SLEEP DISORDERS

Information about sleep disorders and where you can find help and support.

18TH EDITION

SLEEP DISORDERS AUSTRALIA

With compliments from Sleep Disorders Australia - Australia's peak patient advocacy organisation for sleep disorders.

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DISCLAIMER Information provided in this booklet is general in content and should not be seen as a substitute for professional medical advice. Concerns about sleep problems or other medical conditions should be discussed with your family doctor.

BECOME A MEMBER OF SLEEP DISORDERS AUSTRALIA

SDA does not receive funding; we rely on membership and fundraising, including donations to help fund our programs and resources. Your membership will help us to continue to advocate for the needs of people with sleep disorders and to provide information to the community through our resources and ongoing education and awareness programs. We would very much appreciate it if you would consider joining and/or making a charitable donation to SDA.

MEMBER ONLY BENEFITS:

- ✔ Updates on new and developing treatments of all sleep disorders
- ✔ Access to the '**Members Only**' area of the SDA website – **This includes access to the video recordings of all of the presentations at our Sleep Health & Wellbeing Expo.**
- ✔ Personalised support in your sleep disorder journey
- ✔ Bi-monthly Members Newsletter
- ✔ Product Giveaways
- ✔ Tips for good sleep health
- ✔ Latest research findings on specific sleep disorders which affect you
- ✔ New product information
- ✔ Invitations to participate in sleep surveys, trials and research
- ✔ Free advertising of your preloved CPAP equipment for sale

WHY JOIN US?

SDA is Australia's peak patient body for sleep disorders.

Your membership will help us continue to advocate for the needs of people with sleep disorders. Please join as a member and/or make a charitable donation to SDA.

To join please go to our website sleepoz.org.au. If you do not have access to the internet there is a membership form in the middle pages of this book.

LEARN MORE ABOUT SLEEP DISORDERS AUSTRALIA

TO JOIN SDA OR TO **MAKE A DONATION**

You can join SDA and donate via our **website sleepoz.org.au** *OR...*

Please send your cheque to
Sleep Disorders Australia
PO Box 5278, Algester Qld 4115

Direct Deposit
Sleep Disorders Australia
BSB 062 240
Account No. 10018178

PayPal treasurer@sleepoz.org.au

Please use your surname as the payment reference. SDA is endorsed by the ATO as an income tax exempt charity and has endorsement as a Deductible Gift Recipient. All donations $2 and over are tax deductible.

WE NEED VOLUNTEERS

SDA is a not for profit organisation which is run entirely by volunteers. If you have some relevant experience, some time to spare and would like to help make a difference in the lives of people with sleep disorders, please onsider volunteering with us.

We need people with a range of skills which could come from experience in the sleep medicine industry, committee or not for profit management, general administration, as well as graphic design and social media management.

All work can be done remotely, ie: you can work from home providing you have access to a reliable computer and internet. If you are interested, please contact us at: admin@sleepoz.org.au

SECOND HAND CPAP MACHINES

SDA's website is a popular platform for people to advertise their secondhand PAP machines and equipment for private sale.

CPAP machines are used in the treatment of Obstructive Sleep Apnea. There is a variety of machines available, including CPAP, APAP and VPAP. Many of those advertised are in excellent condition, having had minimal use.

If you don't want to spend the money on a new machine, or you need a compact machine for travel, you might find a solution here.

Please note: all secondhand PAP machines should be serviced and calibrated to your prescription by an authorised dealer before use.

EXCESSIVE DAYTIME SLEEPINESS – FINDING THE CAUSE

Excessive daytime sleepiness has a significant impact on quality of life. People with daytime sleepiness struggle with social, academic and work demands, they are at risk of motor vehicle and workplace accidents and generally have poorer health than comparable adults.

Accurate diagnosis is important, not only because of the negative impacts of sleepiness and its root causes on health and social function but because excessive sleepiness is generally remediable with appropriate treatment. The list of possible causes of excessive daytime sleepiness spans virtually every major area of medicine, neurology and psychiatry. A clear, detailed history is invaluable in negotiating these numerous diagnostic considerations.

Following is a list of known causes and routine tests to assist patients and doctors when considering the cause of excessive daytime sleepiness.

Please note: there are numerous possible causes, this is by no means a complete list. It is only intended as a guide to assist you and your doctor to find the cause of your excessive daytime sleepiness.

CAUSES OF DAYTIME SLEEPINESS	
Sleep Disorders	
Behavioural sleep deprivation	The most common cause of daytime sleepiness is insufficient sleep/ poor sleep hygiene.
Sleep-related breathing disorders	Sleep apnea. Residual sleepiness in treated obstructive sleep apnea. Upper Airway Resistance Syndrome.
Other sleep disorders	Includes circadian rhythm sleep disorders (Delayed Sleep Phase Syndrome, shift work disorder), REM Sleep Behaviour Disorder and other Parasomnias, Post-traumatic hypersomnia (following head trauma or illness) Insomnia, Narcolepsy and Idiopathic Hypersomnia. Also sleep-related movement disorders (Periodic Limb Movement Disorder, Restless Legs Syndrome).
Psychiatric	
Mental health conditions	Mental health conditions Including Depression, Anxiety, Bipolar Disorder.
Medication effects	Includes prescription, non-prescription, and drugs of abuse. *refer to list of medications on the right.
Medical conditions	
Including head trauma, stroke, cancer, inflammatory conditions, encephalitis, neurodegenerative conditions (eg: Parkinson Disease, myotonic dystrophy etc), Chronic Fatigue Syndrome, Fibromyalgia, Hypothyroidism (Hashimotos), Ehlers-Danlos Syndrome, Arnold-Chiari Malformation, Multiple Sclerosis. Other medical conditions that are associated with sleep fragmentation can result in daytime sleepiness, including: arthritis, spondylosis, chronic pain of any nature, nocturnal angina, epilepsy, asthma, chronic obstructive pulmonary disease, alcoholism, urinary dysfunction and gastrointestinal disorders (e.g. peptic ulcer disease), gastro-oesophageal reflux and irritable bowel syndrome	

