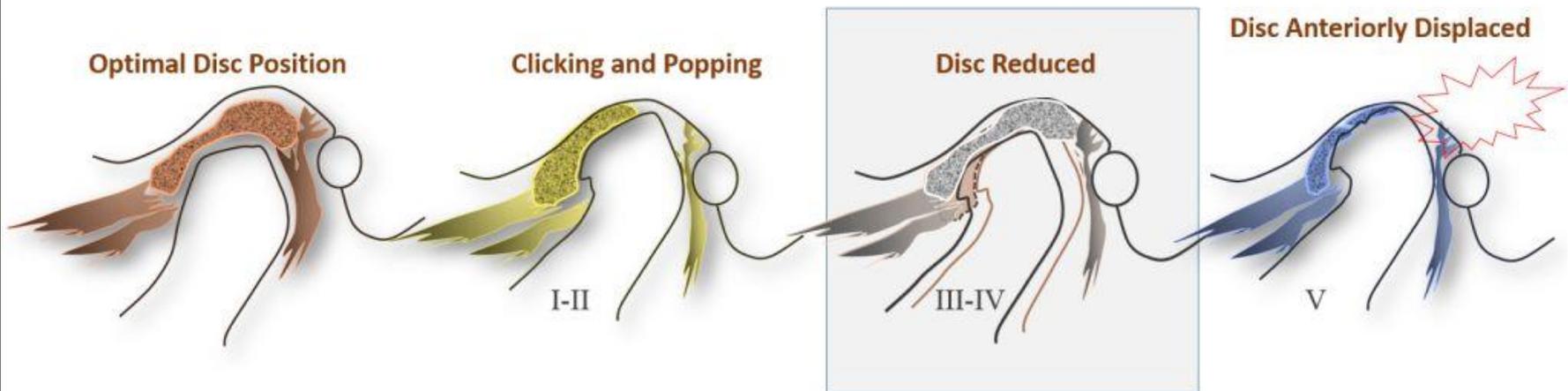
- Deviation in form
- Articular disc displacement
 - Disc displacement with reduction
 - Disc displacement without reduction
 - Acute/ Chronic
- TMJ hypermobility
- Dislocation
- Inflammatory conditions
 - Synovitis
 - Capsulitis

▪ Disc Displacement *Without Reduction*

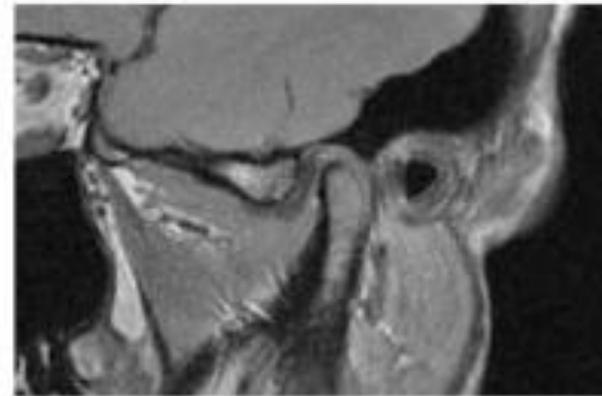
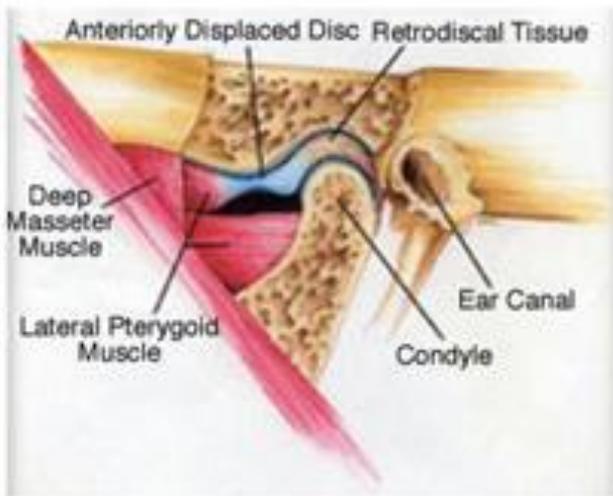
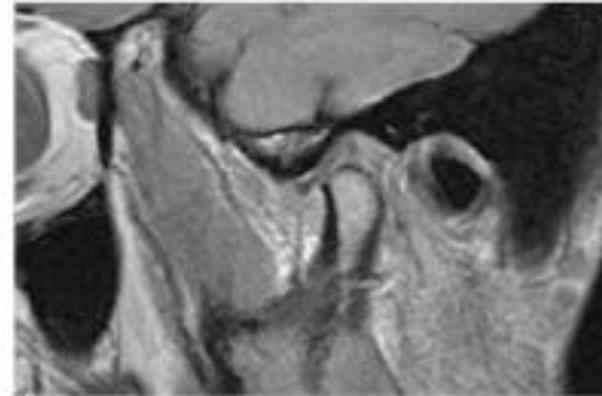
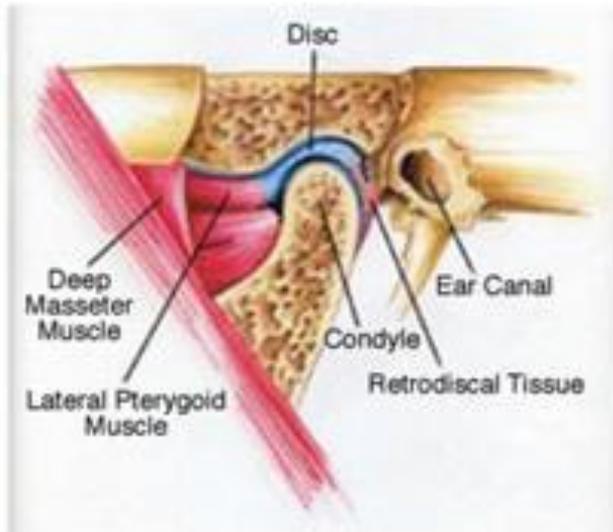
- *Displacement of the articular disc on closing , and failure to reduce or recapture the normal relationship with the condyle upon opening*



