Ng Teng Fong General Hospital



Temporomandibular Disorders (TMD)

The Department of Dentistry's multi-disciplinary team cares for your oral health and wellness, and provides you with personalised service that is integrated, comprehensive, team-based and affordable in a friendly and relaxed environment. Apart from routine check-ups, we perform general dental treatment and specialised services like dental implants, TMJ (jaw pain/disorders) and bite therapy, braces, gum, wisdom tooth, facial and jaw surgery. Our clinics are equipped with facilities to provide you with an optimal experience. In addition to outpatients and inpatients, we see specialist referrals from other hospitals, polyclinics, the Armed forces, School Dental Services and private dental and medical practitioners.



Unexplained headache, jaw and ear pain?

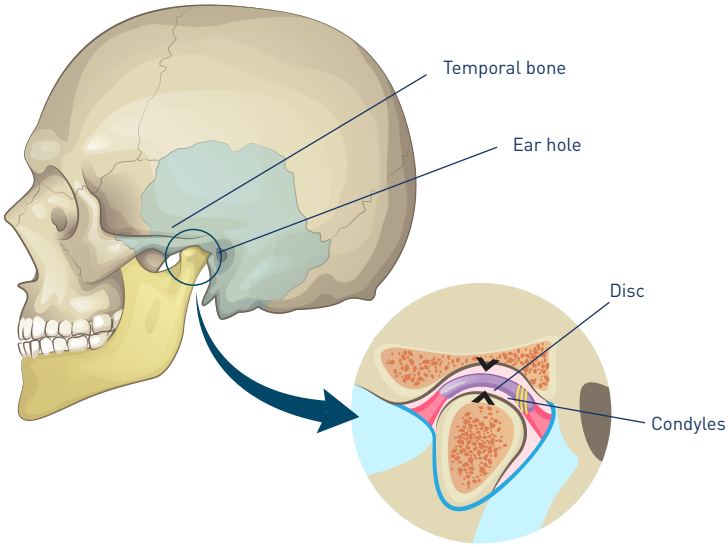
What is TMD?

Temporomandibular disorders (TMD) is a term used to describe a group of dental or medical conditions affecting the jaw joints (temporomandibular joint or TMJ) and chewing muscles of the face. It is a common cause of non-tooth related facial pain and affects females more than males. As the symptoms of TMD often overlap with other medical conditions, it is often under or mis-diagnosed.



What is TMJ?

Temporomandibular joint (TMJ) is the joint that connects your lower jaw (mandible) to the skull's bone. Situated on each side of the head and in front of the ears, it is a flexible joint that moves side to side and up and down. It enables us to chew, talk and yawn.



The TMJ and disc

The muscles attached to and surrounding the TMJ control its position and movement. A soft disc lying between the rounded end of the joint (condyle) and the joint socket (glenoid fossa) helps to keep jaw movements smooth, absorbing stress and shocks to the TMJ as we chew and perform other jaw functions.

What causes TMD?

The cause of TMD is not always clear and varies between people. It is usually the result of a few factors:

- **Bruxism:** The unconscious clenching or grinding of teeth during sleep or when one is awake.
- **Trauma:** Injury to the face and/or jaws, prolonged or wide mouth opening, biting on hard food, etc.
- **Habits:** Gum chewing, eating on one side, poor jaw posture, etc.
- **Bad bite and jaw relationships:** Poorly-aligned teeth, skeletal problems, etc.
- **Diseases:** Systemic arthritis, certain neurological conditions, tumour, etc.
- **Emotional:** Stress, anxiety, depression, etc.



An example of worn teeth caused by sleep bruxism

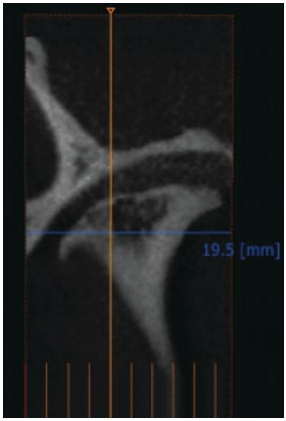


An example of poor bite and jaw relationships

Symptoms of TMD

The indicators of TMD include:

- **Headaches**
- **Ear symptoms:** Ear pain, blocked feeling, ringing sounds, partial hearing loss, dizziness
- **Jaw pain or tenderness:** Painful jaw joints or chewing muscles located in temples and cheeks
- **Jaw joint sounds:** Clicking, popping and grating sounds
- **Jaw function difficulty:** Problems with chewing, yawning, talking and opening the mouth
- **Abnormal jaw opening:** Restricted opening, irregular movement, catching and locking
- **Bite and teeth problems:** Change in fit of teeth, sore and cracked teeth
- **Neck and shoulder pain**



A CT scan of severely degenerated jaw joints that produce grating sounds

TMD can significantly affect your quality of life!

How is TMD diagnosed and managed?

TMD is diagnosed through comprehensive medical history, physical examination and psychological screening (where applicable). Routine or special X-rays like MRI and CT scans are sometimes used to diagnose the condition.

TMD management depends on the type and duration of TMD you are suffering from and the extent of tissue damage. Treatment is aimed at reducing pain, decreasing adverse loading of the jaw joints and muscles, restoring function and allowing you to return to normal activities. Treatment begins with conservative therapies that are not invasive and include:

- Education and self-care practices
- Behaviour modification of harmful habits
- Psychotherapy, including stress management and relaxation techniques
- Medications
- Physical therapy
- Dental splint therapy



An example of splint therapy

If TMD is chronic, long standing or associated with major structural changes and/or significant psychological distress and disability, the following may be advised:

- Jaw joint surgery
- Bite (occlusal) therapy
- Orthodontics

Self-care tips for TMD

Most of the reasons that cause your jaws and chewing muscles to hurt are not life-threatening. They can, however, be distressing and affect your quality of life.

