

“Some thoughts about Temporomandibular Disorders”

by

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Some statistics on Temporomandibular Disorders

- During the last 12 months, 1 of 6 patients came to the dental office because of orofacial pain.
- Dental pain was slightly more common musculoskeletal pain.



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Horst, OV et al: Prevalence of pain in the orofacial regions in patients visiting general dentists in the Northwest Practice-based Research collaborative in Evidence-based dentistry research network. JADA 146/10 Oct 2015, pp. 721-728.

Some statistics on Temporomandibular Disorders

- During the last 12 months, 1 of 6 patients came to the dental office because of orofacial pain.
- Dental pain was slightly more common musculoskeletal pain.



- 10-20% of the general population have TMD symptoms.
- 7% will seek treatment.

*Magnusson et al. J Craino 1991
Kantor, et al, JDR 1992
Kantor et al. JDR 1993
Schiffman et al, JDA, 1990*

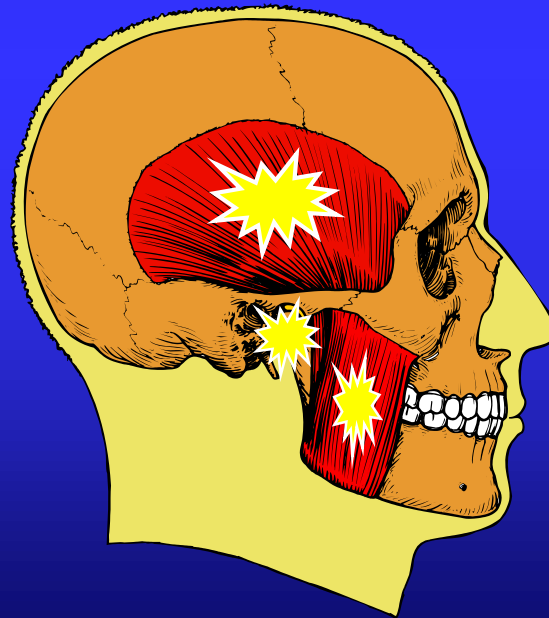
What is TMD?

“A collective term embracing a number of clinical problems that involve the masticatory musculature, the TMJ and associated structures or both.”*

*de Leeuw, Klasser G: Orofacial Pain AAOP Guidelines
Quintessence Publishers, 2018, p116.

Temporomandibular Disorders

Musculoskeletal pain disorders
of the masticatory system.



This can be a problem.

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TMJ

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Classification of Temporomandibular Disorders

I. Masticatory Muscle Disorders

1. Protective Co-Contraction
2. Local Myalgia
3. Myofascial Pain
4. Myospasm
5. Chronic Centrally Mediated Myalgia

3. Inflammatory Disorders

- a. Synovitis
- b. Capsulitis
- c. Retrodiscitis
- d. Arthritides

II. Temporomandibular Disorders

1. Derangement of the Condyle
 - a. Disc Displacement with Reduction
 - b. Disc Displacement without Reduction
2. Structural Incompatibilities
 - a. Adhesions / Adherences
 - b. Deviation in Form
 - c. Subluxation
 - d. Spontaneous Dislocation

III. Class II Mandibular Hypomobility

Successful management
requires a correct diagnosis.

IV. Growth Disorders

1. Congenital /Developmental Bone Disorders
 - a. Agenesis
 - b. Hypoplasia
 - c. Hyperplasia
 - d. Neoplasia
2. Congenital /Developmental Muscle Disorders

