

OCCLUSION

Occlusal theory
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 for occlusal equilibration

Method of occlusal equilibration
Case of occlusal equilibration
Occlusal plane
Vertical dimension
Smile design
Anterior guidance
Long centric
Bruxism
Noise of TMJ
Occlusal splint
Ideal occlusion



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Bruxism



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References

head ache	mandibular trismus
	
stiff shoulder	Pain in the front of the ear
	clicking or crepitus
	dysmasesis

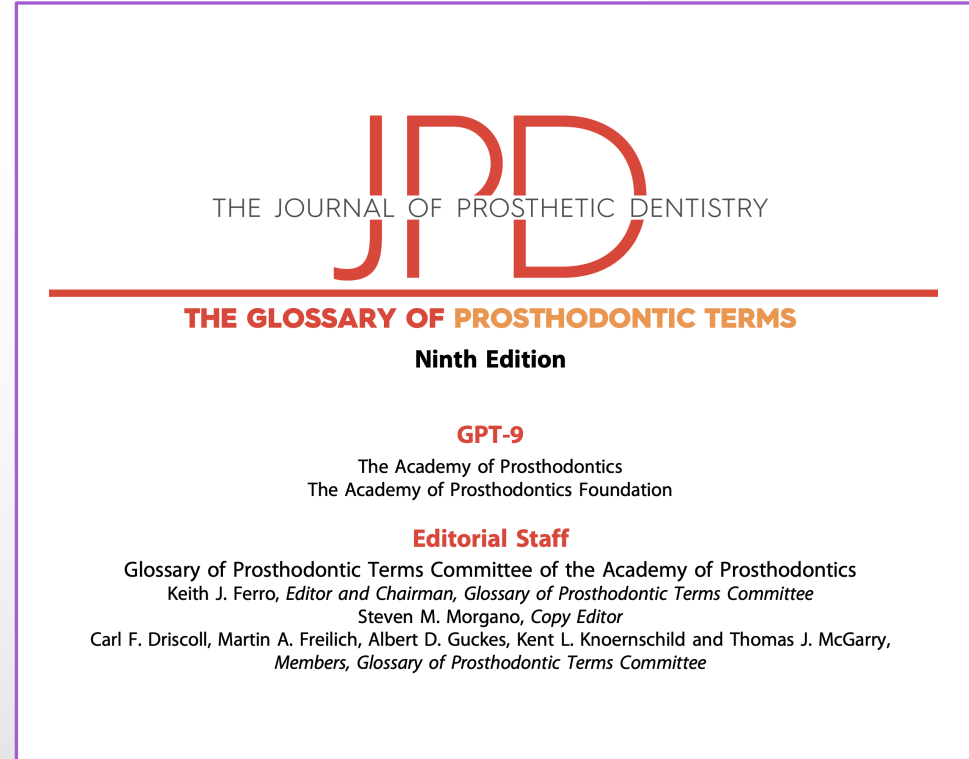
(BRUXISM)



1. What is bruxism?

According to the The Glossary of Prosthodontic Terms. Bruxism: An oral habit consisting of involuntary rhythmic or spasmodic nonfunctional gnashing, grinding, or clenching of teeth, in other than chewing movements of the mandible, which may lead to occlusal trauma.

Bruxism causes traumatic occlusion, which leads to tooth wear, fracture of the occlusal cups, exostosis of the alveolar bone, and muscle ache. Severe bruxism can also wear away the mandibular condyle and articular disc and deform the articular tuberosity of the TMJ.



