



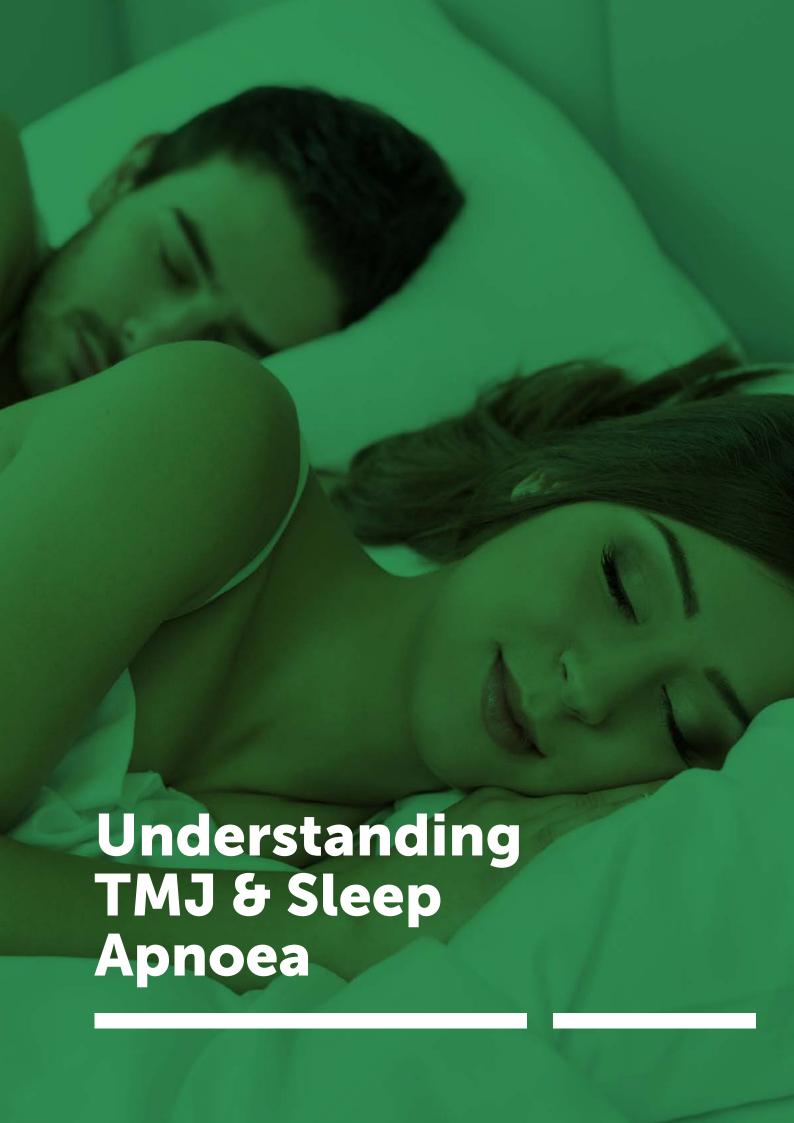
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If you identify with any of the symptoms listed below, it may indicate that you suffer from TMJ or Sleep Disorders.

TMD (Temporomandibular Disorder) Symptoms					
	Chronic Headaches (Migraines, Tension & Cluster)		Restricted Opening Catching or Locking of Jaw		
	Pain in Jaw Joint		Pain When Chewing		
	Swelling on The Side of The Face		Loss of Balance		
	Jaw Popping or Clicking		Sleep Difficulties		
	Sleep Disordo	er Sym	ptoms		
	Snoring		Mood Swings		
	Frequent Night Time Awakenings		Poor Concentration		
	Excessive Daytime Sleepiness		Rapid Weight Gain		
	Morning Headaches		ADD/ADHD		
	Depression		Learning Disabilities		
	Restlessness During Sleep		Bedwetting		
	Sleeping in Odd Positions		Headaches		
	Periods of Not Breathing		Frequent Infections		
	Night Terrors		Teeth Grinding		
*Please see a dentist with special interest in TMJ for a consultation to discuss your symptoms further & arrange treatment if needed.					