Other considerations

Hypersomnia that develops after a viral infection including mononucleosis (glandular fever/ mono), or Guillain-Barre syndrome. Patients may experience fatigue and hypersomnolence and can sleep most of the 24-hour day. The outcome tends to be favourable; however, the resolution may take months or even years.

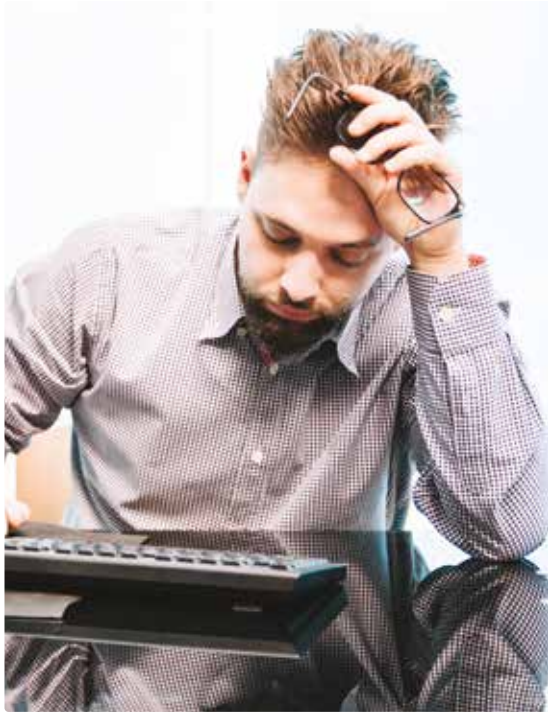
Long sleepers, also called “healthy hypersomniacs,” are people who require more sleep at night than normal. They may be misdiagnosed with idiopathic hypersomnia because of extremely long sleep episodes at night. These subjects are normally alert, however, once they have obtained their required amount of sleep.

MEDICATION CLASSES COMMONLY ASSOCIATED WITH DAYTIME SLEEPINESS

- Alpha-adrenergic blocking agents
- Anticonvulsants (e.g., hydantoins, succinimides)
- Antidepressants (monoamine oxidase inhibitors, tricyclics, selective serotonin reuptake inhibitors)
- Antidiarrhea agents
- Antiemetics
- Antihistamines
- Antimuscarinics and antispasmodics
- Antiparkinsonian agents
- Antipsychotics
- Antitussives
- Barbiturates
- Benzodiazepines, other - aminobutyric acid affecting agents, and other anxiolytics
- Beta-adrenergic blocking agents
- Genitourinary smooth muscle relaxants
- Opiate agonists and partial opiate agonists
- Skeletal muscle relaxants

ROUTINE TESTS TO CONSIDER FOR CAUSES OF DAYTIME SLEEPINESS

- Thyroid tests should include: TSH, Free T3 (FT3), Free T4 (FT4), Reverse T3 (rT3), and thyroid antibodies for Hashimoto's Thyroiditis
- Nutrient deficiencies including vitamin D (25-Hydroxy), B12 and serum folate, magnesium, zinc, iodine and selenium
- Iron studies: Iron, TIBC, %Sat, Ferritin
- Carnitine panel: free, total, esterified, esterified/free
- C-Reactive Protein
- Complete Blood Count
- Complete Metabolic Panel (glucose, sodium, creatinine, etc)
- Cortisol (preferably 8 am spot cortisol or 24-hr urinary cortisol)



SLEEP APNEA

Sleep apnea occurs when the airway in the throat collapses during sleep, reducing airflow or completely blocking the airway.

This disrupts their sleep and reduces oxygen supply to vital organs. Severe sleep apnea affects about 5% of adults. Mild to moderate forms occur in 20% of adults. Fortunately, effective treatments are available.

SYMPTOMS:

- Snoring, often loudly
- Breathing pauses, often followed by a deep gasp for air
- Restless Sleep
- Wake feeling unrefreshed despite adequate sleep duration
- Excessive daytime sleepiness
- Poor concentration and productivity
- Sore throat and/or dry mouth
- Chronic cough
- Heartburn / Reflux
- Lethargy
- Apathy
- Irritability / Poor mood regulation
- Depression
- Poor memory
- Loss of libido
- More frequent urination at night

Some symptoms are commonly not noticed by the person with sleep apnea but by their partner.

HOW IS SLEEP APNEA DIAGNOSED?

The only way to diagnose sleep apnea is with an overnight sleep study. This can be done in the privacy of your own home or in a sleep unit at a hospital. A sleep study monitors your sleep behaviour and collects data on your sleep quality. You will need a referral from your GP or Sleep Physician.

WHAT CAUSES SLEEP APNEA?

There are two types of sleep apnea: obstructive and central. Obstructive sleep apnea is much more common and is the result of obstruction or collapse of the airways. The obstruction is usually the result of a narrowed airway which becomes partially or completely blocked when the muscles around the airway relax during sleep. Central sleep apnea is rare and occurs when the signals from the brain to regulate breathing are disrupted.

