

# EASING THE JAW

## Physiotherapy's Role in TMJ Disorders



Physiotherapy *with*

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# 1. Introduction: **Understanding TMJ Disorders**

The temporomandibular joint (TMJ) serves as one of the most complex and frequently used joints in the human body. It connects the jawbone to the skull and enables the essential movements required for chewing, speaking, and facial expressions. Despite its critical role, the TMJ is also a common site for disorders that can significantly impact the quality of life, causing pain and dysfunction that resonate beyond simple jaw movements.

TMJ disorders (a.k.a TMD) encompass a variety of conditions affecting the joint's muscles, the jaw itself, or the nerves associated with the area. Symptoms of TMD can range from mild discomfort to severe pain. They can include difficulty opening the mouth, a clicking or popping sound when the jaw moves, headaches, and even changes in how the upper and lower teeth fit together. These symptoms can be transient or become chronic challenges for those affected.

The prevalence of TMJ disorders varies, but they are thought to affect a significant portion of the population at some point in their lives. Often, people may not realise that their symptoms are related to TMD, or they might delay seeking help due to a lack of awareness about effective treatments.

Recognising the early signs of TMJ disorders and understanding the role of physiotherapy in managing these conditions are crucial proactive steps toward recovery. This e-book is designed to guide you through the anatomy of the TMJ, the common causes and symptoms of disorders, and the comprehensive role physiotherapy can play in treatment. Our goal is to empower you with knowledge and practical solutions, helping you to take control of your health, alleviate discomfort, and improve your overall well-being.

## 2. CAUSES AND SYMPTOMS OF TMJ DISORDERS

TMJ disorders arise from various factors, each contributing to the complexity and diversity of symptoms that patients experience. Understanding these causes and recognising symptoms early can significantly enhance the effectiveness of treatment and prevent further complications.

### Causes of TMJ Disorders

**Mechanical Issues:** The TMJ is susceptible to wear and tear due to overuse, such as excessive chewing or teeth grinding (bruxism). Dislocation of the joint disk or arthritis can also lead to TMJ disorders.

**Injury:** Trauma to the jaw or head, such as a heavy blow during sports or accidents, can directly impact the TMJ, leading to immediate or delayed symptoms.

**Genetic Factors:** Some individuals may inherit a predisposition to jaw problems, including structural irregularities or a natural tendency towards joint inflammation.

**Stress:** High stress levels can cause one to clench the jaw or grind teeth, particularly during sleep. This repeated stress can strain the TMJ and surrounding muscles.

**Poor Posture:** Chronic neck and spinal postural issues can affect the jaw's alignment, exerting abnormal pressure on the TMJ.

## Symptoms of TMJ Disorders

### Pain and Tenderness

Pain is most commonly felt in the jaw but can also radiate to the ears, face, neck, and shoulders.

### Restricted Movement

Difficulty or discomfort while opening or closing the mouth, often accompanied by a clicking, grinding or locking sensation.

### Noises

Clicking, popping, or grating sounds in the jaw joint when opening or closing the mouth, which may or may not be painful.

### Other Symptoms

Headaches, earaches, dizziness, and even changes in hearing can be associated with TMJ disorders.

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**Recognising these symptoms as potentially indicative of a TMJ disorder is crucial for timely and effective management. Early intervention can alleviate pain and restore function, significantly improving quality of life.**

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# 3. Diagnosing TMJ Disorders



Diagnosing TMJ disorders involves a thorough assessment by a specialised physiotherapist to ensure accurate diagnosis and appropriate treatment planning.

In Australia, you may self-refer to a physiotherapist without a doctor or dentist referral. If necessary, your physiotherapist may refer you to a dentist, maxillofacial specialist, or ENT specialist, depending on the complexity of your symptoms and examination findings.

## CLINICAL EXAMINATION

The initial step in diagnosing a TMJ disorder begins with a detailed clinical examination by a physiotherapist specialising in treating TMJ disorders. During this examination, the clinician will:

**Review Your Medical History:** This includes discussing symptoms, duration, previous injuries, and any underlying health conditions that might contribute to TMJ problems.

**Complete a Physical assessment:** Your physiotherapist will carefully palpate the jaw and related structures to detect pain, tenderness, myofascial trigger points, and joint movement abnormalities. They will also assess the jaw's overall function and listen for sounds like clicks or pops during jaw movement. There are several special diagnostic tests that will be performed depending on your history and type of symptoms. Some types of TMJ disorder arise from the neck, so it is essential to assess the neck carefully for signs of dysfunction that may be causing or exacerbating TMJ pain symptoms.

# Imaging Tests

The majority of TMJ disorders do not require imaging scans; however, imaging may be arranged, if necessary, to investigate the jaw structure and assess the extent of the disorder in certain cases, depending on the clinical examination.

