

MYOFUNCTIONAL SLEEP APPLIANCES

myosa[®]

**EVALUATION, DIAGNOSIS AND
TREATMENT OPTIONS FOR**



TMJBDS[®]

**FOR TMJ, BREATHING
& DISORDERED SLEEP**

MYOSA[®] TMJBDS[®] SYSTEM TREATS:

TEMPORO-MANDIBULAR JOINT DISORDER	BREATHING & DISORDERED SLEEP
JAW CLICKING AND PAIN	SLEEP DISORDERS
HEADACHES	TEETH GRINDING
NECK PAIN	SNORING
EAR PAIN	FATIGUE

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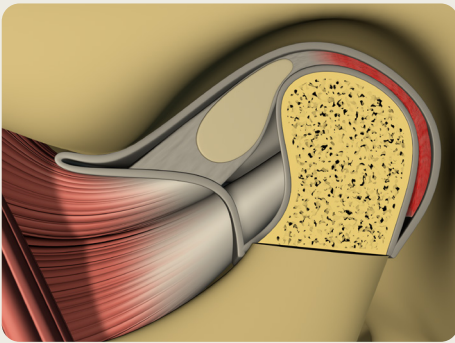
WORLDWIDE PATENTS, FOR MORE INFORMATION VISIT MYORESEARCH.COM

TMJ

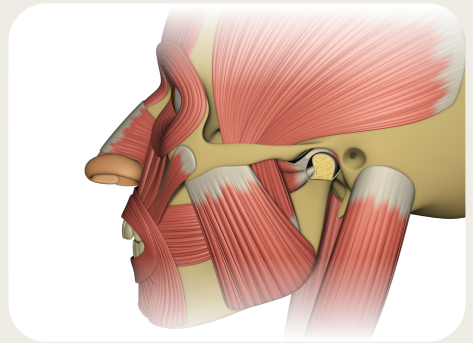
TEMPORO-MANDIBULAR JOINT (TMJ) DISORDER

Headaches, neck pain and/or shoulder aches, combined with other related symptoms, may be a sign of TMJ Disorder. Sufferers usually deal with these problems for many years and do not receive successful treatment. This means sufferers often learn to live with the pain.

The associated pain can either come from the jaw joint itself or more commonly the muscles of the head, neck and back. Mouth breathing and the resulting incorrect swallow contribute to the cause and must be treated to remove the stress on the TMJ and associated muscles.



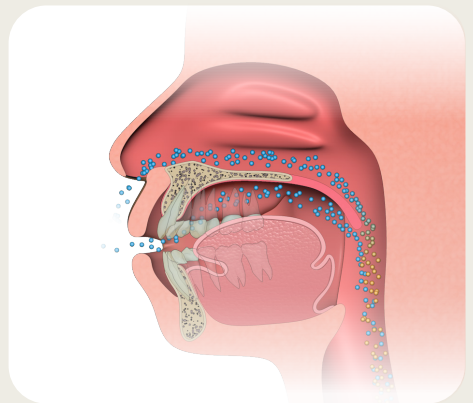
TMJ disc displacement produces a clicking sound



Temporo-Mandibular Joint and associated muscles

BREATHING AND DISORDERED SLEEP (BDS)

The most common form of Breathing & Disordered Sleep (also known as Sleep-Related Breathing Disorders) is chronic mouth breathing which leads to poor jaw development, low tongue posture and weak airway muscles causing airway obstruction. In children, BDS has many negative impacts including poor brain development and behavioural issues, while in adults it can result in many medical problems such as heart disease. Obstructive Sleep Apnoea (OSA), which can eventuate from chronic mouth breathing, is the last stage of BDS and can be life-threatening.



BDS ranges from chronic mouth breathing to OSA

BDS

TEMPORO-MANDIBULAR JOINT, BREATHING & DISORDERED SLEEP

Sleep issues and Jaw Joint Disorders affect a large number of the global population. Most suffering patients are undiagnosed or incorrectly treated since the wide range of symptoms can make it difficult to establish the causes and appropriate treatment.

Symptoms such as headaches, neck pain, snoring and fatigue can seem unrelated, but are often a part of a single problem.

