

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



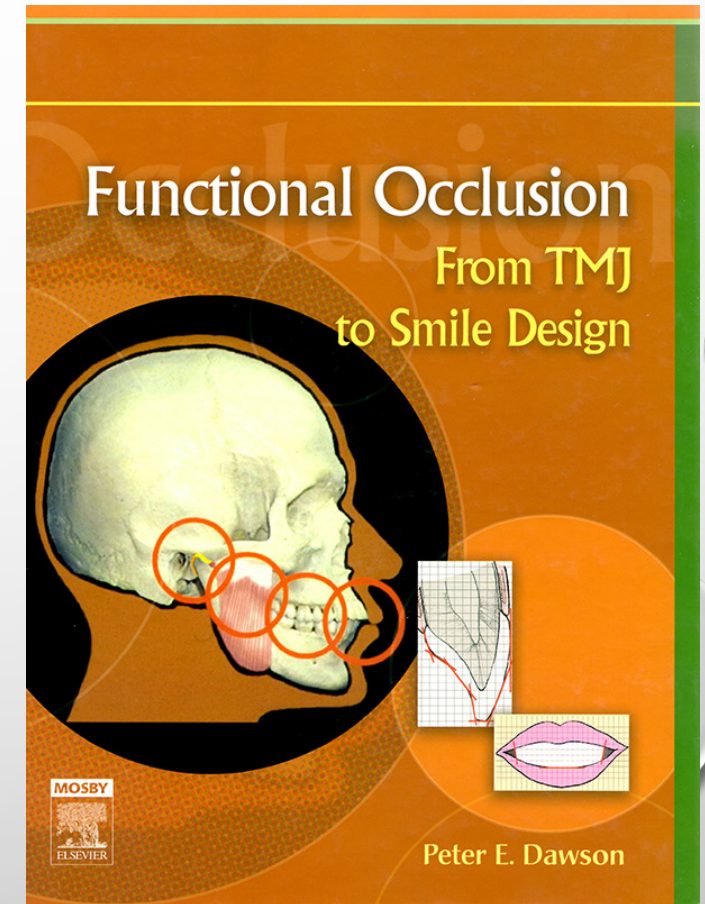
(Occlusion)

Occlusal disease

Contents

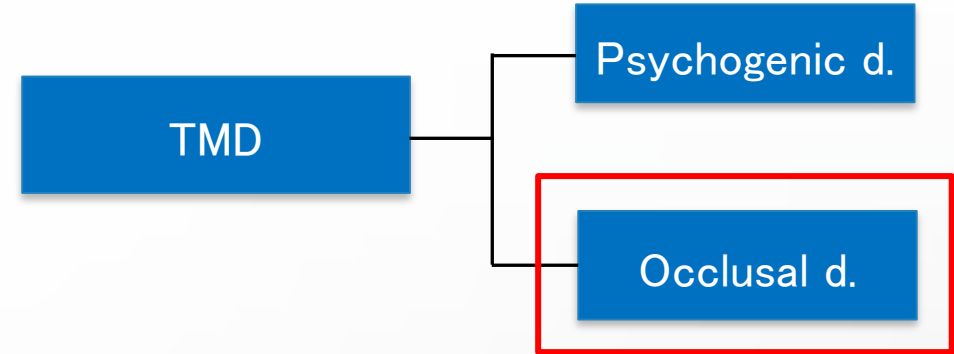
1. Definition of occlusal disease
2. Dentist responsibilities
3. What is occlusal disease
4. Examination and diagnosis of occlusal disease
5. Negative diagnosis of occlusal disease
6. Diseases included in occlusive diseases

References



(Occlusal disease)

1. Definition of occlusal disease



Guichet defines occlusal disease as "The collective outcome of pathological processes instigated by occlusal disharmony."