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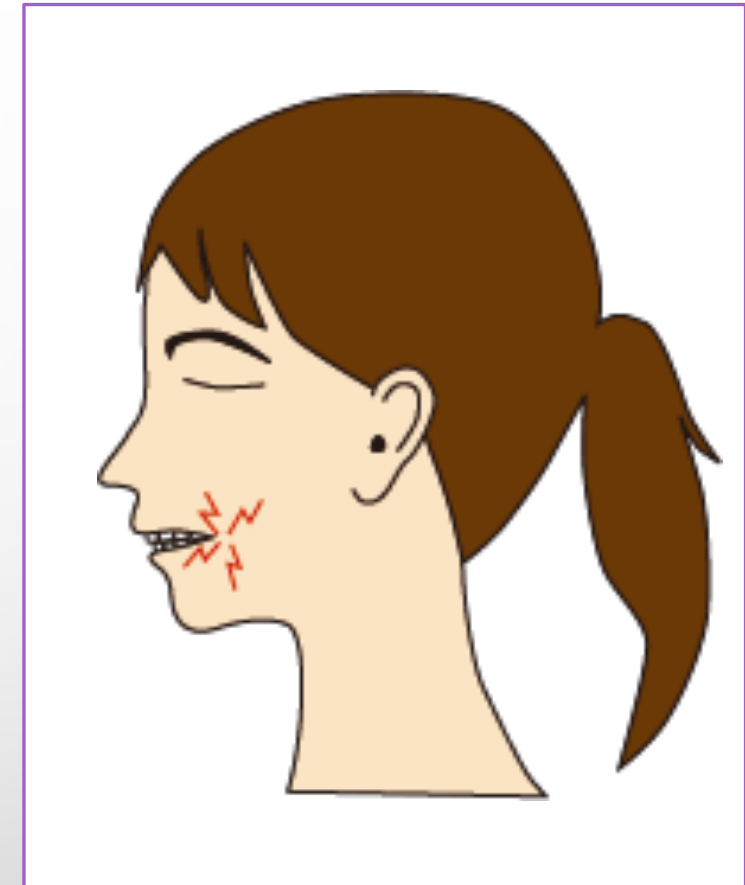
2. Causes of bruxism



In the past, many researchers claimed that there is a link between bruxism and psychological stress. However, Dawson found it “problematic to attribute much of the cause of bruxism to psychological stress.”

Currently, most bruxism is attributed to malocclusion. In a 1961 study, Ramfjord” found that “some kind of occlusal interference will be found in every patient with brux-ism.” EMG studies done by Ramfjord and Ash showed that “a marked reduction in muscle tonus and harmonious integration of muscle action follows the elimination of occlusal disharmony”.

Dawson showed that “bruxism is a defensive response to occlusal interference. In other words, bruxism is the act of rubbing the teeth together to eliminate occlusal interference. However, since the area of tooth rubbing is often different from the area of occlusal interference, bruxism can continue to worsen and cause various disorders of the temporomandibular joint and masticatory muscles.



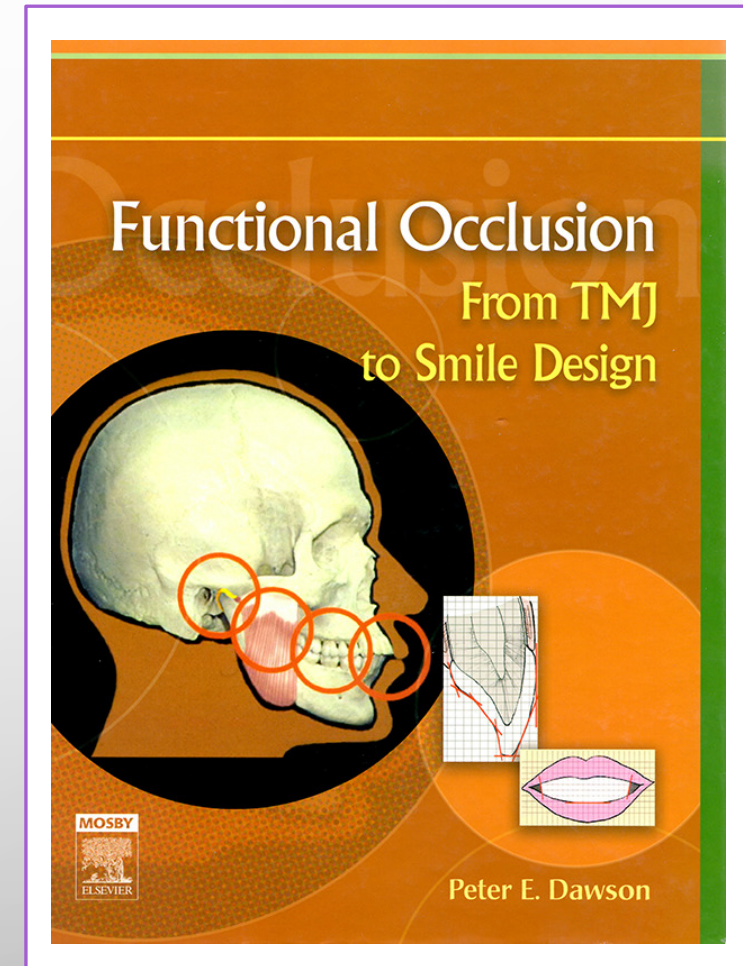
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3. Interference between bruxism and occlusion