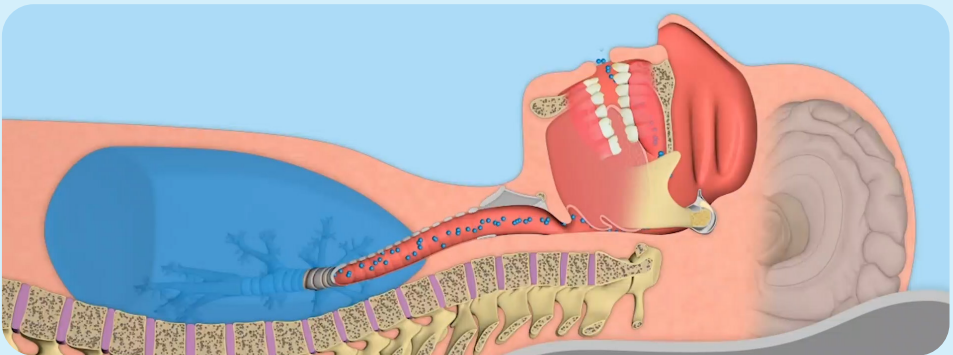
The dental profession has been involved in treating Temporo-Mandibular Joint (TMJ) Disorder since the 1930's and has become more involved in assisting the medical profession (particularly Ear, Nose & Throat Specialists) with the treatment of Breathing & Disordered Sleep (BDS) recently.

These two health issues often occur together, which is due to the interrelated causes. Mouth breathing and poor oral (myofunctional) habits are usually present with sufferers of TMJ Disorder.

These poor habits are initially linked with BDS in childhood and eventually are retained into adulthood, which contributes to TMJ Disorders. Therefore, both conditions must be considered during treatment.

The combined evaluation and treatment program is now under one name - *TMJBDS*[®] - a treatment system involving the Teeth, Muscles, Jaw Joints, Breathing and Disordered Sleep. Many traditional treatment methods can produce temporary symptom relief, however these treatments rarely address the root cause of the problem, often resulting in symptom recurrence or even symptoms becoming worse.

The *Myosa*[®] program involves specific evaluation, diagnosis and treatment to identify the presence of *TMJBDS*[®]. Treatment is directed at providing patients with relief by treating the underlying causes.

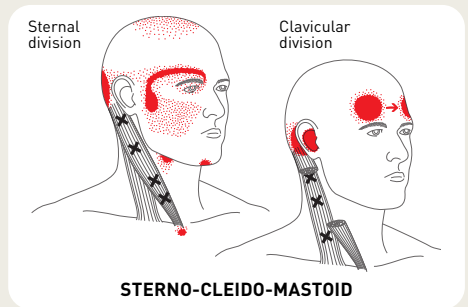
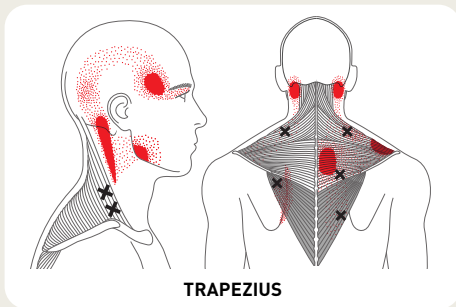
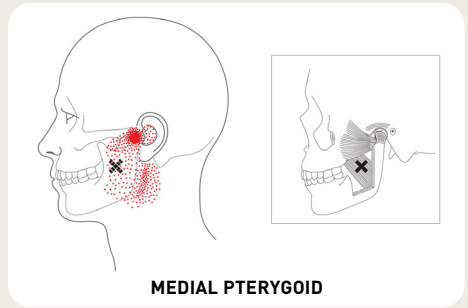
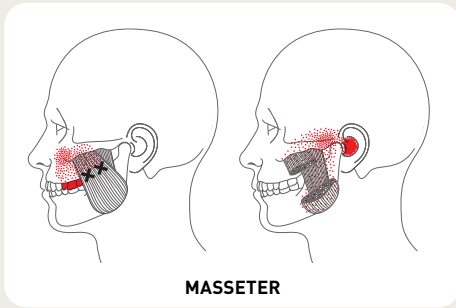
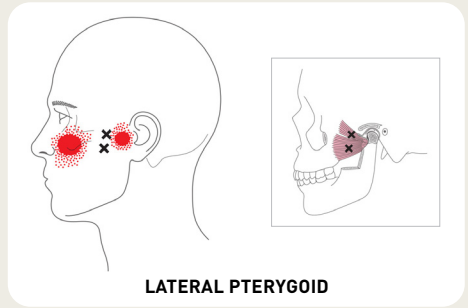
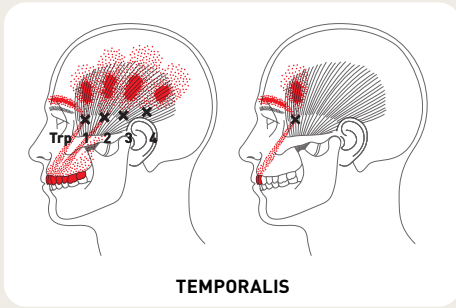