## 1 X-RAYS

Provide basic images of the jawbone and joints, helping to identify abnormalities or changes in the joint structure.



## 2 CT SCANS

Offer a more detailed view of the bone and are helpful in checking the bony detail of the joint.



## 3 MRI SCANS

These are excellent for viewing soft tissues, including the joint disc and surrounding muscles, and they can determine if the disc is in the correct position as the jaw moves.



**Once a thorough diagnosis is established, a course of physiotherapy treatment can be tailored to the patient's individual needs. Effective diagnosis is crucial as it informs the direction of subsequent treatments, ensuring they are as effective and targeted as possible.**





## 4. Basic Physiotherapy Techniques for TMD Relief

Physiotherapy offers a range of non-invasive techniques that are highly effective in alleviating symptoms of TMJ disorders.

These methods reduce pain, improve joint function, and facilitate recovery. Here, we explore foundational physiotherapy techniques for patients, including exercises that can often be performed at home under professional guidance.



## JAW EXERCISES

One of the primary physiotherapy methods for TMJ disorders involves exercises to relax and strengthen the jaw muscles, improve flexibility, and increase jaw mobility. Examples include:

**Controlled Jaw Opening:** Use your fingers to gently assist in opening and closing the mouth to increase range without pain. Other exercises include specific positioning of the tongue and breathing techniques while performing certain movements.

**Chin Tucks:** Nodding the head and gently tucking the chin to create a "double chin" stretches and aligns the neck and jaw muscles.

## MANUAL THERAPY

Manual therapy involves gentle, hands-on techniques to improve movement and reduce discomfort in the jaw joint and muscles. These can include:

**Soft Tissue Mobilisation:** Gentle modified massage techniques are applied to the jaw muscles to reduce tension and pain.

**Joint Mobilisation:** Small, rhythmic movements are applied to the jaw joint to alleviate pain, improve mobility and decrease stiffness.



## HEAT AND COLD THERAPY

Applying heat or cold can help reduce muscle tension and pain around the jaw. Patients are often advised to:

**Apply Warm Towels:** Heat can help relax tight muscles and improve blood circulation.

**Use Cold Packs:** Cold therapy can reduce inflammation and numb sharp pain.

**Educating patients about posture, relaxation techniques, and stress management is also a crucial part of treatment.**

Good practices include:

**Avoiding Excessive Jaw Movements:** Such as yawning widely or chewing gum, which can exacerbate symptoms.

**Stress Reduction Techniques:** Incorporating mindfulness, meditation, or breathing exercises to reduce jaw-clenching habits due to stress.

**These basic physiotherapy techniques can help manage acute symptoms and contribute to long-term relief from TMJ disorders. By integrating these practices into daily routines, patients can significantly enhance their quality of life and potentially reduce the need for more invasive treatments.**



## 5. Advanced Physiotherapy Interventions

While basic techniques provide foundational relief, advanced physiotherapy interventions can further enhance treatment outcomes for those suffering from TMJ disorders. These specialised approaches, used by physiotherapists like us with advanced training in TMJ disorder treatment, include a variety of modalities to target the more challenging aspects of TMJ disorders.

### Manual Therapy Techniques

Advanced manual therapy techniques involve more intricate manipulations and adjustments tailored to the specific needs of TMD patients:

**Deep Joint Mobilisation:** These include deeper, more precise joint mobilisations to increase mobility and decrease joint stiffness, which can be particularly effective for patients who do not respond to standard mobilisation.

**Intra-Oral Techniques:** For direct access to the muscles and tissues that are harder to reach, intra-oral techniques involve working inside the mouth to release tight muscles and reduce pain directly at the source.

## Ultrasound Therapy

**Therapeutic Ultrasound:** This modality uses sound waves to generate deep heat within tissue, which can help reduce inflammation, increase blood flow, and speed up the healing process. It's particularly useful for deep-seated pain in the TMJ area.