Dawson explains bruxism over 10 pages in Chapter 28 of Functional Occlusion.

At the beginning of the chapter, Dawson states, " Regardless of the cause, the most effective treatment for the effects of bruxism is perfection of the occlusion". Dawson reported that careful removal of all occlusal interferences could completely eliminate the clinical symptoms of bruxism in most patients. This observation demonstrates the profound relationship between bruxism and occlusal interference.

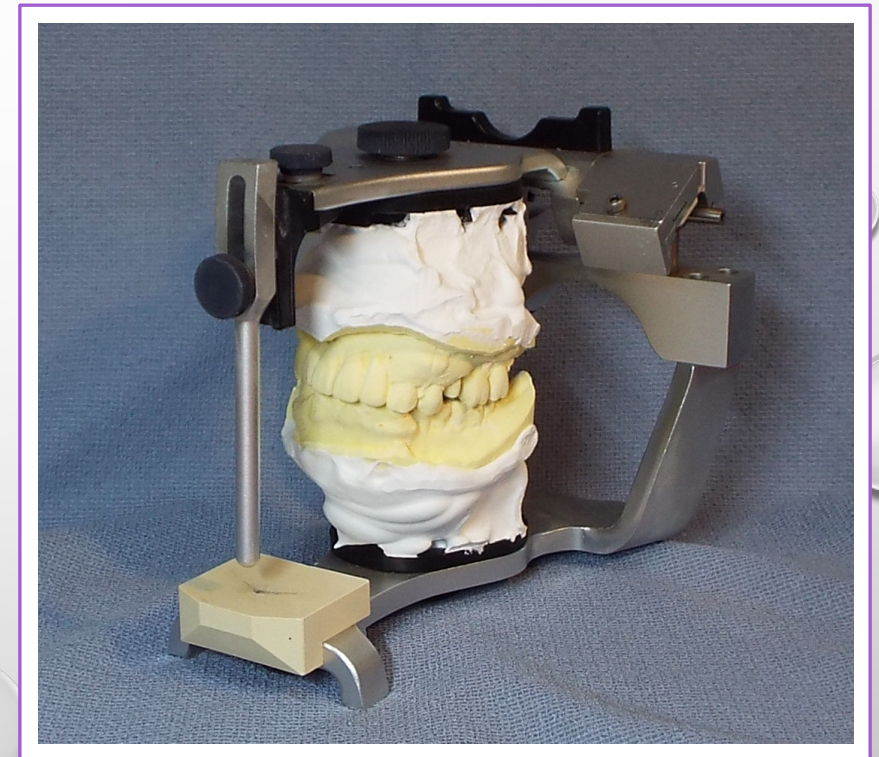


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4. Occlusal analysis for bruxism

Occlusal analysis for bruxism is performed on a study cast mounted on a semi-adjustable articulator in the centric relation. The reason is that patients with bruxism have a habit of performing occlusal movements to avoid the eccentric position that causes occlusal interference, and it is difficult to guide the patient to the jaw position that causes occlusal interference.