WHO GETS SLEEP APNEA?

Sleep apnea can occur at any age. Childhood sleep apnea is commonly caused by enlarged tonsils or adenoids, cranio-facial abnormality or severe obesity. In adulthood, sleep apnea becomes more common in middle age and is more prevalent in men than women, although post-menopausal women may be at increased risk. Sleep apnea is often associated with being overweight, particularly with excess fatty tissue around the neck. In people who are not overweight, it is likely that they have been born with a narrow airway or facial structure which leads to a narrow airway. Almost everyone who has obstructive sleep apnea snores, as snoring is also the result of narrow or floppy upper airways.

HOW IS SLEEP APNEA TREATED?

The treatment of choice for severe sleep apnea is continuous positive airway pressure (CPAP). Other alternative treatments are available. (See pages 10-11 overleaf.)

ASSOCIATED RISKS:

Sleep apnea affects relationships. Snoring and apneas (stopping breathing) can be extremely irritating and disrupt the sleep of the bed partner. These problems can aggravate, or become a focus for, marital disharmony and family stress. It is made worse by the unexplained daytime sleepiness and other associated symptoms of the person with sleep apnea.

Other health risks

There is strong evidence that people with moderate to severe sleep apnea die prematurely. You are more likely to have cardiovascular disease than someone without sleep apnea. Toward the end of each apnea cycle, blood pressure may rise substantially and your heartbeat may become irregular. This may lead to high blood pressure (hypertension) or Atrial Fibrillation. If you are overweight, you may also be at risk of diabetes and have high cholesterol. These risk factors combined, result in an increased risk of heart attack and stroke.

Obesity

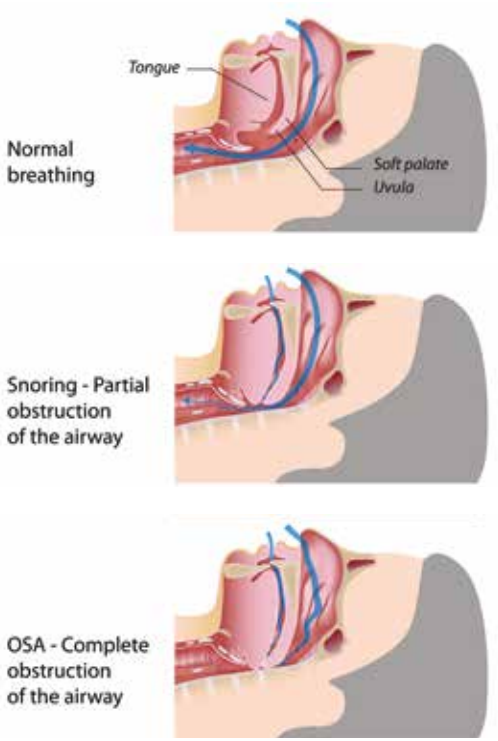
In many people, sleep apnea occurs or is exacerbated by being overweight. If this is the case, losing weight may help or even cure the condition but before stopping CPAP treatment you should consult your sleep physician. In any case, losing weight may be the most important thing that you can do to reduce cardiovascular disease such as high blood pressure and diabetes.

DRIVING & MACHINERY OPERATING RISKS:

Research has shown that people with untreated sleep apnea are 4 times more likely to have a motor vehicle accident. Their performance is noticeably worse as the disrupted sleep leads to a reduced ability to concentrate, slower reflexes and an increased chance of falling asleep at the wheel. When sleep apnea occurs in people who have occupations involving operating machinery or transport, this can be a lethal combination. Sleep apnea is a reportable medical condition to your state licensing authority.

THINGS TO AVOID IF YOU HAVE SLEEP APNEA.

Some things make sleep apnea worse, even if you are on CPAP treatment, and should therefore be avoided. Alcohol relaxes muscles which can result in increased apneas. Also sleeping tablets, which depress the drive to breathe. It is advisable to try to maintain a regular sleeping pattern. Other things which disrupt sleep are caffeine and eating late at night, so these should also be avoided.



TREATMENTS FOR SLEEP APNEA

CONTINUOUS POSITIVE AIRWAY PRESSURE (CPAP)

If you suffer from moderate-severe sleep apnea, Continuous Positive Airway Pressure (CPAP) is the most successful treatment. CPAP is a mechanical aid to help keep the airway open. It prevents the airway closing by blowing air through the nose and into the upper airways, a bit like blowing up a bicycle inner tube that has deflated. This pressure is applied continuously throughout the night to keep the airways open. The airflow is generated by a pump or blower that is small, quiet and extremely reliable.

CPAP machine prescriptions must be prescribed by your Sleep Physician after an overnight sleep study to determine how much pressure you require (CPAP Titration Study). CPAP and its alternatives (APAP, VPAP etc) can then be purchased from specialist retailers.

How is the pressure applied to the airway? CPAP delivers pressure to the airways via a soft mask which fits over your nose or nose and mouth (for mouth breathers). Getting a good mask fit is criitical to effective CPAP treatment so it's imprtant to persist until you find the best fit for your face.

How long does CPAP take to work? CPAP works immediately in stopping your sleep apnea. Some people notice immediate improvement in their daytime symptoms, such as tiredness, but others find it takes some time to get used to CPAP and gain maximum benefit. If you feel that your CPAP is not working effectively you should return to your sleep specialist and get help.

Do I need to use CPAP all night? Unfortunately CPAP does not cure sleep apnea; it simply controls the symptoms by keeping the airway open. When you stop using CPAP your apnea will return, as will your symptoms. Recent studies show that the more you use it, the more benefit you gain.