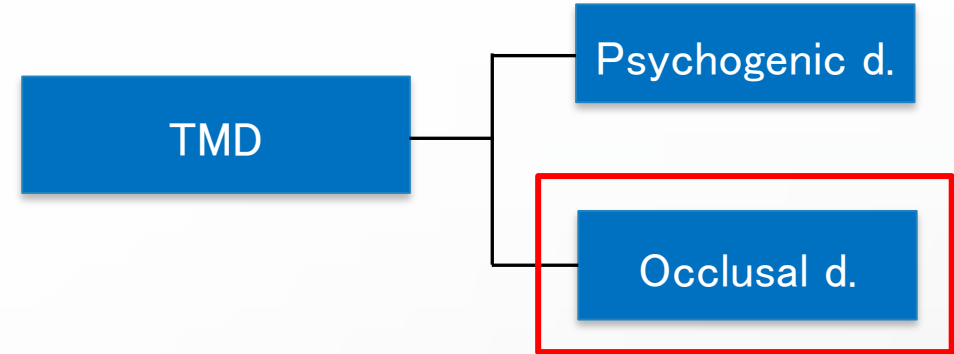
The Japanese Society of Prosthetic Dentistry provides a definition stating, "Occlusal disease is a comprehensive descriptor for assorted pathologies arising from irregularities in jaw and oral functions, arising due to premature contact and other forms of occlusal disharmony."

In light of these definitions, occlusal diseases are regarded as a category of conditions emerging from malocclusion among temporomandibular joint disorders, and they encompass a multitude of distinct diseases.



(Occlusal disease)

2. Dentist responsibilities



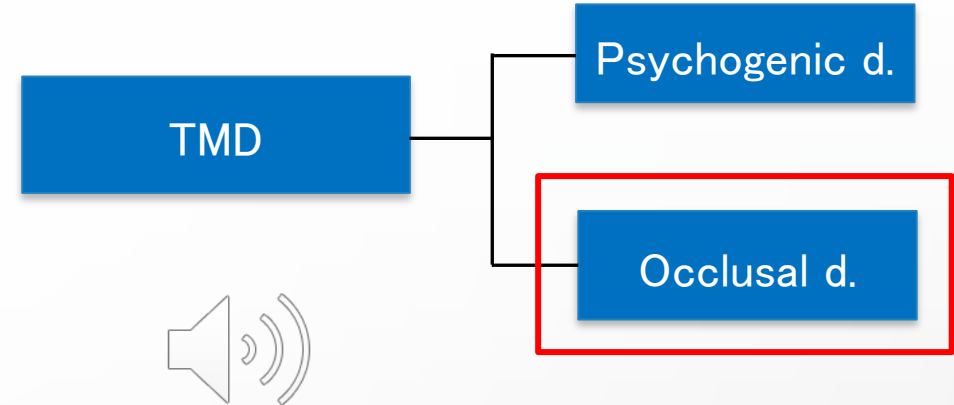
Occlusal diseases are a group of diseases resulting from functional malocclusion. Occlusal diseases include diseases of the masticatory muscles and components of the temporomandibular joint, but also include periodontal diseases caused by malocclusion, such as periodontal diseases with significant vertical resorption and fractures of teeth with severe sensitivity.

Since the cause of occlusal disease is malocclusion, it is not possible for physicians or osteopaths from other medical specialties to diagnose and treat the disease. In other words, only dentists are responsible for the diagnosis and treatment of occlusal disease. In other words, the dentist is solely responsible for the diagnosis and treatment of occlusal disease.



