**TEETH GRINDING AND CLENCHING**

**What is Bruxism and Teeth Clenching?**

Bruxism or grinding is when you move your jaw over the other with your teeth closed together, while clenching is simply holding the teeth together and tightening the jaw muscles. These habits may occur while the patient is asleep or awake. In most cases patients don’t even know that they grind their teeth and find out from their partners who sleep next to them as they can hear them at night. They will notice that the grinding is especially noisier on days the patient has had a stressful day.

If not treated, it leads to damage of the teeth, the supporting tooth structures, the oral soft tissues and the muscles constituting the masticatory system.

Bruxism activity is of major concern for the dentists as it leads to tooth wear and damage, restoration fractures, temporal headache and other temporomandibular disorders. In most of the cases, bruxism does not cause serious complications, but in severe conditions it can lead to damage of teeth and restorations, tension type headaches, facial or jaw pain and temporomandibular disorders. Hence a proper diagnosis and management of bruxism is of major concern, in order to prevent complications

**Symptoms and Causes & when it happens most?**

Symptoms

Signs and symptoms of bruxism may include:

* Teeth grinding or clenching, which is loud enough to be noticed by people in the same room.
* Teeth appear flattened, fractured or chipped, exposing the pale yellow layer of dentine underneath.
* Increased tooth sensitivity to hot and cold stimuli.
* Tired or tense jaw muscle or a locked jaw that won't open or close completely.
* Soreness in the jaw, neck or face.
* Earache.
* Dull headache starting at the temples.
* Cheek biting.
* Sleep disruption.

Clinical studies suggest that stress is the main reason for patients to seek medical advice

The cause of bruxism is not always clear.  Some of the causes of bruxism are:

* Sleep Disorders,
* Lifestyle Factors,
* Stress
* Anxiety & other Psychological Components.

**What is TMJD?**

Temporomandibular joint dysfuntion is a disorder affecting the jaw joints and the muscles attached to the jaw. The most common signs and symptoms include:

* Pain and tenderness upon palpation of the jaw muscles and joints and while clenching, yawning and chewing.
* Stiffness and difficulty in movement of the lower jaw.
* Clicking sound upon opening and closing the jaw.

Other less common symptoms are:

* Headaches
* Hearing loss
* Dizziness
* Pain elsewhere in the mouth

**Treatments for both**

**Night splints**

Dental splints, also known as occlusal splints, include bite plates and mouth guards. These are custom-made by a dentist. They are made of clear plastic and fit between and over the upper and lower teeth to prevent the patient from clenching and grinding. The treatment helps to ease tense jaw muscles and stabilizes the jaw. This process takes around 3 months.

**Muscle relaxant injections for TMJD**

Muscle relaxant injections in the masseter muscle are an effective way to relax the jaw muscles and relieve headaches caused by TMJD.

**Other sleep disorders**

**OSA symptoms:**

Obstructive Sleep Apnea is a chronic sleep related breathing disorder characterized by narrowing of the pharyngeal airway during sleep. This can cause long term health problems such as Cardiovascular disease, depression and Metabolic disorders among others.

**Causes:**

The most common cause of OSA in adults is excess weight and obesity. During sleep when the tongue and throat muscles are relaxed they can cause the upper airways to become blocked.

In children it can be caused by tonsillitis, childhood obesity or associated with Down’s syndrome and Pierre-Robin syndrome.

Common symptoms include excessive daytime sleepiness, fatigue, non-refreshing sleep, nocturia, morning headache, irritability, and memory loss

1. **Diagnosis from sleep specialist**

A sleep specialist will conduct certain tests detect obstructive sleep apnea, such as Polysomnography. During these tests the patient’s heart, lung and brain activity, breathing patterns, arm and leg movements, and blood oxygen levels are monitored while they sleep.

1. **Treatment with a dentist**

An oral appliance is given which fits like an orthodontic retainer. It supports the jaw in a forward position maintaining an open upper air way and helps with snoring as well as OSA.