What is humidification? Most CPAP machines have an optional humidifier, which warms and adds moisture to the air. This makes breathing more comfortable for many people and can help to prevent mouth leaks.

OTHER TREATMENT OPTIONS

While CPAP is the most effective treatment for patients with moderate-severe sleep apnea, it is not well-tolerated by everyone. There are alternative treatment options, including: oral appliances; surgery to the airway; nasal vents; and positional therapy. Oral appliances effectively reduce the severity of sleep apnea and are generally the first-line treatment option for mild-moderate sleep apnea.

It is very important that any treatment you undertake is supervised by a sleep physician and, if necessary, that a repeat sleep study is conducted to monitor the effectiveness of your chosen treatment.

ORAL APPLIANCES

Oral appliances are also called mandibular advancement splints (MAS) or mandibular advancement devices (MAD). They are worn only while sleeping. They look similar to a mouthguard, fitted to both the top and bottom teeth. They gently hold the lower jaw forward which helps open the airway by repositioning the tongue further forward. They fit completely within the mouth. MAS are made to precise measurements of your mouth and jaw by a dentist experienced in Dental Sleep Medicine. This generally requires an impression of your teeth to be taken before it is customized for you. The MAS is adjusted to slowly bring the lower jaw forward and thereby reduce the sleep apnea, without causing tooth and jaw discomfort. Private Health Rebates are available with Dental Extras.

Is it comfortable? Yes! A properly fitted MAS should not cause discomfort to your teeth, gums or jaw. Most people it is both more comfortable and more convenient than CPAP.

Beware of cheaper 'boil and bite' over the counter or online products. These should be avoided as they can cause long term gum, tooth and jaw problems. They also cannot advance your jaw far enough forward to be effective in opening the airway. Always choose a custom, made to measure appliance prescribed by an experienced dentist trained in Dental Sleep Medicine.

Oral Appliances work best:

- If your sleep is mild or moderate in severity.
- If your sleep is better on your side than your back.
- If you have a lower jaw that tends to recede.
- If you have a good amount of lower jaw movement.
- If you are in a healthy weight range.

If you have central sleep apnea (more common in people with heart failure or a stroke), a MAS will almost certainly *not work*. Seek advice from your sleep specialist.

APPLICATION FOR MEMBERSHIP

The best way to join SDA is via our website, **sleepoz.org.au**. Alternatively, you can complete this form and return it to either: membership@sleepoz.org.au or Sleep Disorders Australia, PO Box 5278, Algester Qld 4115

FIRST NAME: SURNAME:

ADDRESS:

STATE: POSTCODE:

PHONE:

OCCUPATION: DOB:

*An email address is required to become an SDA member.

*EMAIL:

As a member, I agree to be bound by the Constitution of Sleep Disorders Australia (view at https://www.sleepoz.org.au/about).

SIGNATURE: DATE:

MEMBERSHIP FEES (GST INCLUDED)		
One Year Subscription	$30	$
Three Year Subscription	$80	$
Five Year Subscription	$134	$
DONATION – I would like to make a donation to assist the work of Sleep Disorders Australia		$
All donations of $2.00 and over are tax deductible	**TOTAL PAYMENT**	**$**

PAYMENT DETAILS I enclose my Cheque/Money Order OR debit my credit card for the amount shown.

Details of my credit card are: ❑ MasterCard ❑ Visa

Card Number | Expiry Date | CVV

																/			

SIGNATURE: **CARDHOLDER'S NAME:**

BANK DETAILS FOR DIRECT DEPOSIT:
CBA: BSB: 062-240 Account No: 10018178
Please use your surname as the payment reference

PAYPAL:
treasurer@sleepoz.org.au

☑ Areas of Interest:

- ☐ Obstructive Sleep Apnea
- ☐ Central Sleep Apnea
- ☐ Insomnia
- ☐ Narcolepsy
- ☐ Idiopathic Hypersomnia
- ☐ Restless Legs Syndrome
- ☐ Circadian Rhythm Disorders
- ☐ REM Sleep Behaviour Disorder
- ☐ Non-REM Parasomnias (eg; sleepwalking, night terrors)
- ☐ General Sleep Health

☑ I can volunteer my time in:

- ☐ Sleep Apnea
- ☐ RLS
- ☐ Administration
- ☐ Seminars/Workshops
- ☐ Fundraising
- ☐ Education
- ☐ Social Media
- ☐ Committee Work
- ☐ Sleep Disorders
- ☐ Other_____

Send me an Annual Report: Yes No

Notify me of the Annual Members Meeting: Yes No

INSOMNIA

Insomnia is a common and distressing difficulty in falling asleep, going back to sleep, or waking too early.

Causes of Insomnia. There are many different causes of insomnia. Some medical conditions may cause insomnia, particularly pain, chronic respiratory problems, or other sleep disorders. Some medications such as blood pressure tablets or asthma medication, as well as substances like caffeine (coffee), nicotine (smoking) and alcohol, may trigger insomnia or make it worse. Psychiatric conditions such as depression and anxiety are common in insomnia and may cause insomnia. Other precipitating factors for insomnia include illness, loss, death of a family member/friend, financial stresses, and work and relationship issues. Even when these triggers are no longer present or reduced at least to some extent, the insomnia can continue. Insomnia can be a vicious cycle, in that the more you worry about not sleeping, the harder it is to get to sleep.

