

# 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

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Case of occlusal equilibrations

Occlusal plane

Vertical dimension

Smile design

Anterior guidance

Long centric

Bruxism

Noise of TMJ

Occlusal splint

Ideal occlusion



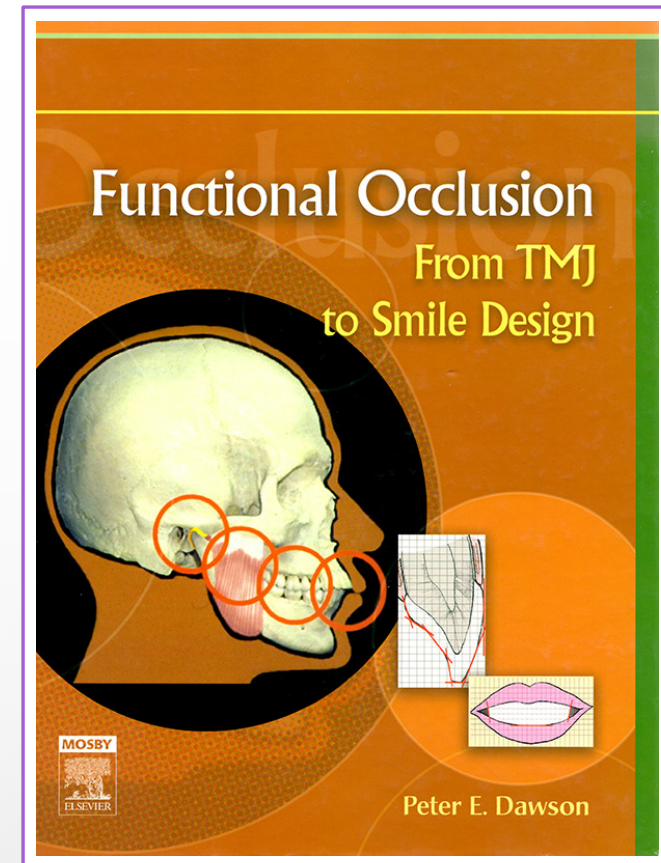
(OCCLUSION)

# Disease of lateral pterygoid muscle (provisional name)

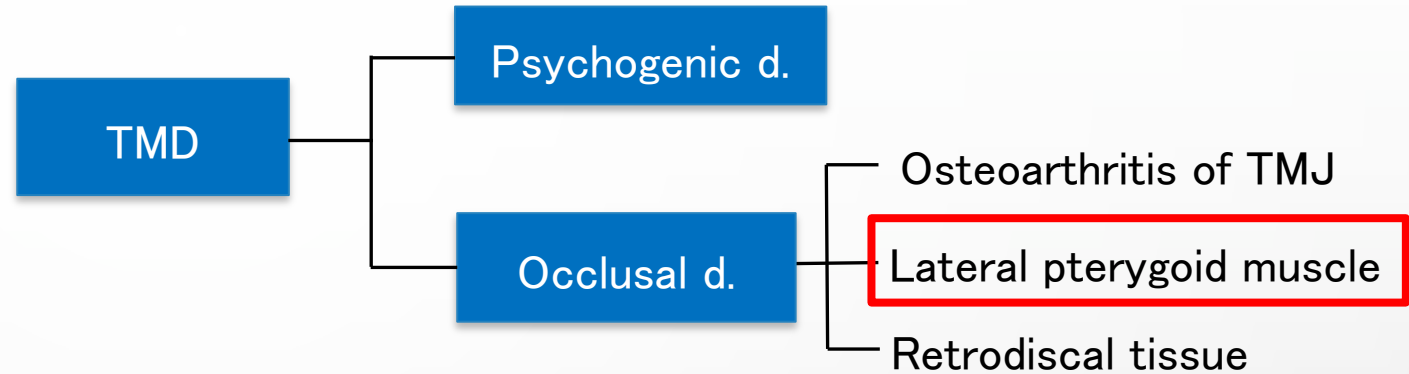
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# Disease of lateral pterygoid muscle (provisional name)



## 1. What is a disease of the lateral pterygoid muscle

As shown in the upper right chart diagram, disease of the lateral pterygoid muscle is one of the occlusal diseases, the pathogenesis and causes of which have been identified.