## Laser Therapy

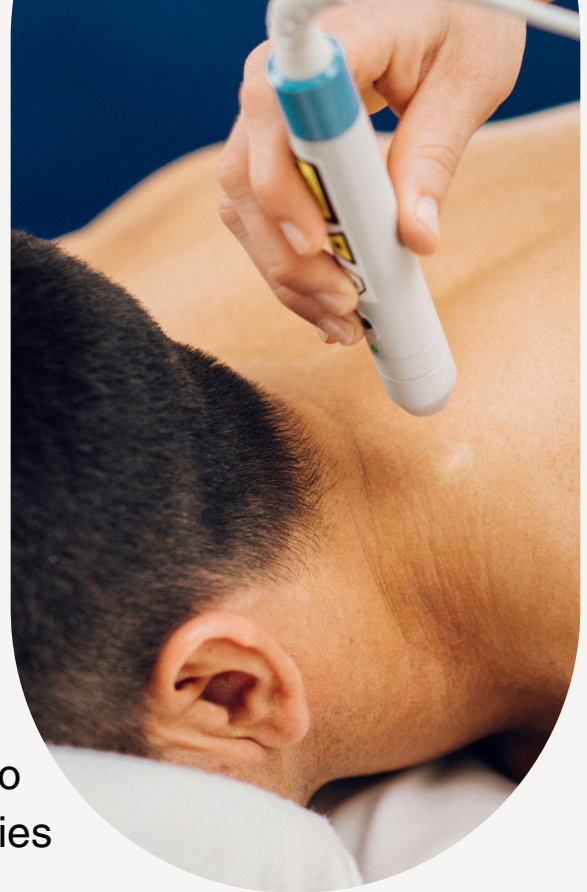
**Low-Level Laser Therapy (LLLT):** Also known as cold laser therapy, LLLT applies low-intensity light to areas of pain and inflammation. It can stimulate cell regeneration and reduce inflammation and pain, offering a non-invasive option to alleviate symptoms of TMJ disorders.

## Electrical Stimulation

**Transcutaneous Electrical Nerve Stimulation (TENS):** By delivering mild electrical currents to the skin near the site of pain, TENS can help relieve pain by blocking pain signals to the brain and encouraging the production of endorphins, the body's natural painkillers.

**Electro-acupuncture:** This technique involves passing a very gentle electrical current via fine acupuncture needles into the muscles of the neck and jaw which is very effective in alleviating pain, easing muscle tension, and deactivating myofascial trigger points.

By combining these advanced physiotherapy techniques, we can offer a comprehensive treatment plan that addresses the multifaceted nature of TMJ disorders. These interventions not only alleviate pain but also work to restore function and prevent future occurrences, significantly enhancing patient outcomes.



## 6. INTEGRATIVE APPROACHES TO MANAGING TMJ DISORDERS

Managing temporomandibular joint disorders effectively often requires an integrated treatment approach. Here we explore how physiotherapy can be seamlessly combined with other therapeutic strategies to provide comprehensive care for patients with TMJ disorders.

### Combining Physiotherapy with Dental Interventions

Some TMJ disorders stem from or are exacerbated by dental issues such as malocclusion or bruxism (teeth grinding). In such cases, collaboration between physiotherapists and dentists is crucial. Dentists may provide devices like occlusal splints to correct bite discrepancies and protect the teeth from grinding, which physiotherapists can complement with muscle relaxation techniques and joint mobilisation.

### Incorporating Medical Acupuncture and Dry Needling

Physiotherapists with advanced training use Medical Acupuncture and Dry Needling, which are valuable additions to the physiotherapy regimen for TMJ disorders. Medical Acupuncture can help reduce pain and inflammation by stimulating specific locations in the body, promoting natural healing. Dry needling targets muscular trigger points that are often a significant source of jaw pain, providing relief and enhancing the effectiveness of manual therapies.

# Lifestyle Modifications

Patient education on lifestyle modifications plays a pivotal role in managing TMJ disorders.



**Physiotherapists can guide patients on:**

## **Ergonomic Adjustments:**

Improving workplace ergonomics to reduce strain on the neck and jaw, such as adjusting the height of computer screens and using ergonomic pillows.

## **Dietary Adjustments:**

Adopting a soft diet temporarily to decrease joint strain during severe flare-ups and teaching jaw-friendly eating techniques.

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# Stress Management

Since stress can exacerbate TMJ symptoms by leading to unconscious jaw clenching and teeth grinding, incorporating stress management techniques such as yoga, meditation, and deep breathing exercises can be beneficial.

Integrating these various therapeutic approaches allows for a more holistic treatment of TMJ disorders, addressing not only the physical symptoms but also the underlying causes.

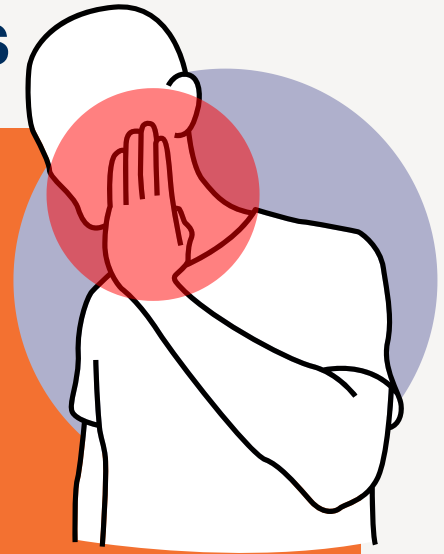
This comprehensive care strategy ensures patients receive the most effective management possible, tailored to their individual needs.

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# 7. Preventing TMJ Disorders

Prevention is key to managing and avoiding the onset of temporomandibular joint (TMJ) disorders. Here we explore strategies that can be used to minimise the risk of developing TMJ problems and enhance overall jaw health and function.