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5. Goals of occlusal treatment for bruxism (a) Stability of the intercuspals position

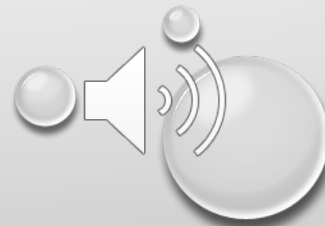
As shown in the upper right photo, only three teeth are in contact in the cuspid-fitted position. By adjusting the occlusion of these three teeth, as shown in the lower right photo, all teeth except for the lower left 4th tooth can now be in stable contact. In other words, in the occlusal-occipital mating position, the load can be distributed by providing as many stable occlusal contact points as possible.



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5. Goals of occlusal treatment for bruxism (b) Removal of occlusal interference in the centric relation

Even a very small amount of occlusal interference in the centric relation induces nonfunctional activity of the lateral pterygoid muscles and results in uncoordinated hypertonia of the closing muscles. Therefore, occlusal interference in the centric relation must be eliminated with a high degree of accuracy.



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5. Goals of occlusal treatment for bruxism (c) Removal of occlusal interference in the eccentric position

The elimination of occlusal interference in the eccentric position is aimed at achieving smooth anterior guidance and rapid release of all posterior teeth.

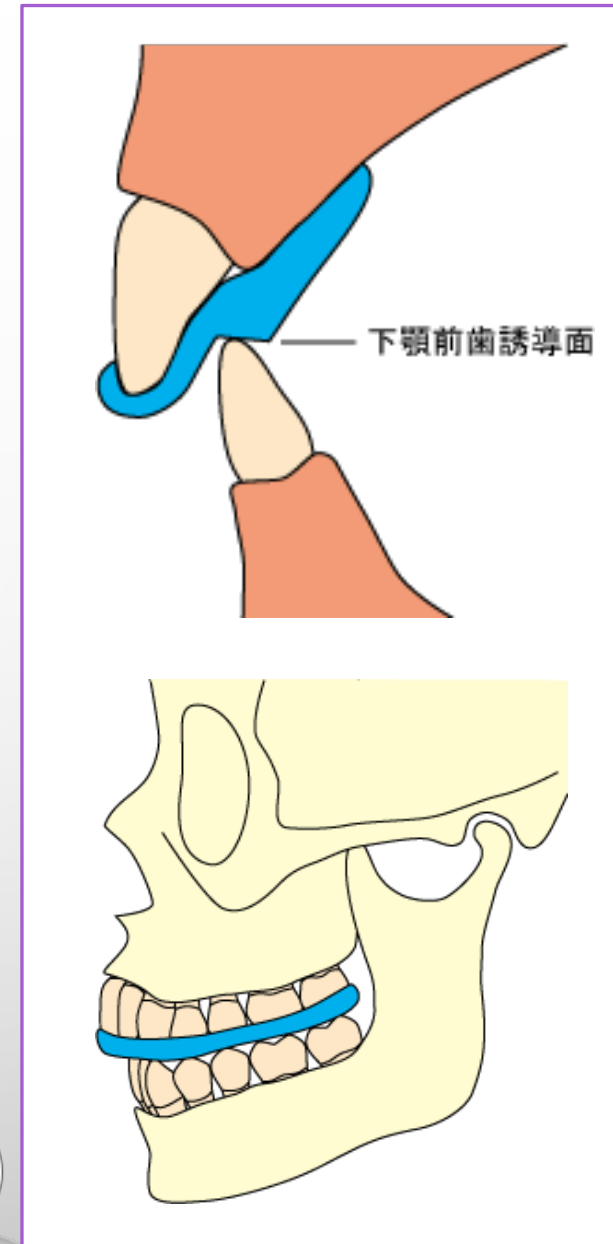


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6. Treatment of bruxism with splint

The occlusal splint are sometimes used in the treatment of bruxism. There are different types of occlusal splints, depending on their purpose. For temporary improvement of symptoms, a splint worn on the anterior teeth is selected, as shown in the upper right illustration. For the healing of TMJ component disorders, a splint covering the entire dentition is selected, as shown in the lower right illustration.

If the symptoms of bruxism improve and the splint is removed, the symptoms of bruxism will recur because the occlusal interference has not been eliminated. Therefore, after the splint is removed, occlusal analysis and diagnosis must be performed to eliminate the occlusal interference.



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Bruxism

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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 ” Noise of TMJ ”.