

OCCLUSION

Principle of occlusion

Temporomandibular disorders

Occlusal disease

Osteoarthritis of TMJ

Disease of lateral pterygoid muscle (provisional name)

Disease of retrodiscal tissue (provisional name)

Centric relation

Determining of centric relation

Malocclusion

Occlusal analysis

Occlusal equilibrations

Examinations and diagnosis of occlusal equilibrations

Method of occlusal equilibrations

Case of occlusal equilibrations

Occlusal plane

Vertical dimension

Smile design

Anterior guidance

Long centric

Bruxism

Noise of TMJ

Occlusal splint

Ideal occlusion



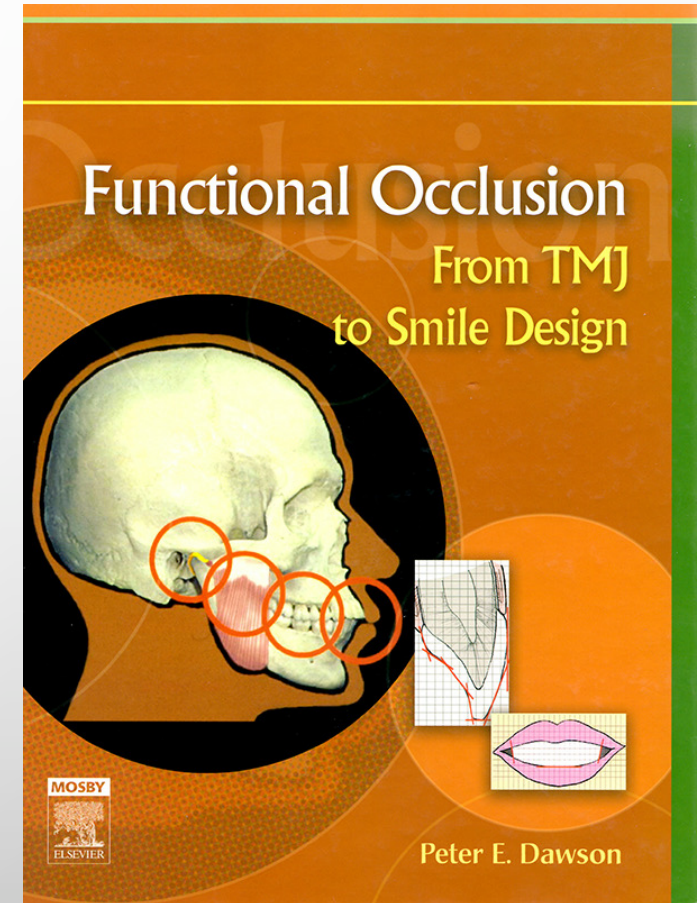
(Occlusion)

TEMPOROMANDIBULAR DISORDERS

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(Temporomandibular disorders)

1. What is temporomandibular disorders (TMD)

TMD used to be called Costen syndrome or TMJ syndrome. However, these are the same as the so-called TMD. There are more than 20 other names for TMD in English and Japanese. Thus, TMD has been controversial in its name and definition.

English

Costen syndrome

Temporomandibular joint arthrosis

Myofascial pain dysfunction syndrome

TMJ syndrome

Japanese

咀嚼系機能障害

顎機能不全症

顎機能異常

TMJ機能障害症



(Temporomandibular disorders)



2. Name and definition of TMD

In January 1991, at a seminar held by the Cranio–Mandibular Institute in California, it was suggested that the name for so-called “TMD” be unified as Temporomandibular Disorders (TMD). The panelists agreed that the definition is “Temporomandibular joint disorders (TMD) is an umbrella term covering pain and dysfunction of the muscles of mastication and the temporomandibular joint”.

As a result of this seminar, the sterile debate about TMD, with many researchers claiming various names and definitions for the condition, has been overshadowed.

Furthermore, this definition also serves to elucidate that the term “TMD” does not pertain to a specific ailment but rather functions as an inclusive term for multiple conditions that manifest diverse symptoms affecting the TMJ joint.