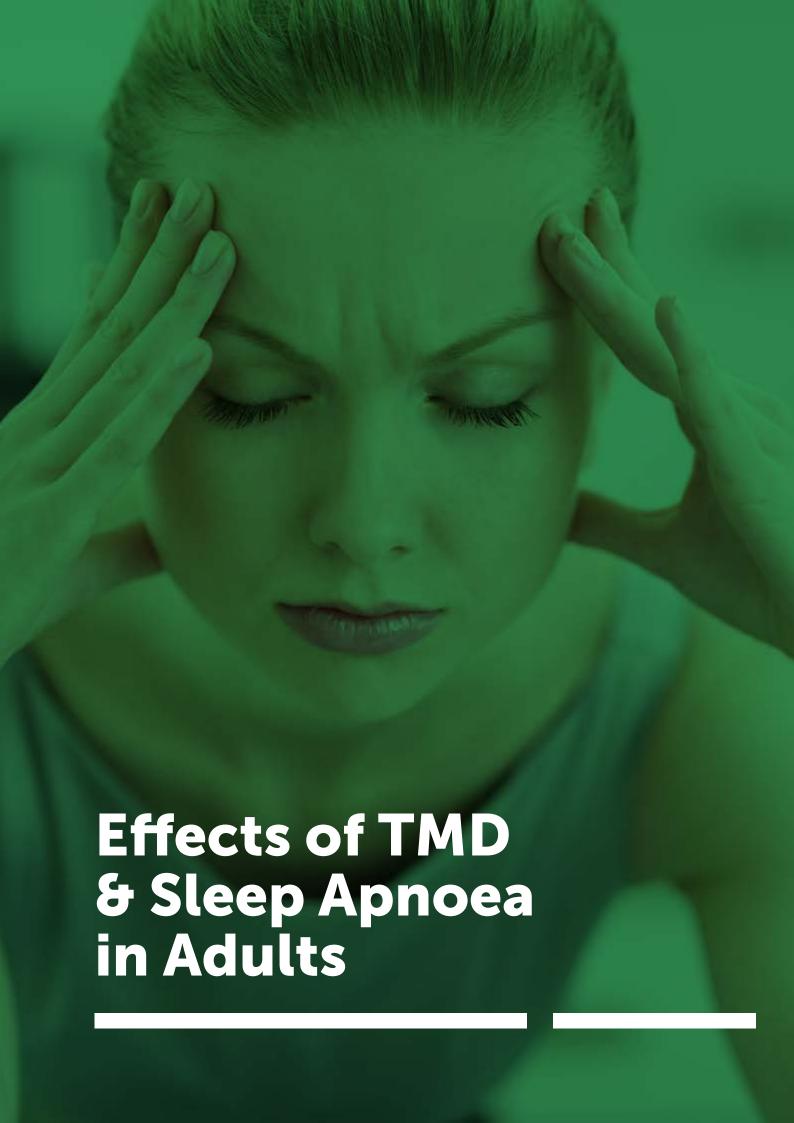
#### What is TMJ and TMD?

The temporomandibular joint (TMJ) is the jaw joint in front of each ear. It is responsible for connecting the lower jaw bone (mandible) to the skull. This joint is very important for the movement required to allow us to perform basic facial expressions, speak and eat. When pain occurs in this joint, associated muscles or problems arise when using the jaw this is known as Temporomandibular Disorder (TMD).

## What is Sleep Apnoea?

Sleep apnoea is a medical condition which occurs when breathing stops for a prolonged period of time or breathing is insufficient during sleep. When left untreated the sleep apnoea can disrupt sleep, cause fatigue, lack of focus, depression, with more extreme medical studies indicating that sleep apnoea can even thicken the arteries responsible for bringing blood to your brain & heart, increasing your risk of cardiovascular disease.

- Reportedly 9-13% of Australians suffer from TMJ dysfunctions (only 4-7% seek treatment)
- TMJ pain can affect daily activities, physical and psychosocial functioning and most importantly quality of life.
- that roughly
  9% of Women
  and 25% of
  Men in Australia
  have clinically
  significant Sleep
  Apnoea
- Financially Sleep Apnoea costs Australia in the range of \$2-8 billion per year



#### TMD in Adults

Over 10% of Australian adults suffer from chronic facial pain, such as jaw pain, headaches or earaches with less then 5% actually seeking treatment. The source of the causes behind TMJ dysfunctions are not completely understood, however the severe pain and discomfort is characterised by unusual muscle tightness and dysfunction in the jaw. Some causes may directly lead to TMJ syndrome while others are a result of the disorder, some causes include:

- Misalignment (malocclusion) of the teeth and/or jaw
- Continual Teeth grinding (bruxism)
- Poor posture
- Arthritis or other inflammatory

- musculoskeletal dysfunctions
- Excessive gum chewing
- Jaw dislocation or injury
- Stress, Anxiety or strenuous physical situations

There are several associated factors that contribute to your risk of suffering from TMJ dysfunctions including:

- Poor posture in the neck and upper back muscles may lead to neck strain and abnormalities of jaw muscle function
- Stress may increase muscle tension and jaw clenching
- Women aged 18 to 44 have an increased risk
- Patients with other chronic inflammatory

- disorders and painful musculoskeletal conditions have increased risk
- People with jaw trauma or poorly positioned teeth have increased risk
- People who have a genetic predisposition to pain sensitivity and increased stress responses may be more susceptible

### **Sleep Apnoea in Adults**

Sleep apnoea causes the airway to narrow or close completely which reduces or stops breathing for short periods during sleep, this may happen many times during a single night and the severity will differ for each patient. When this occurs oxygen levels in your blood decrease and carbon dioxide levels rise, causing your heart and blood vessels to work much harder affecting the heart rate and the bodies nervous system.

Factors that contribute to your risk of having sleep apnoea:

- Age (most common in people aged 30 or over)
- Being male (twice as common in men)
- Obesity (leading factor associated with sleep apnoea)
- Family history
- Ethnicity (Hispanics and Pacific Islanders have a greater risk of sleep apnoea than

caucasians)

- Physical abnormalities (scoliosis, Marfan's syndrome, etc. increase the risk of developing sleep apnoea)
- Poor Sleep habits
- Smoking (nicotine found in tobacco may relax the muscles that keep the airways open)

When left untreated the associated risk factors for patients who suffer from Sleep Apnoea include:

- High Blood Pressure
- Heart disease
- Vascular disease
- Stroke
- Diabetes

On top of the associated risk factors the disturbance in sleep, causes sufferers to tend to be tired during the day meaning they are more likely to:

- Have a car accident
- Have trouble focusing or concentrating at work
- Have memory problems

- Personality changes, anxiety or depression
- Loss of sexual desire

Having untreated sleep apnoea is medically equivalent to smoking a pack of cigarettes a day in terms of what it does to your health.

Jerome Siegel. Ph.D., From the Center for Sleep Research at UCLA



#### TMD in Children

Tightness or soreness in the jaw is a common ailment most people experience from time to time. However, in some cases, it can be so intense that chewing, smiling or even breathing becomes difficult. Despite being considered as an adult disorder, children who experience similar symptoms may have a TMJ dysfunction.

The causes of TMD in children are the same as in adults. Airway obstruction is known to make kids more likely to grind their teeth, clench their jaw or tighten their jaw muscles. Most TMJ problems can be successfully treated without the need for invasive surgery, allowing parents to play an active role in helping their child get better.

Sleep Apnoea in Children

Every parent's priority is the overall health, wellness and development of their child. It is important to understand that sleep apnoea does not have an age boundary. In fact it is a common condition in childhood, frequently misdiagnosed as ADHD and left untreated.

If your child has significant trouble sleeping, sleep apnoea, snoring or noisy breathing could be the reason behind it. The medical condition resulting from a poorly positioned jaw and/or tongue may cause blockage of the airway and create barriers in a child's healthy development.

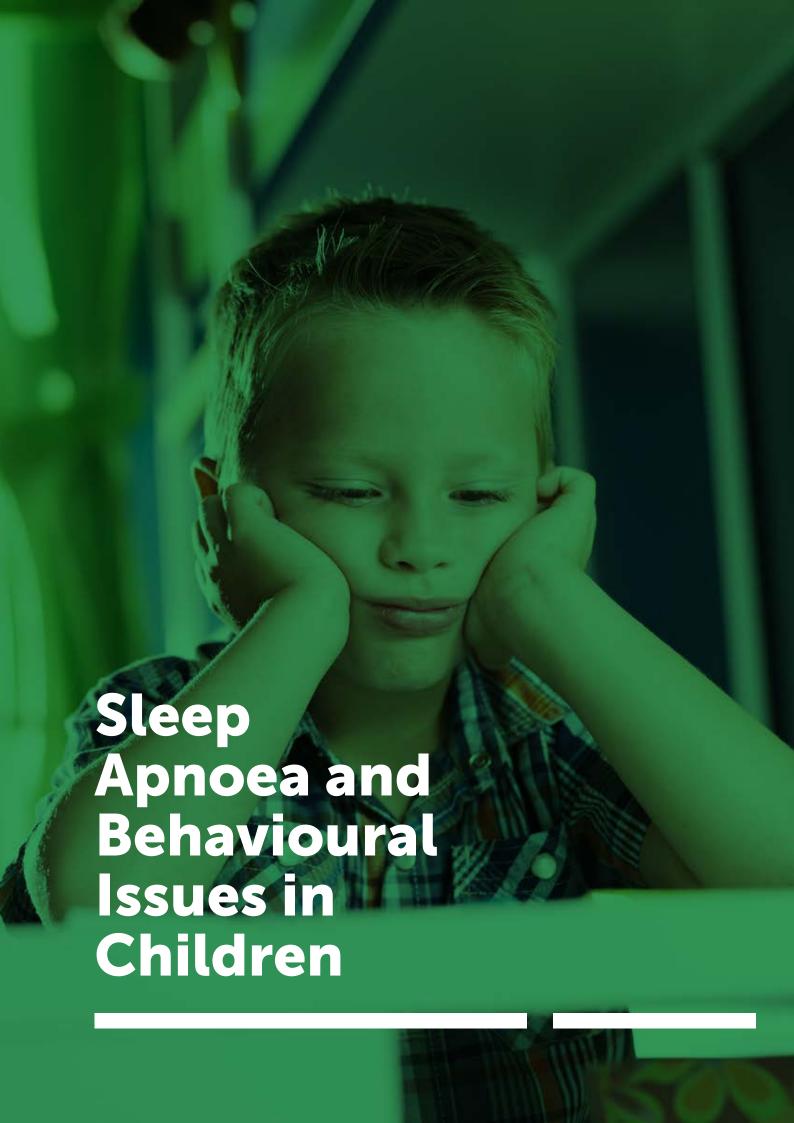
When left untreated, sleep apnoea can result in severe complications for children including:

- Delayed development
- Impaired intelligence
- Dysfunctions of the nervous system
- Memory loss
- Depression

- Decreased performance/learning problems
- Hyperactivity
- Aggressiveness
- Social Isolation

"TMJ dysfunctions can affect children of all ages but are known to occur more frequently in teens, especially girls."

"Sleep apnoea is undiagnosed in many cases with children. There is a 70% overlap between snoring and sleep apnoea in children."



# Sleep Apnoea and Behavioural Issues in Children

Sleep apnoea is a common sleep disorder that has been linked to elevated rates of ADHD diagnosed behavioural issues in children. The risk of having or developing behavioural issues as a result of sleep apnoea is four to five times higher. Children that suffer persistent sleep apnoea are six times more likely to have behavioural issues.

Behavioural consequences of sleep apnoea include:

- Hyperactivity
- Disruptive behaviours
- Aggressiveness
- Reduced freedom from distractibility
- Learning problems
- Social isolation

- Withdrawal
- Mood changes
- Memory loss
- Depression
- Communication issues
- Bedwetting

A recent A\_Current Affair\_report gives first hand accounts of young Australians who have battled with the condition.

# **Importance of Treatment**

Taking the risk to leave the sleep disorders untreated can significantly impair a child's interpersonal, vocational and cognitive skills, whilst also putting them at a greater risk of developing cardiovascular disease, obesity and diabetes.

For these reasons it is crucial that children who demonstrate signs of sleep disordered breathing be properly evaluated.



#### **TMD Treatment**

To treat TMD effectively, the first step is to see someone who is an expert in diagnosing the condition. This will generally involve the use of state-of-the-art x-rays, a range of motion testing, jaw tracking and other diagnostics.

Once the diagnosis is complete the practitioner will discuss the onset, duration and intensity of pain and will address any major stress or nutritional concerns you have. This process will help to fully understand your condition whilst also determining the most effective treatment plan, tailored to your individual requirements.

The good news for anyone suspected of suffering from TMD is that there are many proven research-based non-invasive treatments available.

Furthermore, if you have symptoms of TMD some valuable tips to reduce pain and further damage to the associated muscles include the following:

- Fat soft foods
- Try to use both sides of your mouth when chewing.
- Stop chewing gum
- Stop biting fingernails

and insides of cheeks

- Reduce stress triggers
- Refrain from opening your jaw wide when yawning or singing.

## **Sleep Apnoea Treatment**

By choosing to see a professional about your sleep disorder you will be taking the first step to a happier and healthier life.

The initial consultation will involve assessing the cause rather than the symptoms of the disorder, with many patients recommended to undergo a sleep study for a detailed evaluation of their sleep apnoea.

Once the cause is correctly identified the doctor will design a treatment plan specifically aimed at treating your sleep apnoea. This will involve improving the positioning of the jaw, head and neck in order to reduce or remove any pressure being placed on the airways.

Furthermore, if you have any sleep apnoea symptoms some valuable tips to reduce pain and get better sleep include:

- Reduce daily caffeine consumption.
- Turn off the computer/ television.
- Don't go to bed on a full stomach.
- Engage in regular exercise.

- Limit beverage consumption before bed.
- Keep your bedroom environment quiet and dark (using block out blinds and turning off all electronic devices with lights).

# Sleep Apnoea Sufferers are 6 times more likely to die in a car crash

The National Sleep Foundation



# Officially Certified from TMJ & Sleep Therapy Centres International

The TMJ & Sleep Therapy Centre Sydney is the leading authority on providing accurate diagnosis and tailored treatment plans for TMJ and sleep dysfunctions in Australia. Dr Louis Chan and our entire team are the only practitioners in Sydney licensed under TMJ & Sleep Therapy Centres International.

# TMJ & Sleep Therapy Centre Sydney

At TMJ & Sleep Therapy Centre Sydney you can expect a leading practice which provides comprehensive care, with a major focus on tailoring treatment plans to the needs of each individual patient. Our process begins with a thorough examination and diagnosis, allowing us to formulate the most effective non-invasive treatment plan available. Once diagnosed, we can start you on the path to successful results by using state-of-the-art technology and research-based treatments complemented by our unsurpassed attention to care, comfort and a friendly environment.

Our technique employs both a structural and functional approach providing treatment therapy to injured structures (TM joints) with custom-designed orthopedic appliances (orthotics) to rehabilitate and restore orthopedic function (chew, swallow,) as well as improve breathing and resolve symptoms.

The treatments we focus on are:

- TMJ dysfunctions
- Headaches
- Sleep apnoea
- Snoring

- Dental orthodontics
- Performance mouthwear





#### Meet Dr. Louis Chan

Dr Louis Chan has a special interest in holistic dentistry with a passion for orthodontics and TMJ treatment. Since 1998, he has continued to research best practices that are holistic and capable of helping both children and adults, with a focus on healthy body development and facial balance.

His passion to continually expand his knowledge has led him to pursue learning the latest medical approaches. He has undertaken courses in a variety of fields, including a world leading TMJ & Sleep Therapy mini-residency and hands-on course with leading medical expert Dr Steven Olmos. Dr Chan is a certified provider of Myobrace (MRC), InsigniaTM, Rapid Smiles and Invisalign.



#### Meet Dr. Jacob Smith

Dr Jacob Smith graduated with a Bachelor of Dental Surgery with Honours from the University of Sydney before beginning his medical journey as a Lieutenant in the Navy. During his time in the Australian Defence Force he was mentored in Endodontics, Prosthodontics and Periodontics, before progressing onto the fleet team where he spent time as the Acting Fleet Dental Surgeon.

After moving from the Navy, Dr Smith has worked in private practice where he has honed his skills in implant and restorative dentistry. To further his education, Dr Smith has completed a Post Graduate Diploma in Implant Dentistry from Charles Sturt University and Post Graduate Certificate in Aesthetic Dentistry from the prestigious Kings College in London. Since woking at TMJ and Sleep Therapy Centre Sydney, Dr Smith has developed an interest in holistic dentistry and has completed several mini-residencies in TMJ / Sleep and orthodontics.





# **Contact Us**



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