

## **Temporo-mandibular Dysfunction (TMD)**

By Dr. Jack Fletcher, Family Dentist

Long term inflammation in the temporo-mandibular joint (TMJ) will produce temporo-mandibular dysfunction (TMD). This inflammation can be acute from trauma (usually from sports or playing) or chronic from a long-term disc malposition or osteoarthritic bone changes. There is no other joint in the body like the TMJ. The TMJ is the only joint that can heal and rebuild itself.

The basic anatomy of the joint is a ball, a socket, and a disc that allows the ball to slide forward along the side of the socket. If this disc is displaced in any direction from normal, then the normal range of motion of the joint will be diminished and inflammation will start. Acutely displaced or dislocated discs will sometimes fix themselves, but often they stay displaced/dislocated unless the joint is stabilized in a position that will allow the disc to slide back into its correct position on top of the "ball". Dental orthotics reposition the "ball" to allow the inflammation in the "socket" to resolve as the joint is decompressed.

A displaced disc will create a clicking sound when opening and closing. A dislocated disc will not have a sound and the range of motion of the jaw is greatly reduced. These problems can occur in one or both joints. Physiotherapy is a useful adjunct in acute cases. If the disc remains displaced, the problem will become chronic. Generally, the later the click happens in the opening cycle the more difficult recapturing the disc becomes.

TMD can cause a variety of symptoms including headaches, poor posture, broken teeth, ear pain without infection, post-nasal drainage, jaw pain, neck pain, facial pain, abnormal or limited opening, shoulder pain and swallowing difficulties.

I treat TMD after doing a very thorough diagnosis using x-rays, Joint Vibration Analysis, muscle palpation, range of motion measurement, photographic analysis, and autonomic nervous system testing.

Once a TMD diagnosis is made, one or two dental orthotics are manufactured and worn for three to six months before maximum medical improvement (MMI) is achieved.

I use a Lumix 2 cold laser to help speed healing and decrease pain symptoms. This is an amazing machine. Every effort is made to wean patients off of the daytime orthotic while maintaining the MMI, but if this can't be done then a Phase 2 treatment will be required which may include full mouth reconstruction, orthodontics, or a combination of both. Some people are happy with continuing to wear their daytime orthotic and have it resurfaced every year or so.