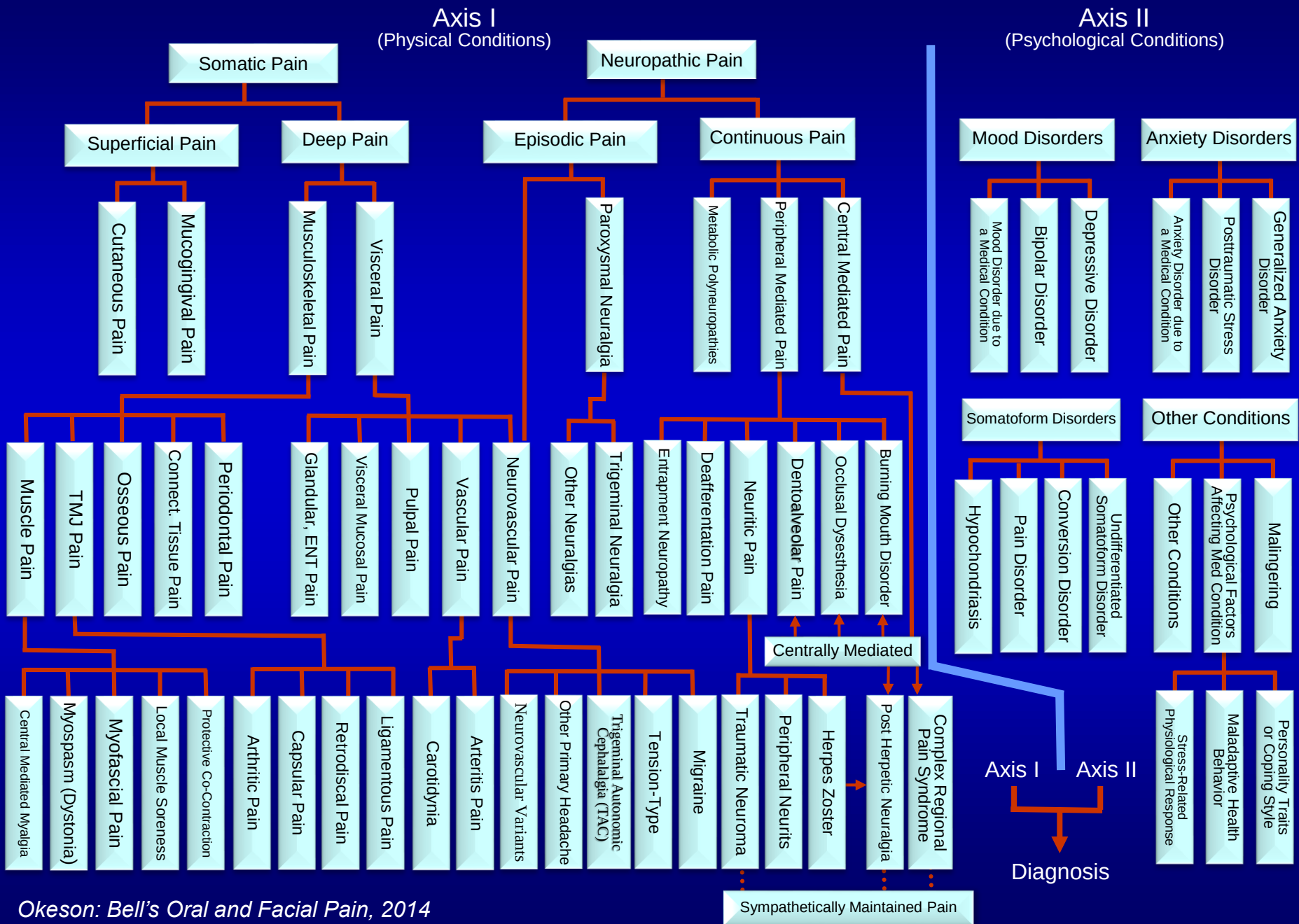
- *General types of Orofacial Pains* -

- *remember* -

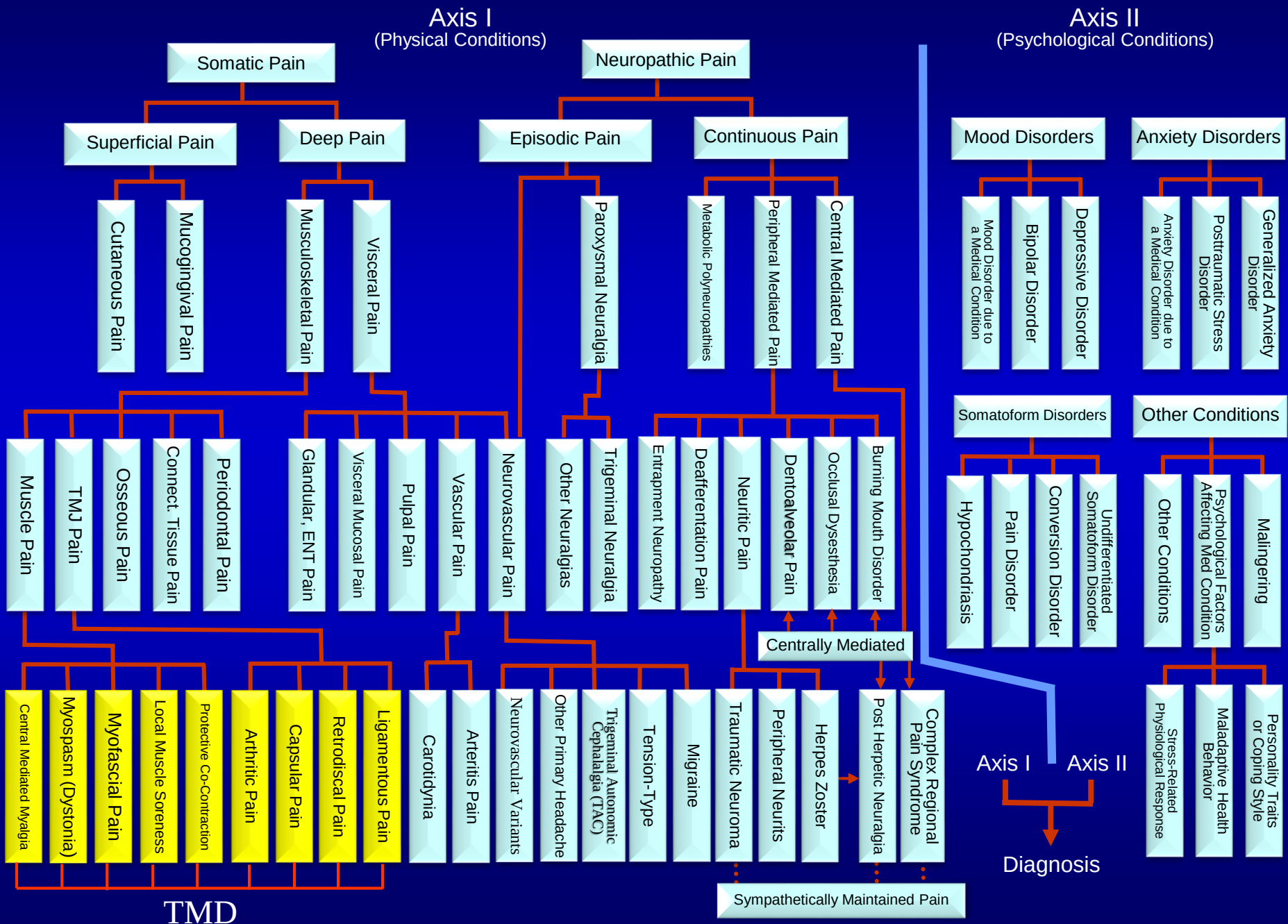
Temporomandibular
Disorder
is only one subgroup
of Orofacial Pain Disorders.



Classification of Orofacial Pains



Classification of Orofacial Pains



TMD is a problem for dentists....



Dentist



orthopedist



otolaryngologist



neurologist

...but this is not always a dental problem.

TMD is a problem for dentists....



Dentist



...but this is not always a dental problem.

In order to successfully manage TMD
we must understand the etiology.

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What causes TM Disorders?

**The asymptomatic
individual**

Etiologic Factors

**Normal functioning
masticatory system**



TMD



Evidence Based Dentistry

The asymptomatic individual

Etiologic Factors

Occlusal Factors

Normal functioning masticatory system



TMD



The asymptomatic individual

Normal functioning masticatory system



Etiologic Factors

Occlusal Factors

Trauma

Emotional Stress

Deep Pain Input

Parafunction

Adaptability of the individual

Genetic factors

Biologic factors

Hormonal factors

Psychosocial factors

Others ?

Adaptability

TMD



The asymptomatic individual

Normal functioning masticatory system



Etiologic Factors

Occlusal Factors

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Adaptability of the individual

Genetic factors
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Adaptability

TMD



How do you treat the TMD symptoms?

The asymptomatic individual

Normal functioning masticatory system



Etiologic Factors

Occlusal Factors

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Adaptability of the individual

Genetic factors

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Others ?

Adaptability

TMD



How do you treat the TMD symptoms?

We need dentists to understand TMD, and be able to differentiate TMD from other orofacial pains.

Gatekeeper



Dentist



TMD



Non TMD

Treat or Refer?

If it is TMD, the dentist should be prepared to:

- Offer education to the patient about the problem.
- Advise some simple reversible therapies.
- Perhaps, when indicated, provide an occlusal appliance.



Dentist

Most acute TMDs can be managed by
conservative, reversible therapies.

If it is TMD, the dentist should be prepared to:

- Offer education to the patient about the problem
- Advise some simple reversible therapies
- Perhaps, when indicated, provide an occlusal appliance.



Dentist

More chronic, complex TMD patients maybe be sent to the orofacial pain specialist.

How well are dentists trained in understand,
diagnosing and managing TMD?

Our TMD history in dental education

In 1991: The **First** Educational Conference to Develop the
Curriculum in Temporomandibular Disorders and Orofacial Pain

Recommendations were made to AADS...no changes were made.

American Association of Dental Schools. Curriculum guidelines
for the development of predoctoral programs in temporomandibular
disorders and orofacial pain. J Dent Educ 1992;56(9):646–9.

How well are dentists trained in understand,
diagnosing and managing TMD?

Our TMD history in dental education

In 1992: The **Second** Educational Conference to Develop the
Curriculum in Temporomandibular Disorders and Orofacial Pain

Recommendations were made to AADS...no changes were made.

Attanasio R, Mohl ND: Suggested curriculum guidelines for the
development of predoctoral programs in TMD and orofacial pain.
J. Craniomandib, 6(2):137-40,1992

How well are dentists trained in understand,
diagnosing and managing TMD?

Our TMD history in dental education

In 2000: The **Third** Educational Conference to Develop the
Curriculum in Temporomandibular Disorders and Orofacial Pain

Recommendations were made to ADEA and on to CODA...
...no changes were made.

Mohl ND, Attanasio R;. The third educational conference to develop the
curriculum in temporomandibular disorders and orofacial pain: introduction. J
Orofac Pain2002;**16**(3):173–5

Attanasio R: The study of temporomandibular disorders and orofacial pain
from the perspective of the predoctoral dental curriculum. J. Orofac Pain 16(3):
176-80, 2002

How well are dentists trained in understand,
diagnosing and managing TMD?

Our TMD history in dental education

2007: A survey of American and Canadian Dental School

“Predoctoral teaching of TMD has progressed some, however some schools do not address these topics adequately, while others teach outdated concepts.”

Klasser G, Greene CS: Predoctoral teaching of TMD : A
survey of American and Canadian Dental School.
JADA, Vol 138 (no 2) pp-231-237, 2007

How well are dentists trained in understand,
diagnosing and managing TMD?

Our TMD history in dental education

2007: A survey of American and Canadian Dental School

“..standards are needed to ensure that all predoctoral dental students learn about the diagnosis and treatment of nondental orofacial pain problems.”

Klasser G, Greene CS: Predoctoral teaching of TMD : A survey of American and Canadian Dental School.
JADA, Vol 138 (no 2) pp-231-237, 2007

TMD is a problem for dentists....



Dentist



...but this is not always a dental problem.

Conclusions

- *Suggestions to the Committee* -

- Encourage the ADEA and CODA to require TMD be included in all dental school curriculum.
- Promote interactions between dentists and physicians so as to enhance patient experiences.
- Encourage insurance companies to improve reimbursement for the management of TMD.

Thank you for the opportunity
to contribute to this podcast



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