Breathing & Disordered Sleep often leads to a number of medical conditions, including OSA in adults and ADHD in children

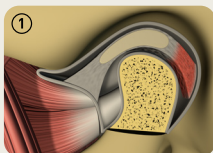
EVALUATION OF YOUR SYMPTOMS

Dr Janet Travell first mapped the pain referral patterns and trigger points associated with TMJ Disorder.

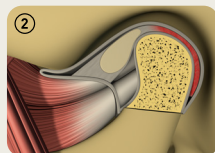
Mark your pain symptoms on the chart to the right. Further evaluation of the TM Joints will assess what stage of dysfunction you have.



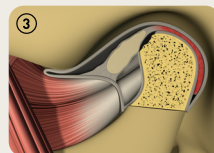
TEMPORO-MANDIBULAR JOINT (TMJ) - STAGES OF DYSFUNCTION



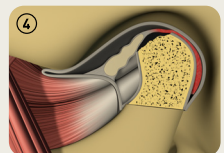
Normal TMJ



Displaced disc with click



Disc and joint degeneration



Disc disintegration and joint erosion

PAIN SYMPTOM CHART

Mark your pain below:

① Headaches & Facial Pain

- Forehead (Frontal)
- Temples (Temporal)
- Migraine type headache
- Maxillary sinus headache (under eyes)
- Headaches at the back of the head

② Eye Pain & Eye Orbital Issues

- Eye pain - above, below, behind
- Bloodshot eyes (hyperaemia)
- Blurred vision
- Bulging appearance
- Pressure behind the eye

③ Ear Pain & Loss of Balance

- Ear pain with infection (otalgia)
- Hissing, buzzing or ringing (tinnitus)
- Diminished hearing
- Feeling of fullness in the ears
- Balance problems/vertigo

④ Jaw & Jaw Joint Problems

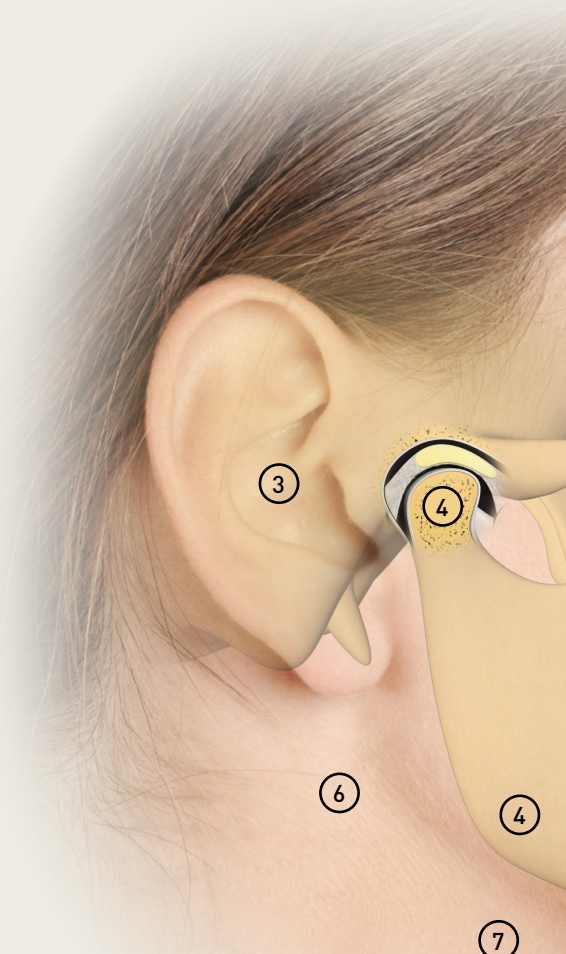
- Clicking/popping jaw joints
- Grating sounds (crepitus)
- Jaw locking opened and closed
- Limited opening
- Inability to open smoothly or evenly
- Jaw deviates to one side on opening