Insomnia Treatments. Just as there are many causes for insomnia, there are many treatments. In most people, the insomnia will get better by itself. If insomnia persists, the best treatment is Cognitive Behaviour Therapy (CBT) provided either individually or in a group by a psychologist or even-on line through specific programs. A psychologist can help you to re-schedule your sleep and wake times, improve your sleep habits, improve stress management, and control unwanted thoughts and worries about your sleep. Information and education about sleep habits and expectations form part of most CBT programs.

The main goal of any treatment for insomnia is to break the vicious cycle that keeps the insomnia going. Attention to simple things such as getting up at the same time, going to bed only when sleepy and comfortable, reducing caffeine and alcohol, getting enough exercise, minimizing light exposure and having some fun can help you to sleep. Ask your GP for a referral to a psychologist. A certain number of sessions with a sleep psychologist are subsidised by Medicare.

Cognitive Behavioural Therapy (CBT) Treatment is about making both behavioural (doing) and cognitive (thinking) changes to your life and sleep. They are not easy but they work! TRY:

- Reducing the time you spend in bed. Many people compensate for poor sleep by spending more time in bed, to give themselves more time to fall asleep or go back to sleep. Unfortunately, this behaviour leads to even worse sleep. Choose and keep the same getting up time no matter what your sleep has been like the night before – this will help to re set your brain clock on a daily basis.
- Getting up and going to another room if you are unable to go to sleep or go back to sleep within around 15 minutes. Read or listen to music in dim light. When you are feeling less tense and more comfortable go back to bed and see if you can "let go" and let sleep happen. You MAY need to do this a number of times a night and for a number of nights to get your sleep back into a better pattern. Then let bed be a place where you go to when you are feeling comfortable and sleepy not a place where you are trying hard to go to sleep or are awake tossing and turning and worrying.
- If there is an underlying medical condition that is contributing to the insomnia get help from your GP to address it so that you can work on the behavioural and/or psychological cause/s. You may need a referral to a sleep psychologist to help you do this. Psychological assistance with stress management, relaxation and controlling thoughts are key factors in "retraining in sleep" as can attention to simple environmental factors (comfortable mattress, being too hot, too cold, wearing earplugs because of noise). Information and education about sleep and expectations about sleep will help you to understand what you can do yourself to improve your sleep. Collectively these factors outlined help in promoting healthy sleep. Recent research has shown that these treatments together increase deep sleep more than sleeping tablets alone.

Sleeping Medication. Sleeping tablets may be prescribed for short-term insomnia but may lose their effect after a few weeks. Stopping sleeping medication may result in a few nights of much worse sleep which is called rebound insomnia. It is therefore better to gradually reduce sleeping tablet use rather than stop abruptly. Make sure the risks and benefits of sleeping medications are fully discussed wth your doctor.

Starting Treatment. See your family doctor first to discuss your sleeping difficulties.

Your doctor can then undertake a proper assessment, initiate treatment or refer you to a sleep disorders clinics, sleep specialist or to a sleep psychologist.

ADJUSTA MATTRESS
ITS NOT JUST A MATTRESS ITS AN ADJUSTA MATTRESS
CHECK OUT OUR FACEBOOK PAGE ✓ Feedback ✓ Photos ✓ Updates

OUR CUSTOMERS HAVE FOUND RELIEF FROM THE FOLLOWING:
• Fatigue • Broken Sleep • Asthma • Anxiety
• Sciatica • Restless Legs • Back Pain
• Minor Aches & Pains • Poor Blood Circulation
• Arthritic Pain • Sleep Apnoea • Reflux

CAN WE HELP YOU TOO???
Get in touch with one of our experienced sleep consultants today to find out how
P: 1300 2 ADJUST (1300 223 587)
E: info@adjustamattress.com.au W: www.adjustamattress.com.au

Testimonial: *"We are so glad we bought this bed for the Caravan as I was getting very sore, swollen and tired legs. My husband found great relief in his legs after driving all day and we both slept better. I find when I put my bed back into flat position it seems to stretch out my spine and it feels great." Maria, VIC*

SLEEP HYGIENE

What is Sleep Hygiene and why does it matter?
Sleep hygiene (also known as 'healthy sleep practices') describes a range of behaviours, lifestyle and environmental factors that can improve sleep. Sleep hygiene is useful in improving sleep quantity and quality for healthy individuals across all ages and can be used as part of management plans for some sleep disorders.

There are nine key components of sleep hygiene. Some of these may be familiar to you or may even seem like common sense. Even if sleep hygiene practices sound straightforward, implementing these as part of your daily sleep routine can make a big difference to your sleep.

1. REGULAR SLEEP SCHEDULE

A regular sleep schedule means going to bed and waking up at roughly the same time each day, while aiming for 7-9 hours sleep (for adults).

Your body clock controls your internal 24-hour cycles, known as your circadian rhythm. Your body clock is responsible for telling you when it's time to be awake and alert, and when it's time to relax and sleep. This system thrives on routine, because it allows the body clock to continue running on a 24-hour cycle while controlling a lot of complex processes behind the scenes in the meantime. If you are constantly changing your bedtime, your circadian system may struggle to adjust. Maintaining a regular sleep schedule helps your body to maintain a regular 24-hour sleep/wake cycle, which in turn, will help you get longer, better quality sleep.

What can I do to maintain a regular sleep schedule?

- Go to bed and get up at roughly the same time each day. For example, go to bed at 9pm and wake up at 6am for as many days as possible, which allows enough time to get your 7-9h sleep.
- Sometimes life will get in the way of your routine, which is ok! Try to stick to your schedule as much as possible.
- Some people, like shift workers or parents of new-born babies, may not be able to maintain a regular sleep schedule. Instead, try to incorporate as many of the other sleep hygiene practices into your routine.

