Fact sheet: Temporomandibular Joint Disorders

What is TMJ or TMD?
TMJ stands for temporomandibular joint. A term for the broader condition is TMD, or temporomandibular joint disorders.

What does it mean?
Temporomandibular joint dysfunction is a disorder of the jaw muscles, nerves and blood vessels, caused by a malocclusion of the teeth or injury to the temporomandibular joint. This joint is a hinge that connects your lower jaw to the temporal bones of your skull. It enables you to move your jaw up and down and from side to side, so you can talk, chew and yawn.

What causes TMD?
There can be a variety of causes, including underdeveloped upper jaws, misalignment of the teeth or jaw, and the grinding or clenching of teeth due to stress. Poor posture has also been linked to neck strain and abnormal jaw muscle function. Arthritis can also cause damage to the jaw joint’s cartilage.

Often, when your teeth are not aligned with each other, the jaw automatically shifts to a new position to compensate. This condition is known as malocclusion – when your upper and lower teeth do not fit together properly.

What are some of the symptoms of TMD?
- Pain in the jaw joint, just in front of the ear
- Muscular aches in the face, neck, shoulders and back
- Severe migraines or sinus-like headaches
- Pain behind the eyes
- Inability to open or close your mouth fully or without pain
- Clicking or popping of the jaw
- Lockjaw
- Clenching or grinding your teeth at night
- Dizziness
- Earaches or ringing in the ears
- Swallowing or chewing difficulties
- Arm and finger numbness and/or pain
- Stiff neck or lack of mobility in the neck

How is TMD diagnosed?
Before reaching a diagnosis, your dentist will ask you about your medical history and will check your jaw joint for pain or tenderness, and to assess whether it works as it should. He or she will also test your bite.
Your dental practitioner may then take X-rays of your teeth and jaw joints, and later, if warranted, possibly schedule an MRI to see if the TMJ disc is in the correct position and a CT scan to provide detailed images of the bones in the joint.

Once your TMJ profile has been established, jaw repositioners may be inserted. These appliances are worn for a specific period of time, and will be refined and adjusted until the bite disharmony and pain are eliminated. Permanent treatment would then be prescribed to correct the problem, such as occlusal adjustment, orthodontics, or crowns or bridges.

**Could you explain the various types of TMD treatments?**
Most treatments are non-invasive and do not require surgery, except in extreme cases.

- **Occlusal equilibrium:** The tops of the teeth are reshaped to ease pressure on individual teeth, which will in turn relieve discomfort in the head and neck region. For example, a tooth that is causing irritation because it is too high will be reshaped to create a better fit.
- **Occlusal restoration:** This involves replacing or reconstructing teeth in addition to reshaping them, thereby allowing the facial and jaw muscles to relax.
- **Splint/jaw template:** These dental appliances or mouthpieces that fit over your teeth are initially used to diagnose TMD, and then to temporarily eliminate the bite disharmony and consequent pain. If you clench or grind your teeth at night, you may need to wear a bite guard only while you sleep. But you may be required to use oral splints all the time to keep the lower jaw aligned.
- **Orthodontics, crowns, bridges, braces:** These may be used during the second phase of treatment, to create a permanent new bite that eliminates the patient’s pain and discomfort.
- **Cranio-sacral therapy or muscle stimulation:** Muscle stimulation techniques and cranio-sacral therapies are vital to the recovery of the muscles and the jaw joint. They can help ease the pain prior to and during treatment.
- **Physiotherapy and chiropractic treatment:** This will alleviate muscle spasms and realign the spine.

**How can TMD treatment help patients with Tourette’s syndrome?**
Tourette’s patients often exhibit involuntary and uncontrollable facial tics and vocalisations. Treating them with TMJ/TMD methods such as mouthpieces has proved highly effective internationally and in South Africa. These mouthpieces are not noticeable to others but serve to realign the jaw and reduce or eliminate the tics.

**Which South African dentists specialise in treating jaw disorders such as TMD?**
Contact De Necker Dentistry, with branches in Melville (Johannesburg), George and Century City (Cape Town). Visit [http://deneckerdentistry.com](http://deneckerdentistry.com) for more details.

*Sources: De Necker Dentistry, WebMD.com, mayoclinic.org, medicinenet.com*