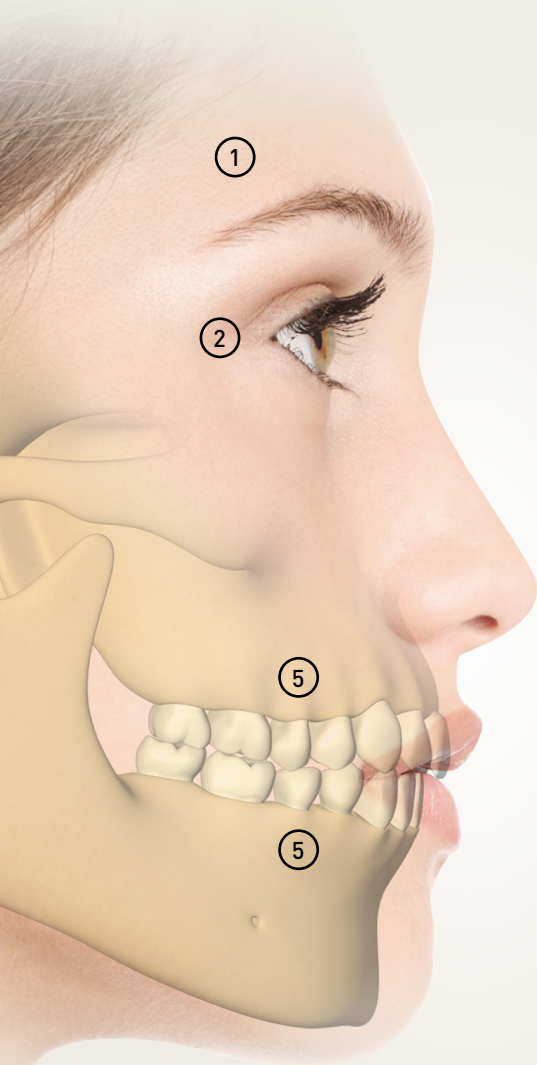
⑤ Teeth & Gum Problems

- Clenching, grinding at night (bruxism)
- Looseness/soreness of back teeth
- Tooth pain (toothache)
- Crowded teeth
- Worn teeth

⑥ Neck & Shoulder Problems

- Neck pain and/or stiffness
- Reduced range of neck movement
- Tired/sore neck muscles
- Shoulder aches
- Back pain - upper and lower





While sleeping do you;

- Snore regularly?
- Wake up often?
- Stop breathing?
- Have difficulty breathing?
- Grind your teeth?
- Get enough sleep?

While awake do you;

- Feel tired or sleepy?
- Wake up with headaches?
- Fall asleep spontaneously?
- Take naps during the day?

- Have you had a sleep study?**
- Have you been diagnosed with OSA?**
- Do you use a CPAP machine?**
- Do you use a dental sleep appliance?**
- Other** _____

⑦ Throat Problems

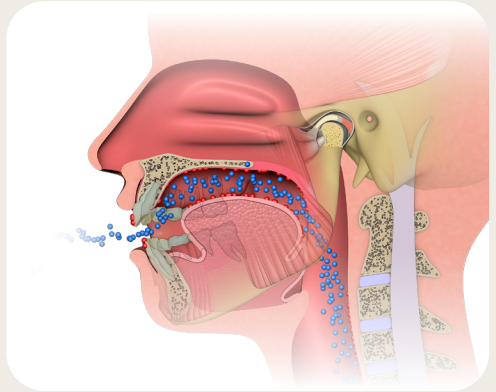
- Swallowing difficulties
- Tightness of the throat
- Sore throat without infection
- Feeling of foreign object in throat
- Tongue pain

TMJ DISORDER & AIRWAY DYSFUNCTION (BDS) - THE CONSEQUENCES

Most habits and patterns that are formed in childhood are retained into adult life as long as the causes of the issue remain unaddressed.

Mouth breathing is a common occurrence in patients who suffer from BDS. When a child breathes through the mouth, the tongue will drop from the roof of the mouth and affect facial development. Furthermore, the lungs are optimised to receive air that is breathed through the nose.

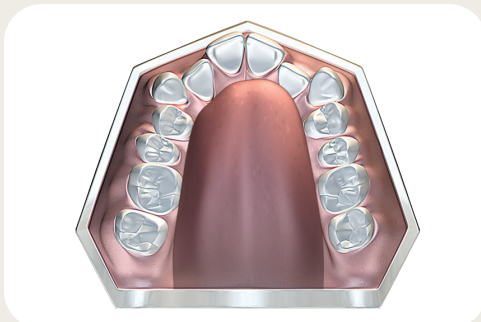
Normal development of the upper jaw requires the tongue to be firmly placed in the roof of the mouth. A low tongue posture caused by mouth breathing prevents the upper jaw from growing correctly. Restricted upper jaw growth results in crowded teeth and a V-shaped arch, instead of the correct U-shaped arch.



Incorrect lower jaw growth narrows the airway

This forward head posture overloads the spine and neck muscles, which results in neck, shoulder and back pain. As breathing becomes more difficult with a smaller airway passage, oxygen levels lower and the body reacts by waking up through the night to consciously open the airway. This is called Obstructive Sleep Apnoea (OSA).

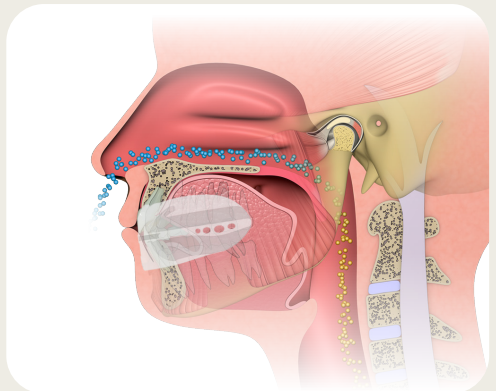
The *Myosa*® for *TMJBDS*® treatment system attempts to turn back the clock, evaluate the real causes of these health problems and devise the best treatment to address the cause and effects of *TMJBDS*®.



Mouth breathing causes narrow jaws and crowded teeth

A narrow arch also produces an incorrect swallowing pattern as the tongue does not have enough room to fit in the roof of the mouth. An incorrect swallowing pattern will cause backward movement of the lower jaw twice per minute during the day and once a minute while sleeping. Over time, this causes trauma to the jaw joints and results in the TMJ disc pushing forward.

This produces a click when opening and closing the mouth because the disc is dislocating. TMJ disorders can also overload the muscles of the head and neck, which can cause headaches and eye/ear pain. As the jaws continue to grow down and back, the airway progressively deteriorates. In order to maintain an open airway, the body will compensate by extending the neck forward and tilting the head back.



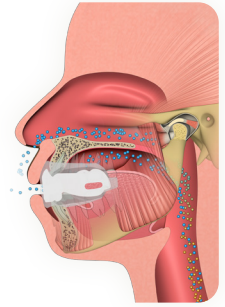
TMJBDS® treatment establishes nasal breathing and treats TMJ Disorder

MYOSA® TMJBDS® TREATMENT APPROACH

After a full evaluation of your symptoms, a *TMJBDS*® treatment plan can be issued. The commencement of treatment involves one or more *TMJBDS*® appliances which must be worn for a minimum of one hour while awake and overnight while sleeping.

Your practitioner will provide you with resources and support to track your progress and symptom resolution. Additional techniques may be warranted based on the level of degeneration of your jaw joints.

The use of the *TMJBDS*® appliances are combined with use of the *Myotalea*® appliances throughout treatment, especially the *TLJ* appliance. When combined with the *TMJBDS*® appliances and exercises, the *Myotalea*® appliances work to actively improve strength and tone of the relevant muscles.



MYOSA® TMJBDS® APPLIANCES

BREATHING IMPROVEMENT PHASES

S1 MOUTH BREATHER VERSION - NON MOULDABLE



S2 PARTIAL NOSE BREATHER VERSION - NON MOULDABLE



S3 ESTABLISHED NOSE BREATHER VERSION - NON MOULDABLE



S1M BETTER RETENTION VERSION - MOULDABLE



S2M PARTIAL NOSE BREATHER VERSION - MOULDABLE

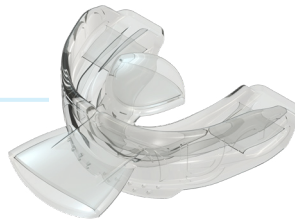


Choosing your appliance

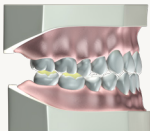
Your practitioner will select your *TMJBDS*® appliances based on how advanced your breathing issues are. The appliances must be combined with specialised exercises and the *Myotalea*® appliances, especially the *TLJ* appliance.

MYOTALEA® TLJ APPLIANCE

USED THROUGHOUT TREATMENT



The *TLJ* is worn in the mouth to exercise the muscles of the mouth, face, jaws and airways.



TMJBDS® Myolay™

The *TMJBDS*® *Myolay*™ is a common technique in which a filling material is used to build up the heights of the back teeth to open the airway and relieve stress on the jaw joint.



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