The degree of symptom progression ranges from mild fatigue to severe inflammation of the lateral pterygoid muscle, and it is a frequent disease that accounts for the majority of occlusal diseases.



# Disease of lateral pterygoid muscle (provisional name)

## 2. Definition, frequency, and pathogenesis

### Definition:

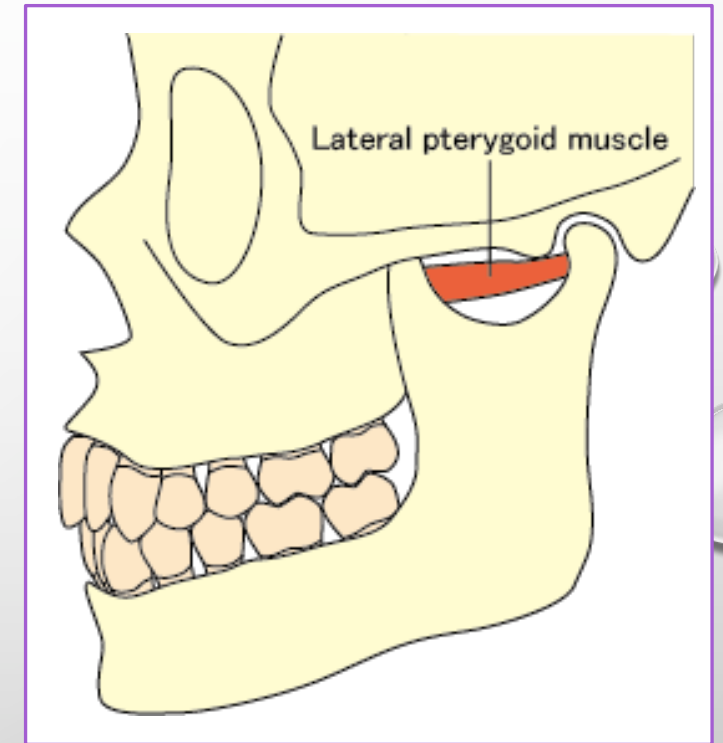
This condition involves fatigue or inflammation (tendonitis) of the lateral pterygoid muscle.

### Frequency:

This condition is quite common, accounting for the majority (>90%) of occlusal diseases.

### Etiology:

The primary cause of this condition is habitual over contraction of the lateral pterygoid muscle due to clenching or tooth grinding, leading to the buildup of fatigue-inducing substances in the muscle.



# Disease of lateral pterygoid muscle (provisional name)

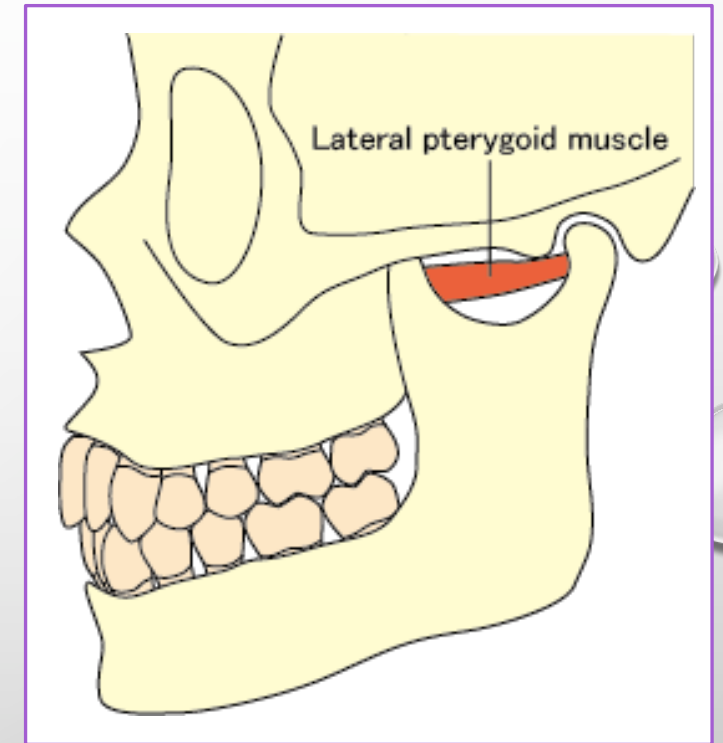
## 3. Symptoms and medical examination

### Symptoms:

Pain in the front of the ear, difficulty opening the mouth, headaches, and stiff shoulders may occur. If the mouth opening is less than 25 to 30 mm, no pain is experienced. However, if the opening is greater than that range, pain is felt in the front of the ear. This pain might be experienced over a wide area. In certain cases, the pain might even extend to the temporal area or neck.