(Occlusal disease)

3. What is occlusal disease

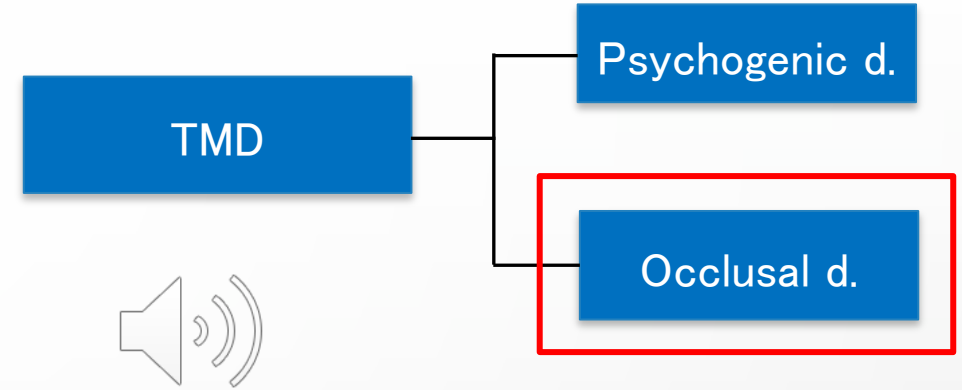


Occlusal disease is the collective name for diseases caused by functional malocclusion. Occlusal diseases include diseases of the masticatory muscles and the components that make up the temporomandibular joint.

The main symptoms of occlusal disease include pain and discomfort in and around the temporomandibular joint, difficulty opening the mouth, pain and noise when moving the jaw, headaches, and dizziness. In addition, symptoms of bruxism can range from mild discomfort to pain so intense that one would rather die. Therefore, they cannot be considered the same disease. Because of the diversity of symptoms, it is reasonable to assume that occlusive diseases include several diseases with different pathologies and organs affected.

(Occlusal disease)

4. Examination and diagnosis of occlusal disease

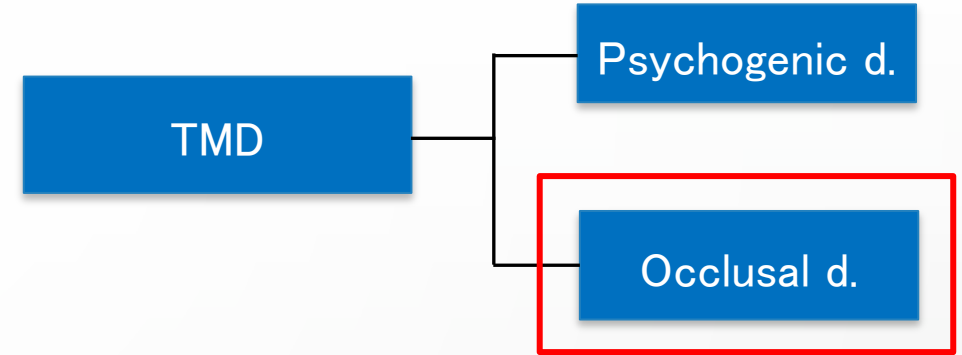


If a patient is suspected of having occlusal disease, an occlusal analysis is conducted, involving a medical interview and various examinations. The occlusal analysis aims to validate the presence and location of functional malocclusion, as well as understand its underlying pathophysiology. If functional malocclusion is indeed identified, a thorough assessment is undertaken to ascertain whether it is the causal factor behind the patient's occlusal disease.

Once it's determined that functional malocclusion is the root cause of the patient's occlusal disease, a targeted therapeutic plan is devised to rectify the functional malocclusion. Consequently, the patient's diagnosis is confirmed. The dentist then communicates the diagnosis and proposed treatment plan to the patient, initiating treatment for the occlusal disease upon receiving the patient's consent.

(Occlusal disease)

5. Negative diagnosis of occlusal disease



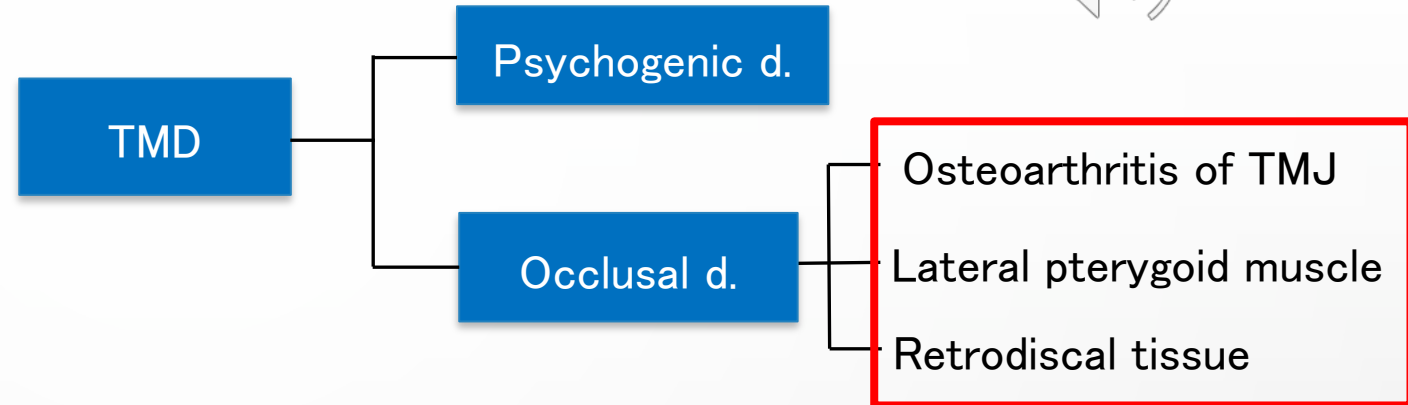
Occlusal analysis is also necessary in patients affected by other diseases that can easily be mistaken for occlusal disease. The reason for this is to demonstrate that the patient's occlusion is normal, thereby preventing the error of misdiagnosing and treating an occlusal disease and providing the basis for referring the patient to the appropriate department.





(Occlusal disease)

6. Diseases included in occlusive diseases



In Dawson's Functional Occlusion, "osteoarthritis of the temporomandibular joint," "disorder of the lateral pterygoid muscle (provisional name)," and "disorder of the posterior tissues of the disk (provisional name)" appear as pathologically clarified diseases among occlusal diseases.

"Osteoarthritis of the temporomandibular joint" is a degenerative degeneration of the articular disc and other parts of the jaw caused by repetitive and forceful movement of the mandible.

"Lateral pterygoid muscle disorder" is a fatigue condition of the lateral pterygoid muscle caused by excessive horizontal movement of the mandible. This is the cause of the majority of occlusal diseases. "Disorders of the posterior disk tissue" is also called "anterior dislocation of the articular disk" and is a condition in which the mandible moves backward due to malocclusion, causing the mandibular head to compress the posterior disk tissue that supports the articular disk posteriorly, resulting in damage to this area.

These diseases will be discussed in more detail later.

Occlusal disease

References

- 1) Dawson PE : Bad advice from flawed research. AGD Impact April : 30-31, 1995.
- 2) Okeson JP : Long-term treatment of disk-interference disorders of the TMJ with anterior repositioning occlusal splints. J Prosthet Dent 1988 ; 60 : 611-616.
- 3) Peter E. Dawson : Functional Occlusion From TMJ to Smile Design, MOSBY, St. Louis, 2007.
- 4) Niles F. Guichet : Occlusion, Anaheim, Calif. , 1977.
- 5) 保母須弥也 : 咬合学事典、書林、東京、1979.
- 6) 外川正 : 入門顎関節症治療のための咬合分析と診断, 金原出版, 東京, 2009.
- 7) 外川正, 武田泰典, 加藤貞文, 阿部 隆, 千葉健一, 水間謙三, 岡田 弘 : いわゆる「顎関節症」から分離して扱うべき疾患—とくに隣接医科との整合性を考慮して—, 日本歯科評論, 624:171~180, 1994.
- 8) 最新医学大辞典, 医歯薬出版, 東京, 1987.
- 9) 福井次矢 : 内科診断学第2版、医学書院、東京、2008.



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

The next topic will be “ Osteoarthritis of TMJ ”.