2. DAYTIME NAPPING

All of us have enjoyed an afternoon nap, particularly if we haven't been sleeping well. Here are some tips and tricks to ensure that napping during the day doesn't end up impacting your night-time sleep.

While it's important to get enough sleep, having a nap at the wrong time of day may end up disrupting your sleep that night. This may leave you wide awake, or tossing and turning throughout the night, making you more tired the following day.

What can I do about daytime napping?

If you need to have a daytime nap, stick to the following:

- Aim to have your nap between late morning and early afternoon, ideally no later than 3pm. The later it is in the day, the more likely your nap will impact your night-time sleep.
- Nap for no more than 20-30 minutes, so you're less likely to enter a deep sleep. Any longer and you may feel groggy when you wake up.
- Make the most of your nap by keeping your sleep environment quiet, dark, cool, and as relaxing as possible.

3. DIET

We all know that eating a healthy diet is important for maintaining our health, but we rarely think about our diet in terms of our sleep, even though they can impact each other.

Research has shown that people who don't get enough good quality sleep are more likely to consume foods that are high in fat and sugar, be overweight or obese, and develop conditions like diabetes. This may be because when we're tired, we reach for comforting, high-energy foods to boost our mood and energy levels. It's not only about what you eat, but when you eat as well. Eating too close to bedtime can increase the chance of indigestion during the night, while eating a large meal during the night can further impact your sleep quality.

What can I do about my diet?

- Aim to eat a balanced diet and avoid foods with high amounts of sugar, caffeine, or fat directly before bedtime while giving your body enough time to digest food (ideally 2-3h) before lying down.

4. EXERCISE

Similar to eating a balanced diet, being physically active can improve many aspects of health and wellbeing, including sleep.

Physical activity is good for our health but finding the time to exercise can be difficult. Exercise can improve your risk of heart disease, strengthen bones and muscles, and improve your mental health and mood. In terms of our sleep, exercise can influence both sleep quality and quantity.

What can I do about exercising?

- Be mindful of how much you're moving and aim to get 20-30 minutes of moderate-vigorous physical activity each day (for adults). Aim for a combination of both aerobic (e.g., walking, running, swimming) and resistance (e.g., weight lifting, pilates) forms of activity.
- Small changes to general activities can increase your daily activity, such as parking your car further away and walking the extra distance, taking a few flights of stairs instead of the lift, or scheduling work breaks to stand up from your desk and move around.
- You don't have to avoid exercise later in the day, as recent research has shown that it does not impact your ability to fall asleep or your sleep quality in the ways we once thought it did.

5. CAFFEINE

Caffeine is a natural stimulant found in a wide range of foods and beverages, including coffee, tea, chocolate, soft drinks, and energy drinks. Caffeine is the most consumed stimulant substance in the world, and because of its energising effects it can significantly impact on your sleep.

Caffeine is absorbed into your bloodstream within 30-60 minutes of consumption, leading to the release of a range of chemicals that improve your mood, energy levels, and general feelings of wellbeing. Importantly, the stimulating effects can last for several hours, which means that caffeine can impact your sleep for a while after you ingest it. Caffeine may increase the time it takes to fall asleep, decrease your length of sleep, and cause you to wake more frequently during the night. So, if you're going to consume caffeine, it's important to do it in a way that won't disturb your sleep.

What can I do about my caffeine intake?

- Healthy adults should have no more than 400mg of caffeine each day, which is about the same as two cups of coffee, three to four cups of tea, or one 500ml energy drink.
- Limit your caffeine consumption later in the day, ideally avoiding all caffeine in the 4-6 hours before bed. If you enjoy a tea, coffee, or soft drink in the afternoon or evening, switch to a decaffeinated and low-sugar version.

6. NICOTINE

Similar to caffeine, nicotine in also a stimulant. Found in tobacco, nicotine is consumed through smoking cigarettes or pipes, chewing tobacco, and certain e-cigarettes, and can have a significant impact on your sleep.

Nicotine has a stimulating effect on your body and can reach your brain in less than

SLEEP HYGIENE CONT

10 seconds after being consumed. Nicotine activates certain nerve pathways leading to increases in heart rate and blood pressure, spikes in blood sugar levels, and the release of dopamine (a 'feel-good' hormone). People who regularly consume nicotine may have disturbed sleep because they experience withdrawals during the night which can impact brain activity.

What can I do about my nicotine consumption?

- Try to avoid nicotine-containing products all together, as it increases your risk of developing a wide range of health problems.
- If you do consume nicotine, limit it in the 6 hours before bed. This will give your body the chance to process the nicotine and reduce the negative effects it may have on your sleep.

7. ALCOHOL

Alcohol is a naturally occurring substance released during the fermentation of certain fruits, vegetables and grains. Consumed either for its relaxing effects or taste, most adults will drink alcohol at some point during their lives. Small amounts of alcohol can be consumed safely, however, alcohol can have significant effects on sleep.

When consumed, alcohol travels throughout the body, slowing down the central nervous system, causing the well-known relaxation effects. Indeed, some people consume alcohol to help them relax, and some research does show that people fall asleep quicker following alcohol consumption. However, sleep may be very disturbed for the rest of the night, leading to poorer quality sleep and more sleepiness the next day. This is just one of the reasons you may experience a hangover.

What can I do about my alcohol consumption?

