



**THORACIC &
SLEEP GROUP**
QUEENSLAND

Thoracic and Sleep Group (QLD) provides full state-of-the-art services for the diagnosis, treatment and long term management of all sleep and respiratory disorders.

Your doctor can refer to one of our specialists if you are concerned you have a sleep disorder.

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Sleep Health & the Mining Industry

Evaluating **Sleep Health** is now a compulsory part in some mining and occupational Health Assessments.

Effective and healthy sleep can significantly reduce work fatigue and improve safety in the workplace.

This brochure explains the importance of sleep health and occupational risk. We also show you how to diagnose, evaluate and treat this disorder successfully.

HOW DO I GET ASSESSED?

Screening with the Berlin Questionnaire

This can be performed with a medical examination by a Nominated Medical Advisor (NMA).

Screening with a Portable Sleep Study

You may have access to portable sleep investigation units which can screen for sleep apnoea, and the severity.

Formal Assessment with a Sleep Specialist

If the screening process proves you are likely to have significant sleep apnoea, you will be referred to a sleep centre for diagnostic testing.

Treatment

If sleep apnoea is confirmed, your specialist will discuss treatment options including CPAP therapy or a Mandibular Advancement Splint (MAS). Education should be provided on weight loss, smoking cessation and modifying other risk factors.

CPAP THERAPY

Continuous **P**ositive **A**irway **P**ressure is used to gently support and splint open the airway via with pressure delivered via a nasal or oronasal mask



This is highly effective treatment for sleep apnoea when prescribed correctly. New technology uses small, very quiet systems with 'smart' technology to measure control.

MANDIBULAR ADVANCEMENT SPLINTS

These devices are dental splints that keep the mandible (lower jaw) protruded during sleep. In milder cases of sleep apnoea this can help relieve obstruction.



People caring for how you *breathe and sleep.*

If your doctor requires a screening diagnostic sleep study this can be done at the following locations.

All sleep Centres Enquiries and Bookings
Ph 07 3870 1120 or 1800 119 446
Fax 07 3870 0233 Email admin@tsgq.com.au

The John Flynn Sleep Centre
John Flynn Private Hospital, Ward 6B
Level 6, 42 Inland Drive, Tugun Qld 4224

The Wesley Hospital Sleep Disorders Centre
The Wesley Hospital, Suite 2 & 3, level 9
Evan Thomson Building, 24 Chasely Street
Auchenflower Qld 4066

The Sunshine Coast Sleep Disorders Centre
Nambour Selangor Private Hospital
62 Netherton St, Nambour Qld 4560

www.thoracicanssleep.com.au



For more information visit
www.thoracicanssleep.com.au



SLEEP DISORDERS AND WORKPLACE RISK

The Thoracic and Sleep Group (QLD) are a group of Sleep Specialist Doctors, Scientists and Nurses highly trained in evaluating disorders of Sleep Health.

We are very aware of the dangers of sleepiness and fatigue on a mine site.

FATIGUE IN THE WORKPLACE

There are many factors contributing to fatigue, including:

- sleep loss (<6 hours sleep in 24 hours)
- long periods awake (> 17 hours)
- obstructive sleep apnoea (OSA)
- sustained mental or physical effort
- disruption to circadian rhythms
- inadequate rest breaks
- health and emotional issues
- shift workers

RISK FACTORS: OBSTRUCTIVE SLEEP APNOEA

OSA occurs in 15-18% of males, and 10-14 % of females.

Risk factors are include:

- being overweight, 50% incidence when BMI>40
- large neck circumference ('bull-neck')
- men >40 years
- family history (facial and neck anatomy) alcohol intake, smoking

OCCUPATIONAL RISKS OF SLEEP APNOEA

- decreased alertness and reaction time
- poor hand-eye coordination
- poor communication, higher error rates
- reduced decision-making ability
- poor judgement of performance, especially during complex tasks
- difficulty responding to emergencies
- loss of awareness of critical situations

OBSTRUCTIVE SLEEP APNOEA (OSA)

WHAT IS IT?

During sleep there is collapse and choking of the upper airway when 'soft tissue' relaxes. This causes breathing to be reduced or stop. No airflow for 10 seconds (or more) is called an 'apnoea'. This apnoea compromises airflow into the lungs, causing oxygen levels to drop.

Those affected can repeat this upper airway obstruction many times. In severe OSA the cycle repeats more than 30 times per hour (every 2 minutes) during sleep.

As a result, there is reduced oxygen delivery repeatedly to the body and to the brain during sleep. Over a prolonged period this causes physical, psychological and intellectual deterioration.

WHAT ARE THE SYMPTOMS?

- The signs and symptoms of OSA include:
- snoring, at times loud, with choking noises
- fragmented sleep, 'insomnia'
- waking up unrefreshed, groggy and fuzzy
- reduced daytime energy, motivation and endurance
- moodiness, irritability, anxiety, low mood
- falling asleep at work, including driving, or using machinery

SERIOUS HEALTH COMPLICATIONS

As OSA becomes more severe, and remains untreated, there are major health risks:

- Sudden death during death, 4-8x
- Blood pressure, 6-8x
- Heart attacks, heart arrhythmias and stroke, 4-6x
- Falling asleep driving, 6-8x increased
- Occupational accidents, 4-6x

SLEEP HEALTH IN THE MINING INDUSTRY

In 2011, the Coal Mining Health and Safety Advisory Committee endorsed the inclusion of sleep apnoea screening for any employee working in coal mining. OSA is a major risk factor in the safety of coal mines.

WHERE CAN I GET MORE INFORMATION?

You should speak to your Nominated Medical Advisor about how you will address this issue for yourself or your workers. The Health Surveillance Unit of the Department of Employment, Economic Development and Innovation (Formerly Dept of Mines and Energy) - **13 25 23** - can assist with the implementation timeframe. www.dme.qld.gov.au

Who will pay for the treatment?

The employee will have to pay for the treatment.

How can this testing and any necessary treatment be done without disrupting the work of the mine?

It is possible that a worker may not be able to do their normal job for a period of time. However many people are able to continue to do their normal job with no restrictions.

Some restrictions may be placed on the worker if further medical assessment is recommended.

What restrictions are likely to be placed on those who the NMA thinks are likely to have OSA?

The restrictions placed on a person will reflect the nature of the condition and the person's job. These restrictions cover the tasks (such as driving) where there are links between OSA and the likelihood of being at higher risk of a fatigue related incident.