The following self-care practices can help you manage TMD:

Rest your jaw muscles and joints

- Avoid clenching and grinding your teeth. Relax your jaw by resting the tip of your tongue against the palate, keeping your teeth apart with face and jaws relaxed.
- Avoid chewy or hard food.
- Avoid chewing gum, biting your nails or other objects.
- Avoid eating on the side that hurts.

Avoid opening your mouth too wide

- Suppress your yawn to prevent your mouth from opening too wide.
- Cut food into small pieces.
- Avoid long dental appointments. Inform your dentist of your condition/s and take frequent breaks during appointments.

Apply hot or cold compresses, perform stretching exercises

- Cold packs are used immediately following an injury (up to two days) while heat packs are used for long term, lingering pain.
- Apply a hot or cold pack directly to the painful area of your jaw for five minutes.
- Gently massage and stretch your mouth open and close five times without hurting yourself. Repeat five times.

Manage your stress

- Stress decreases your body's tolerance and "happy-pain killing" hormones.
- Most people react to stress by clenching or grinding their teeth. This is accompanied by tightening of the facial and neck muscles.
- Choose a stress relief method that best suits you and stick to it.
- Practice relaxation (e.g. deep breathing exercises) throughout the day.

Posture

- Be aware of your posture throughout the day. Keep shoulders, back and head upright and maintain good back support.
- Avoid slopping your shoulders.
- Avoid crossing your legs for prolonged periods. Keep feet flat on the floor.

Sleep

- Sleep on your back or side. Sleeping on the stomach puts pressure on your jaws.
- Get adequate sleep.
- Practice good sleep hygiene.
- Massage your face and neck before bed.

Exercise

- Choose low-impact exercise to avoid trauma to your joints, e.g. swimming, brisk walking, etc.
- Avoid clenching your teeth during exercise.
- Take the opportunity to exercise and stretch.

Nutrition

- Avoid caffeine, alcohol and tobacco.
- Drink plenty of water throughout the day.
- Eat your meals regularly, especially if you are taking aspirin, synflex or ibuprofen.

Use of your dental splint

Your dental splint is designed to protect, unload and/or stabilise your jaw muscles and joints. It should help you feel more comfortable and facilitate healing.

To obtain maximum benefit, please note the following:

When to use your splint



- Your splint should be worn when you are asleep where bite forces are the greatest.
- Daytime wear may be recommended if you experience severe stress or pain.
- Avoid wearing your splint for 24 hours unless instructed to do so.
- Do not wear your splint when you are eating.

Do not bite down on your splint

- Your teeth should not touch the splint when you are awake.
- Monitor your jaw position and try to break this habit.

Getting used to your splint

- In the first few days of using your splint, you may salivate more or experience a temporary increase in jaw tension or noises. You may also subconsciously remove it in the middle of the night.
- If your splint is causing your teeth to hurt, remove it and have it readjusted.
- Increase the frequency of your splint wear until you reach the recommended wear schedule.

Relaxation of your jaw muscles

- Your jaws may take a few minutes to adjust back to the way it was when you remove your splint after wearing it. This is usually caused by the relaxation of your jaw muscles and the settling in of your teeth after a night of clenching and/or grinding.
- If you had an orthodontic treatment or have a severe bite problem, your new relaxed jaw position may be more comfortable than your original one.

This may be associated with bite changes and the need for bite therapy. Please inform us immediately should the latter occur.

When you are not wearing your splint

- Place your splint in a safe place and in a protective container.
- Avoid leaving it in a warm place. This prevents distortion.
- Store it in a moist environment if you are not wearing it for more than eight hours. Place it in a container of tap water, zip-lock bag or container with a few drops of water or a wet piece of facial cotton.

Cleaning your splint

- Clean the inside and outside of your splint with a toothbrush and some toothpaste daily.
- Soak your splint in a denture cleaning solution once a week.

Splint review and modifications

- Your splint needs to be periodically reviewed and adjusted due to changes in your jaw position. It also allows your dentist to check the wear-and-tear of your splint.
- Remember to bring your splint with you to each appointment.

When to stop using your splint

- Your duration of wear will depend on your specific condition/s and symptoms.
- While some patients can stop wearing splints after a pain-free period, others have to wear them for years.

Ng Teng Fong General Hospital
1 Jurong East St 21, Singapore 609606
OneNUHS Hotline: (65) 6908 2222
OneNUHS General Enquiries: contactus@nuhs.edu.sg
OneNUHS Appointments: appointment@nuhs.edu.sg
www.ntfgh.com.sg

Scan for
more information

Take charge of your health and access health information and services across NUHS institutions.
Download the NUHS App now!

NUHS

Scan to download

The information in this brochure is meant for educational purposes and should not be used as a substitute for medical diagnosis or treatment. Please seek your doctor's advice before starting any treatment, or if you have any questions related to your health, physical fitness or medical condition.

© 2025, Ng Teng Fong General Hospital. All rights reserved. No part of this publication may be reproduced or shared without prior permission from Ng Teng Fong General Hospital.

Information is correct at time of printing [Jun 2025] and subject to revision without prior notice.