## MAINTAINING GOOD PHYSICAL HEALTH

**Regular Exercise:** Engage in overall physical activity to improve muscle tone and posture, which can indirectly benefit TMJ health.

**Jaw Exercises:** Perform specific exercises designed to strengthen jaw muscles and improve flexibility, as recommended by a physiotherapist.

## OPTIMAL ORAL HABITS

**Mindful Eating:** Avoid chewing hard or sticky foods that require excessive jaw force, and try to chew evenly on both sides of the mouth.

**Reduce Jaw Strain:** Minimise habits like gum chewing, nail-biting, and yawning widely, which can place undue stress on the TMJ.

## ERGONOMICS AND POSTURE

**Work and Sleep Postures:** Ensure that workstations are ergonomically set up to maintain good posture. Use a supportive pillow and try to sleep on your back to reduce pressure on the jaw.

## STRESS MANAGEMENT

**Relaxation Techniques:** Practice stress-reducing techniques such as deep breathing, yoga, or meditation to prevent jaw clenching and grinding, which are common stress responses that affect the TMJ.

## REGULAR CHECK-UPS

**Dental and Physiotherapy Visits:** Regular visits to the dentist can help catch and address dental issues that could impact the TMJ, and routine physiotherapy 'maintenance sessions' can help maintain muscle and joint health.

By incorporating these preventive measures, individuals can significantly reduce the likelihood of experiencing TMJ disorders. These strategies contribute to the health of the TMJ and promote overall well-being, reinforcing the importance of a holistic approach to health maintenance.



CHECK-UP

# 8. Frequently Asked Questions

Here are some questions we are often asked by our patients.

## **What causes TMJ disorders?**

TMJ disorders can arise from a variety of factors, including dental problems, arthritis, trauma to the jaw, excessive jaw use (like chewing gum), stress, and poor posture. Each case is unique, and the exact cause might involve several factors.

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## **Can physiotherapy completely cure TMJ disorders?**

Physiotherapy can effectively manage and significantly reduce the symptoms of TMJ disorders. While some cases can be resolved completely with physiotherapy, others might require ongoing management or additional interventions depending on the underlying cause and severity.

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## **Is it normal to hear popping sounds from the jaw?**

Popping or clicking sounds can be common and aren't necessarily a cause for concern if they aren't accompanied by pain or restricted movement. However, if these sounds are painful or occur with limited jaw movement, it's important to seek an assessment from a physiotherapist.

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## **How long does it take to see improvements from physiotherapy?**

Improvements can vary depending on the individual case and adherence to the treatment plan. Some patients may notice improvements within a few weeks, while others might need a longer period to see significant changes.

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## **Are there any self-care tips to prevent TMJ pain?**

Yes, maintaining good posture, avoiding excessive jaw movements, managing stress, and practising relaxation techniques can help prevent TMJ pain. Additionally, using heat or cold packs, as advised by your physiotherapist, can provide temporary relief.

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## **When should I seek professional help for TMJ symptoms?**

If you experience persistent jaw pain, difficulty in moving your jaw, or if your jaw locks, it's important to consult a physiotherapist for a proper diagnosis and appropriate treatment.

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## 9. Conclusion: Empowering Through Education

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*Throughout this e-book, we have explored the complex nature of temporomandibular joint (TMJ) disorders and the vital role physiotherapy plays in treating and managing these conditions. From understanding the anatomy and causes of TMJ disorders to diving into both basic and advanced physiotherapeutic techniques, we have covered a broad spectrum of interventions designed to alleviate pain and improve quality of life.*

Our journey through the chapters emphasised the importance of early diagnosis and the benefits of an integrated treatment approach. We highlighted how physiotherapy seamlessly integrates with different techniques like medical acupuncture & dry needling to provide comprehensive care. We also touched on the value of preventive measures and regular self-care, which are crucial in avoiding the onset or worsening of TMJ symptoms.

Education is a powerful tool in health management. By understanding the factors contributing to TMJ disorders and recognising the symptoms early, individuals can take proactive steps toward seeking timely and effective treatment. Additionally, the self-management techniques and lifestyle modifications discussed offer practical ways to maintain jaw health and prevent future complications.

We encourage readers to continue exploring TMJ health, consult with healthcare professionals specialising in the treatment of TMJ disorders for personalised advice, and not ignore the early signs of TMJ disorders. Whether you are currently experiencing symptoms of TMJ disorders or are simply interested in learning more about this condition, remember that there are resources and professionals ready to assist you.

If you would like to book an appointment at our clinic, please give us a call on **07 35328605** or **BOOK NOW** online.

Thank you for taking the time to educate yourself about TMJ disorders. We hope this e-book has been informative and empowering, providing you with the knowledge and tools to lead a healthier, more comfortable life.



*Simon & Lorraine*

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