Staging of Internal Derangement of TMJ



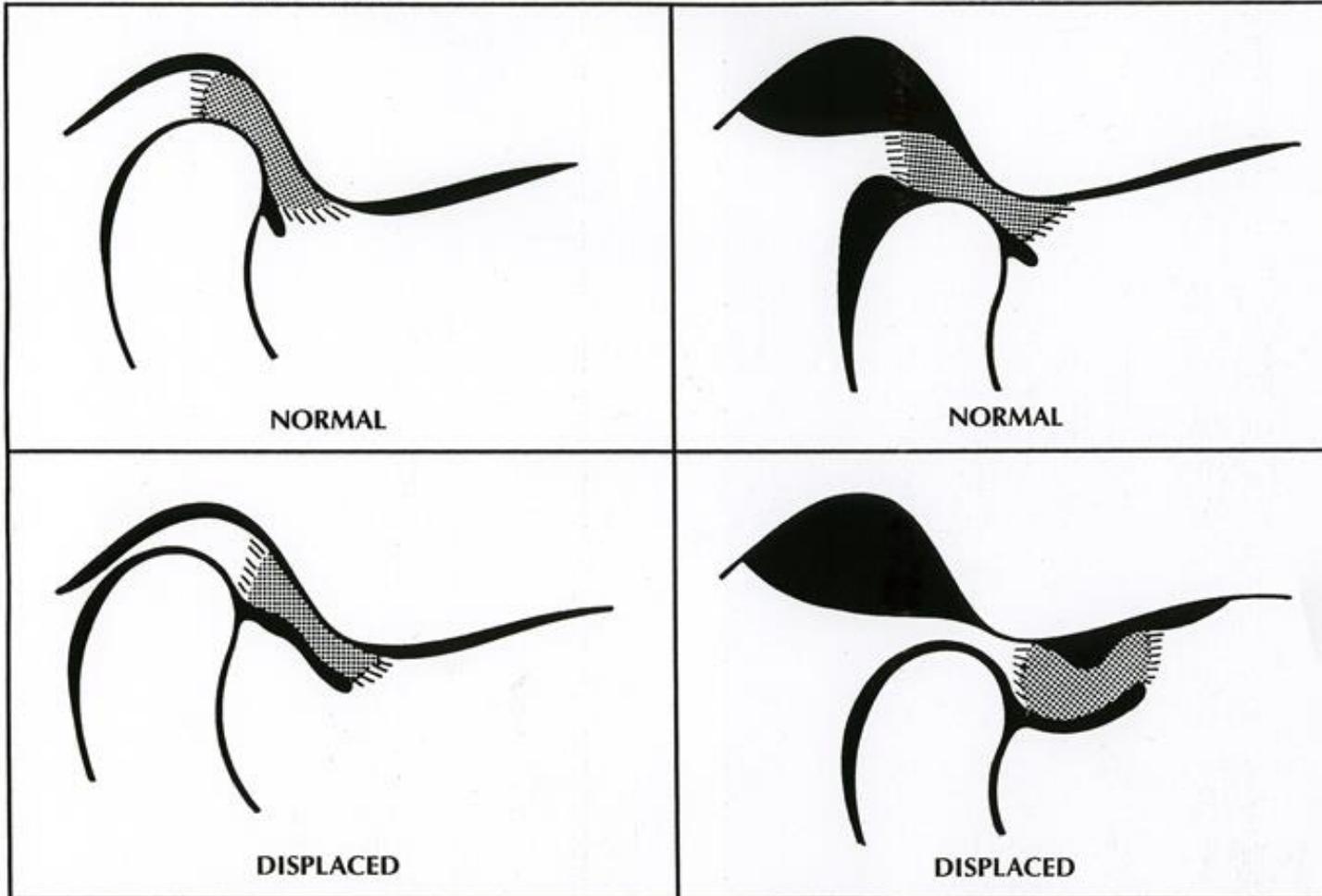
Condyles and positioning can change with age and time.



DOUBLE SPACE ARTHROGRAM INTERPRETATION

CLOSED

OPEN



NORMAL

NORMAL

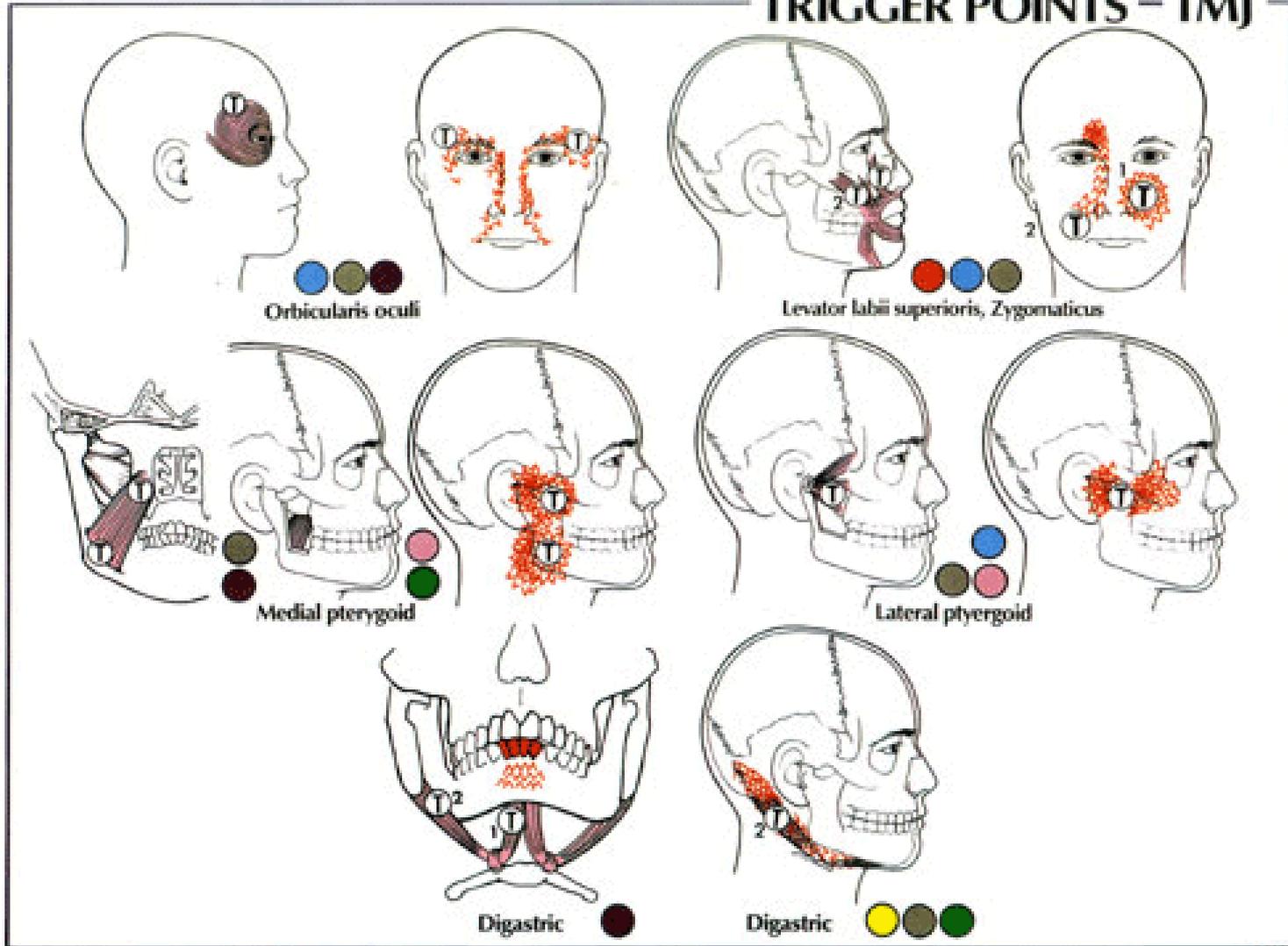
DISPLACED

DISPLACED

Classification for TMD

- Osteoarthritis
- Ankylosis
 - Fibrous ankylosis
 - Bony ankylosis
- Masticatory muscle disorders
 - Myofascial pain
 - Myositis
 - Spasm
 - Reflex splinting
 - Muscle contracture
 - Hypertrophy
 - Neoplasm

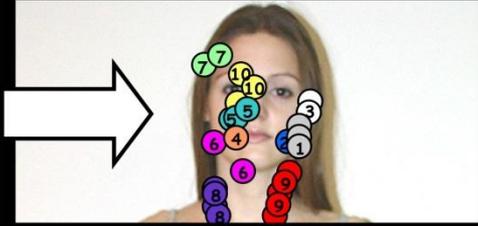
TRIGGER POINTS – TMJ



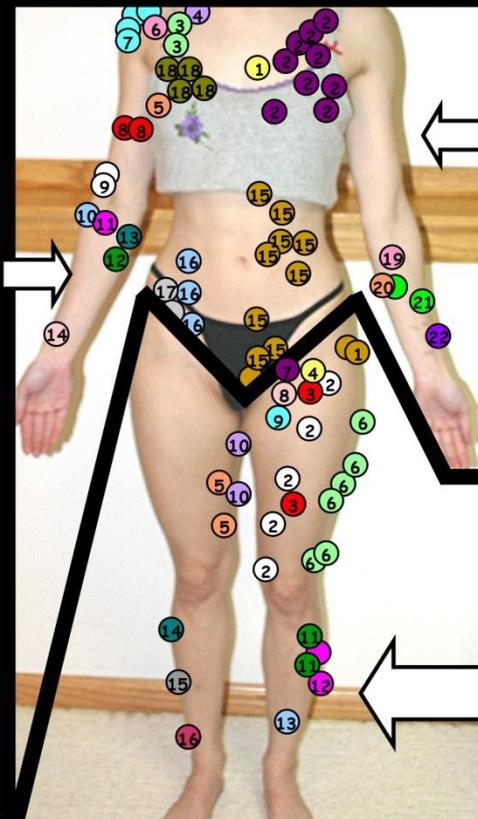
TrP Chart "Locations"

*The TrP's are the same on both sides

1. Masseter
2. Medial pterygoid
3. Lateral pterygoid
4. Buccinator
5. Zygomaticus
6. Digastric
7. Temporalis
8. Scalenes
9. Sternocleidomastoid
10. Obicularis oculi



1. Sternalis
2. Pectoralis major
3. Pectoralis minor
4. Subclavius
5. Serratus anterior
6. Coracobrachialis
7. Deltoids
8. Biceps brachii
9. Brachialis
10. Brachioradialis
11. Supinator
12. Palmaris longus
13. Pronator teres
14. Pronator quadratus
15. Abdominals
16. Psoas
17. Iliacus
18. Subscapularis