- Consider the amount of alcohol you're consuming, keeping in mind it is recommended that healthy adults should consume no more than four standard drinks on any one day, and no more than ten standard drinks per week.
- Consider the timing of your alcohol consumption, as it takes several hours for your body to process each drink, so try to limit your alcohol consumption in the four hours before bed.

8. BEDTIME ACTIVITIES

How you spend your time before bed can impact the quality of your sleep. It's important to be mindful of your activities in the 1-2 hours before sleep.

Everything we do sends messages to our brain about our level of activity and how we need to respond to the environment around us. This is the case right up until you fall asleep at night. It's important that you're sending the right signals to your brain to prepare yourself for sleep. If you're doing something that requires you to be alert or concentrate at bedtime, you may find it more difficult to fall asleep. It is also important to think about the use of electronic devices at bedtime. The screens of televisions, computers, tablets, and mobile phones emit 'blue light' which imitates sunlight and can trick our brain into thinking it's daytime.

What can I do about my bedtime activities?

- In the 1-2 hours before bed, avoid engaging in anything that requires too much alertness and concentration, like working or studying.
- Limit your exposure to 'blue light' from your television, phone, and computer screens in the 1-2 hours before bed. If you can't avoid exposure, perhaps due to work requirements, consider investing in some 'blue light'-blocking glasses, or change the settings on your screens to warmer tones.
- Remember that the only activities that should take place in bed are sleep, sex, or relaxation such as meditation or reading.

9. BEDROOM ENVIRONMENT

Your bedroom environment can have a big impact on your sleep, but certain factors can be controlled to make sure you have the best sleep possible.

Sleep is controlled by a range of complex processes which function best under certain conditions. The human body is designed to sleep during night-time hours, when it is dark, cool, and quiet. Due to our modern lifestyles, these conditions may not always be met, which can interrupt your sleep, causing more awakenings, and leaving you feeling less rested the next day.

What can I do about my bedroom environment?

- Make sure your bedroom is as dark as possible. Window furnishings (e.g., block-out blinds/curtains), and covering any sources of light in can help. Eye masks are another option if making changes to your bedroom isn't possible.
- Block out as much noise as possible. Try closing all doors and windows in your bedroom or using comfortable ear plugs.
- Make sure your bedroom is cool and well-ventilated. Ideally, your bedroom should be around 18°C, with air conditioning and/or fans being helpful. If you can't control the temperature try to avoid wearing heavy layers to bed and invest in high-quality bed linen which can improve temperature regulation and air flow.

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CIRCADIAN RHYTHM DISORDERS

Circadian Rhythm Sleep Disorders are a group of sleep disorders that affect the timing of sleep, characterised by an inability to sleep and/or wake at normal or appropriate times due to the dictates of the individual's biological or circadian clock.

People with circadian rhythm sleep disorders are therefore unable to sleep and wake at the times required for normal work, school, and social needs, which can severely impact their quality of life.

CIRCADIAN RHYTHM SLEEP DISORDERS INCLUDE:

Advanced Sleep-Wake Phase Syndrome - ASPS

Advanced sleep-wake phase syndrome involves a shift in the circadian rhythm that leads to a strong, sometimes irresistible need to fall asleep in the early evening, generally between 6 p.m. and 9 p.m., and wake up very early in the morning, generally between 2 a.m. and 5 a.m.

Delayed Sleep Phase Syndrome - DSPS:

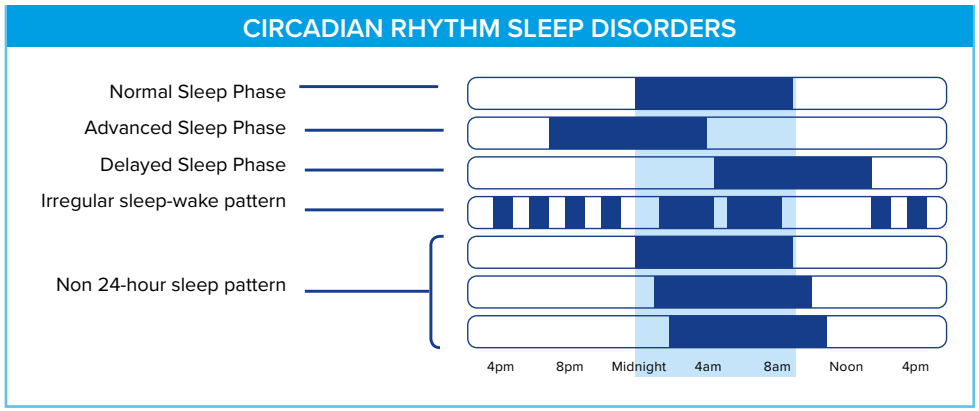
Delayed Sleep Phase Syndrome involves a shift in the circadian rhythm that is opposite to ASPS. People with DSPS are unable to fall asleep until very late at night and not wake up until much later in the day.

Irregular sleep–wake rhythm

Irregular sleep–wake rhythm is a rare form of circadian rhythm sleep disorder. It is characterised by numerous naps throughout a 24-hour period, no one main sleep episode that occurs at any time of day and irregularity from day to day. During the day, it may seem like they are sleepy because they nap so much. During the night, it may seem like they have insomnia because they are awake for long periods of time during the night. The total time asleep per 24 hours is normal for the person's age.

Non-24-hour Sleep-Wake Disorder

The sleep time of people who have Non-24-Hour Sleep-Wake Disorder shifts a little later every day. Sleep time and wake up time continue to move later and later every day. Every day, morning light and other behaviors reset the sleep-wake clock to a 24 hour schedule. Without light or if there is a fault with this clock resetting, people's sleep time will drift later and later. This is why many people who have Non-24-Hour Sleep-Wake Disorder are blind.