### Examination:

The patient is instructed to slightly open their mouth. When the mouth opens 25 to 30 mm, the lateral pterygoid muscle contracts, causing pain. On the other hand, the dentist's hand is placed on the patient's chin, and they are asked to press their hand with their lower jaw. If the lateral pterygoid muscle is affected, the patient will experience strong pain on the affected side.



# Disease of lateral pterygoid muscle (provisional name)

## 4. Laboratory findings, diagnosis and differential diagnosis

### Examination Findings:

As shown in the right photo, the occlusal analysis is performed using a study cast mounted on a semi-adjustable articulator. If the malocclusion is found, it is necessary to analyze the location and condition of the malocclusion, as well as the occlusal state after the malocclusion has been resolved.

### Diagnosis and Differential Diagnosis:

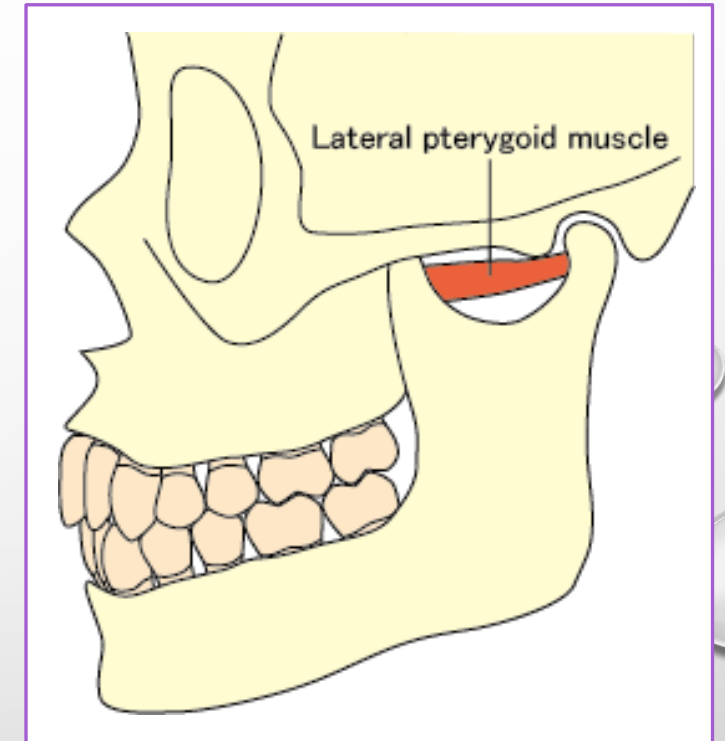
The diagnosis is confirmed when symptoms are attributed to a disorder of the lateral pterygoid muscle and the cause is identified. If the symptoms include headache, differential diagnosis with other headache-producing diseases is necessary. In such cases, collaboration with other medical departments is necessary. The departments to collaborate with include neurology, psychosomatic medicine, otorhinolaryngology, and orthopedics.



# Disease of lateral pterygoid muscle (provisional name)

## 5. Cause

When functional malocclusion exists, teeth grinding may be induced in attempt to eliminate the malocclusion. Grinding is caused by intermittent strong contraction of the lateral pterygoid muscle on one side. As a result, the lateral pterygoid muscle on one side becomes fatigued and impaired.



# Disease of lateral pterygoid muscle (provisional name)

## 6. Basic treatment policies

The diagnosis of this disease can be confirmed by occlusal analysis, and most cases can be cured completely by causative therapy based on the diagnosis. Causal therapy includes occlusal adjustment, removal of the prosthesis causing malocclusion, and oral rehabilitation.

Symptomatic therapies such as analgesic medications are effective as adjuncts to the causative therapy.





# Disease of lateral pterygoid muscle (provisional name)

## References

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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 "disease of retrodiscal tissue (provisional name)".