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3. TMD and disease name

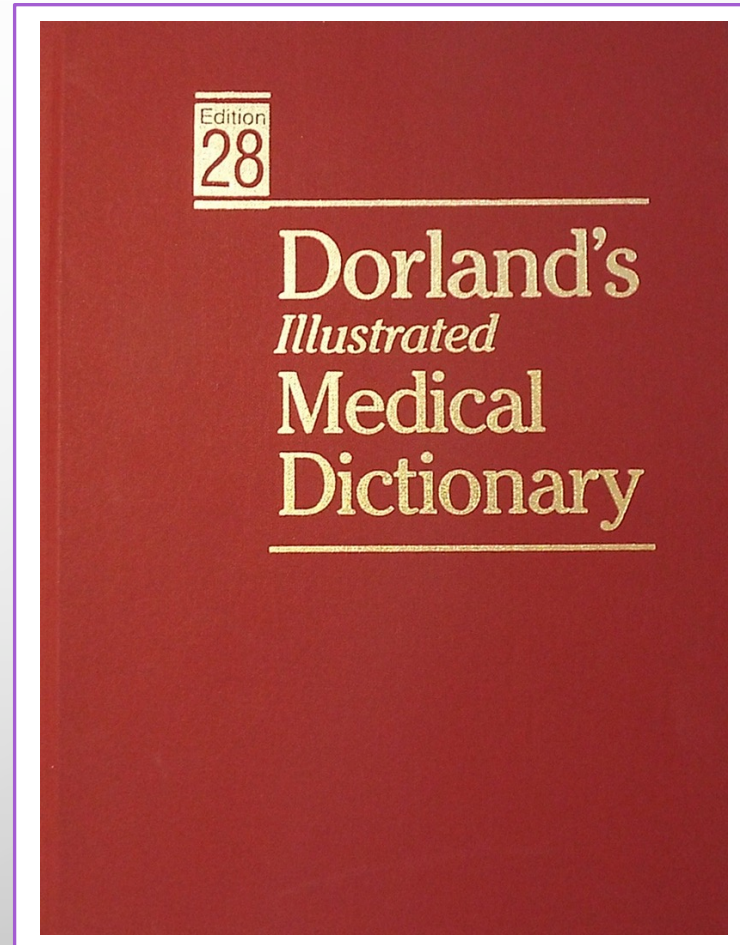
The so-called "TMD" is a collective name for several diseases, as indicated by the definition. Therefore, unlike the names of individual diseases, TMD cannot indicate the pathology or differential diagnosis, let alone the organ that is affected. It represents a condition devoid of a distinct disease identifier, thus precluding the existence of a formal "TMD diagnosis." In essence, "TMD" is employed when the root cause or pathological basis remains elusive, rendering conventional diagnosis unfeasible. To illustrate, the phrase "Given the absence of a definitive diagnosis, we will temporarily refer to it as TMD" aptly demonstrates the proper utilization of this term.

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4. What is diagnosis

According to the medical dictionary, diagnosis is “The determination of the nature of a case of disease. The art of distinguishing one disease from another.”.

In case reports, you may hear the phrase “I diagnosed TMD”. By definition, the phrase “diagnosed with TMD” is incorrect.

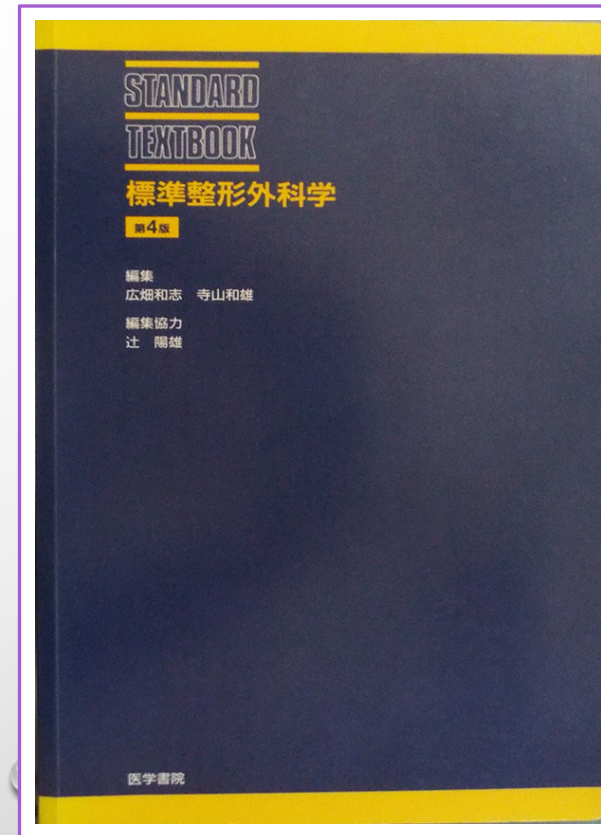


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5. Low back pain and TMD

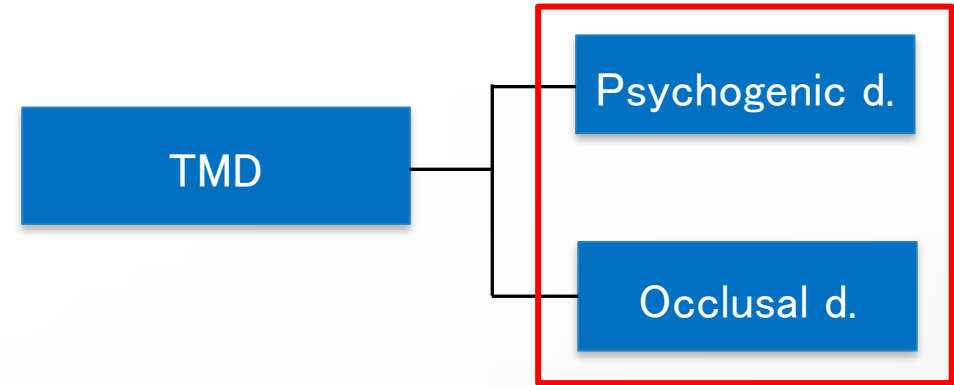
In the past, within the realm of orthopedics, any conditions inducing pain in the lumbar region were collectively labeled as “low back pain.” However, the progression of diagnostic technology has led to the attribution of specific disease designations to conditions with well-defined pathologies. In essence, conditions that are now diagnosable have been distinguished from general back pain syndromes, receiving novel nomenclature aligned with their distinct pathophysiological characteristics.

Recent studies have clarified the names of the diseases included in TMD and their pathophysiology.



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6. Diseases included in TMD

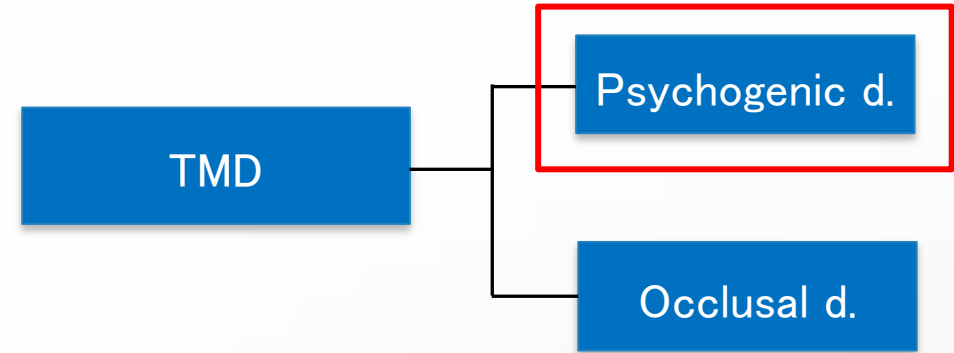


The chart diagram upper right shows the diseases included in TMD. The diseases included in TMD can be broadly divided into psychogenic diseases and occlusal diseases. Psychogenic diseases are not treated by dental institutions but by psychiatry, psychosomatic medicine, or neurology. Occlusal disease is the collective name for diseases that develop from malocclusion. Therefore, only dentists can diagnose and provide causative therapy for occlusal diseases.

In Dawson's Functional Occlusion, "Osteoarthritis of TMJ" , "Disorder of the lateral pterygoid muscle (tentative name)" and "Disorder of the retrodiskal tissue (tentative name)" appear as diseases whose pathogenesis was clarified from occlusal diseases. These will be discussed later.



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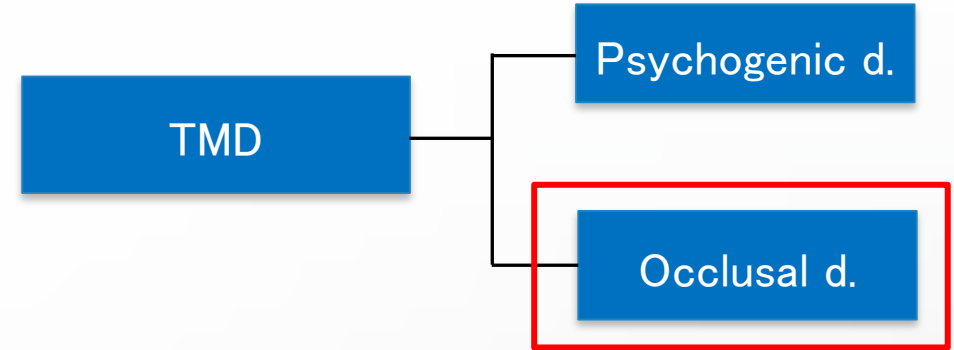


7. Osteoarthritis of TMJ

Psychogenic diseases, which are included in TMD, are diseases that cause various symptoms in the temporomandibular joint area due to psychological and emotional causes. If the cause of the disease is mental/psychological mechanism, the treatment of the disease will be handled by psychiatry, psychosomatic medicine, neurology, etc., rather than by a dental institution. Therefore, it is not appropriate for a dentist to provide counseling or otherwise provide consultation and treatment alone. In such cases, a letter of referral will be issued to a psychiatrist, psychosomatic medicine physician, or neurologist, who will be responsible for part of the treatment in cooperation with the physician in charge.



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8. Occlusal disease

Another disease included in TMD is “occlusal disease”. Occlusal disease is a group of TMJ disorders that are caused by malocclusion, and it is not a specific disease.

Guichet defines occlusal disease as “the sum total of pathological processes promoted by occlusal disharmony”. The Society of Prosthodontics defines “Occlusal disease is the general term for a variety of pathologies caused by abnormalities in oral and maxillofacial function resulting from occlusal disharmony, such as premature contact”.



Temporomandibular disorders

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If you have any questions or doubts, please leave them in the public comment section below.

The next topic will be “ Occlusal disease ”.