RESTLESS LEGS SYNDROME

RLS, also called Willis-Ekbom Disease, is a neurological movement disorder characterised by uncomfortable sensations in the legs or sometimes the arms, that results in the compelling urge to move the affected limbs. It occurs in both genders, however if is more common in women. Symptoms can begin at any age, but are more common and more severe in older people. As many as 7-10% of the population are affected, with varying degrees of intensity. Up to 40% of women will experience RSL symptoms during pregnancy. There is no test for RLS, and there is usually nothing abnormal for a doctor to detect on examination.

Symptoms

People with RLS describe an irresistible urge to move the legs when the sensations occur. Usually, moving the legs, walking, rubbing or massaging the legs, or doing knee bends can bring relief, at least briefly. If the legs are not moved, they can twitch/jerk involuntarily. Symptoms are usually worse in the evening and may make falling asleep very difficult, a condition called Sleep Onset Insomnia. If sufferers do manage to fall asleep, leg movements may lead to frequent awakenings, a sense of insomnia and as a result they have unrefreshing sleep. It is easy to see why RLS sufferers complain of irritability, anxiety, and depression.

How do I know if I have RLS?

- You have a strong urge to move your legs when sensations of crawling or tingling occur.
- Your symptoms occur when you are at rest, such as sitting or lying down.
- Your symptoms decrease when you move or massage the affected limbs.
- Symptoms are worse in the evening or when trying to sleep.
- Symptoms are not attributed to another medical condition like, nocturnal leg cramps, arthritis, peripheral neuropathy.

The cause is generally unknown, however, certain factors may be associated:-

- RLS may be hereditary. There is 30-50% greater chance that you will develop RLS if your ancestors had it.
- RLS may occur during pregnancy, especially during the final trimester. The symptoms usually disappear after delivery.
- Low iron levels or anaemia may worsen symptoms. Low iron in the brain has been linked to RLS.
- Chronic diseases may lead to RLS, particularly kidney failure. Other diseases such as diabetes, rheumatoid arthritis, Parkinson's disease or damage to the nerves of the arms, hands, legs, or feet (i.e. peripheral neuropathy) may also be associated with RLS.
- High caffeine (coffee), sugar, alcohol intake and smoking may make RLS worse.
- Attention deficit hyperactivity disorder (ADHD) is common in children and adults with RLS.

Treatments If a cause such as anaemia can be identified, treating this may resolve the RLS. Otherwise, in mild cases, some people find that activities such as taking a hot bath, massaging the legs, using heat pads or ice packs, exercising, and eliminating caffeine help to alleviate symptoms. In more severe cases, medications are prescribed. Unfortunately, no one drug is effective for everyone with RLS, and a medication that is initially effective may lose its effectiveness with prolonged use. Symptoms tend to get worse over time, and it may be necessary to change medications to keep symptoms under control.

If you have concerns about RLS, you should discuss them with your family doctor.

Please note: Restless Legs Syndrome is not the same as Periodic Limb Movement Disorder (PLMD) for information on PLMD please go to our website https://www.sleepoz.org.au/factsheets

NARCOLEPSY

Narcolepsy is a chronic and incurable neurological disorder that impairs the brain's ability to regulate the sleep-wake cycle. While symptoms often start in childhood and adolescence, it can occur at any age,in any gender and with no previous history of narcolepsy in the family. Due to low awareness (even among health professionals), and misperceptions, it usually takes several years for people with narcolepsy to receive a diagnosis while even more are currently undiagnosed or misdiagnosed. This also makes it difficult to provide an exact number for people living with narcolepsy, but it is estimated to be 1 in 2000.

SYMPTOMS

While not all symptoms are experienced by or in the same way in people with narcolepsy, the main symptoms are:

- Excessive Daytime Sleepiness: People with narcolepsy encounter extreme sleepiness during the day and regardless of how much they sleep, never feel refreshed or recharged.
- Cataplexy: Episodes of muscle weakness usually triggered by strong emotions such as happiness, laughter, surprise, or anger, but can also be triggered by stress, exhaustion, over stimulation, or feeling anxious or overwhelmed. The severity and duration of cataplexy episodes varies among individuals. Some may feel their head nod, jaw slacken, or their knees buckle momentarily, while others may have a full body collapse. During a full body collapse the individual is fully conscious however they are unable to move, speak or open their eyes. While these episodes generally last a few seconds to a few minutes, they can last much longer (Status Cataplecticus). They can be very scary for the individual and depending on their surroundings, they can also be extremely vulnerable.
- Sleep Paralysis: The individual is unable to move for a few seconds or minutes, usually upon falling asleep or waking up.
- Hallucinations: People with narcolepsy can have visual, auditory, or tactile hallucinations which can occur upon falling asleep (hypnagogic) or waking up (hypnopompic). They can be both frightening and confusing.
- Disturbed sleep and Vivid Dreams: Because the sleep-wake cycle is different for people with narcolepsy, they may struggle to stay awake during the day but then also struggle to go to sleep and stay asleep at night. Individuals will often wake up multiple times during the night due to things like insomnia, vivid-dreams, and restless legs.

WHAT CAUSES NARCOLEPSY?

Scientists believe that Type 1 Narcolepsy (Narcolepsy with cataplexy) is caused by a lack of the chemical known as hypocretin (also referred to as orexin) in the brain. Hypocretin is an important chemical for regulating wakefulness and rapid eye movement (REM) sleep. