

Bruxism

Bruxism is excessive clenching or grinding of the teeth that is not a part of normal chewing movements. It can lead to excessive wear on the teeth and may cause permanent damage to the teeth and the jaw joints.

Excessive clenching and grinding of the jaws are not healthy actions. In some adults and children, clenching and grinding may occur during the day or at night. During sleep, they have no conscious control over this excessive clenching and grinding.

Muscle groups

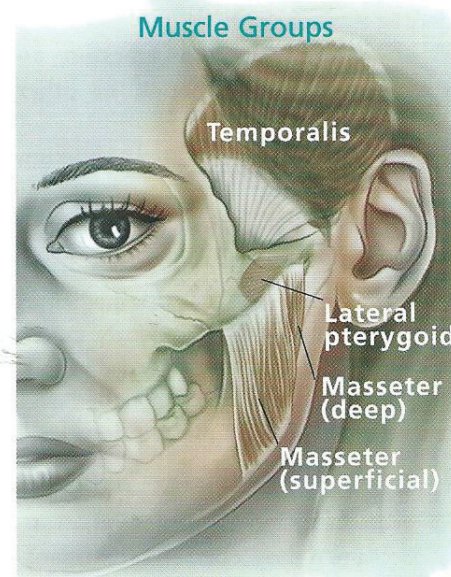
Three of the main muscle groups that are associated with bruxism are shown in the illustration. The temporalis and masseter muscles bring the jaws together. The lateral pterygoid muscles move the jaw from side to side.

Causes of bruxism

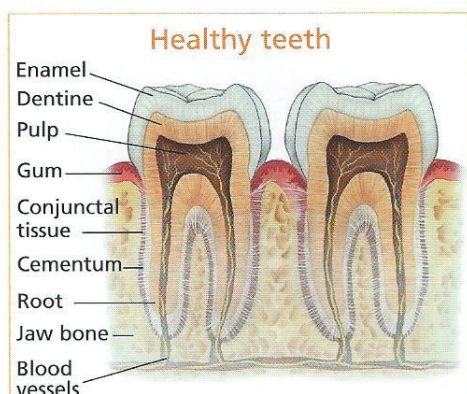
The causes of bruxism are still being studied.

A combination of physical and psychological factors are believed to contribute to bruxism:

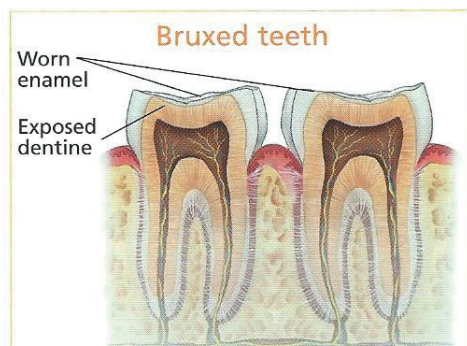
- physical stress such as illness, nutritional deficiencies or dehydration, particularly in children
- psychological stress, anxiety and tension in adults and children
- studies have shown that night bruxism is a sleep disorder
- other abnormal anatomy of the teeth or jaws (including "high spots" on fillings) that can cause an improper occlusion (also called "bite") and lead to bruxism behaviour.



The temporalis, masseter and lateral pterygoid muscles of the jaw contribute to clenching and grinding actions.



The hard enamel layer protects the tooth. If enamel is badly damaged due to bruxism and the dentine is exposed, the tooth is at risk. If the pulp (which contains nerves and blood vessels) is damaged and becomes infected, the tooth will die. Root canal treatment will be needed to save the tooth.



Severely bruxed teeth are often sensitive to heat and cold, painful and discoloured once the dentine is exposed.

The signs and symptoms of bruxism

The signs and symptoms of bruxism vary according to the nature, frequency, duration and strength of excessive clenching and grinding. Signs and symptoms may include:

- pain in the teeth and sensitivity to heat and cold
- chronic facial pain with tension headaches, caused by intense muscle contraction
- the noise, noticed by partners, friends or relatives, that occurs as the teeth are ground together
- flattened and worn tooth surfaces, which may reveal the underlying yellow dentine layer
- microfractures of the tooth enamel
- broken or chipped teeth
- loose teeth with possible damage to the tooth sockets
- stiffness and pain in the jaw joint muscles; this can cause restricted opening and difficult chewing. Sometimes, the temporomandibular joint (TMJ) or jaw joint may suffer damage that is slow to heal. Refer to the ADA patient education pamphlet *Common Disorders of the Jaw Joint*, available from your dentist

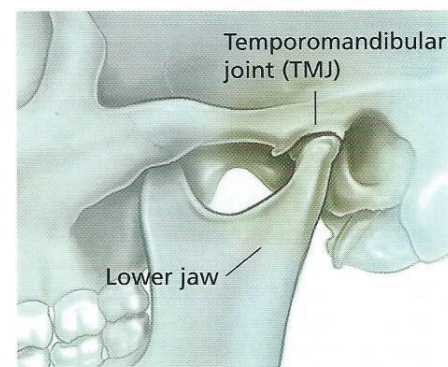
- earache or pain in the jaw joint.

The variation in signs and symptoms reflects the strength of clenching and grinding involved in bruxism.

People who clench their teeth tightly may experience tension-related headaches, but may have little or no damage to the teeth or jaw joint.

Those who experience severe grinding may have damaged teeth and jaw joint problems.

People with mild tooth grinding may have worn tooth surfaces but no jaw joint pain or tooth sensitivity. These individuals may not realise that they suffer from bruxism.



Bruxism may affect the temporomandibular joint, causing significant discomfort or pain.