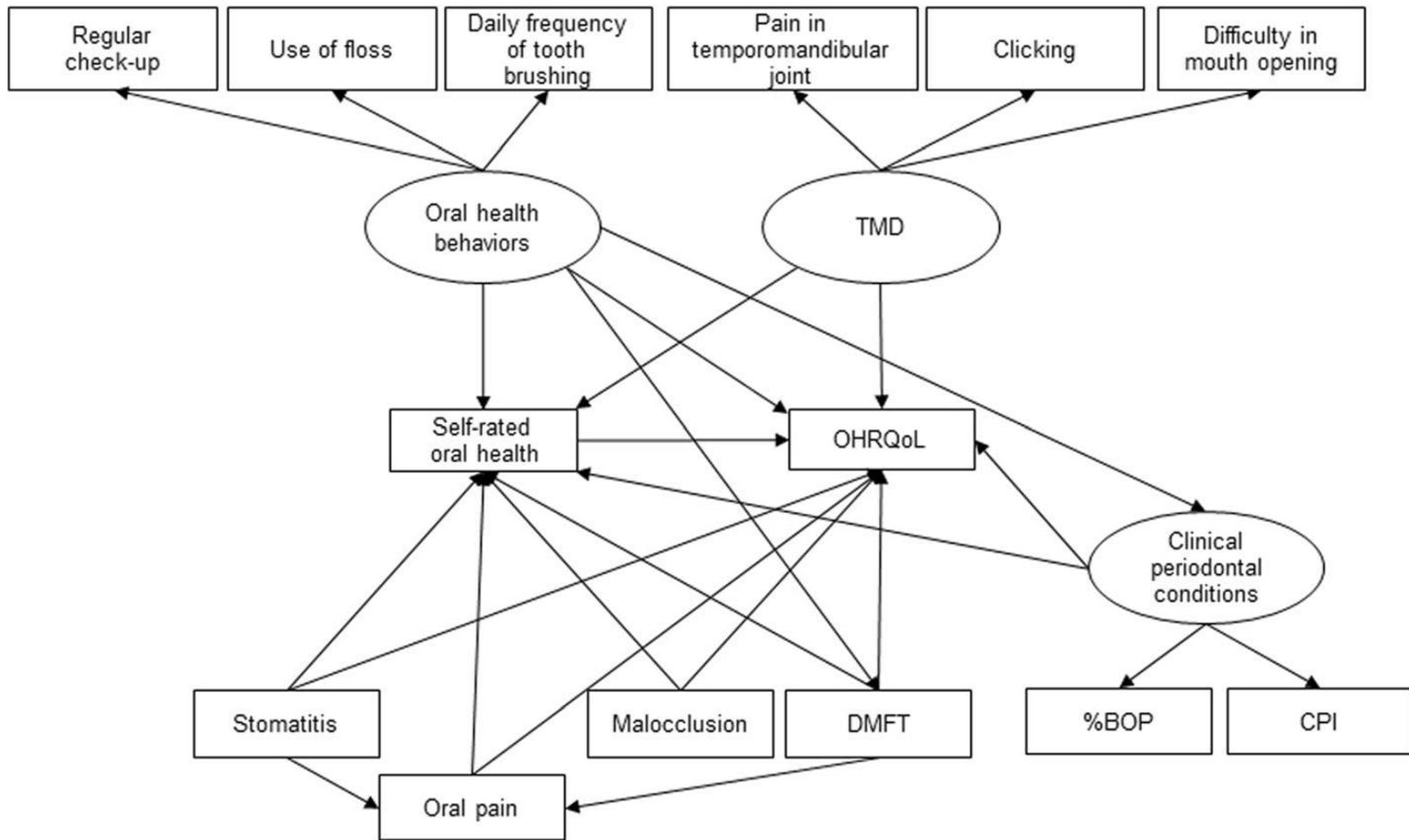


19. Flexor carpi radialis
20. Flexor carpi ulnaris
21. Flexor digitorum
22. Flexor pollicis longus

1. Tensor fasciae latae
2. Sartorius
3. Rectus femoris
4. Vastus intermedius
5. Vastus medialis
6. Vastus lateralis
7. Pectineus
8. Adductor brevis
9. Adductor longus
10. Gracilis
11. Tibialis anterior
12. Extensor digitorum
13. Extensor hallucis
14. Peroneus longus
15. Peroneus brevis

TRIGGER POINTS I





Yamane-Takeuchi M, Ekuni D, Mizutani S, Kataoka K, Taniguchi-Tabata A, Azuma T, Furuta M, Tomofuji T, Iwasaki Y, Morita M. **Associations among oral health-related quality of life, subjective symptoms, clinical status, and self-rated oral health in Japanese university students: a cross-sectional study.** BMC Oral Health. 2016 Nov 30;16(1):127.

References

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- Clark GT, Seligman DA. Guidelines for the examination and diagnosis of temporomandibular disorders. J Craniomandib Disord Facial Oral Pain 3:7, 1989
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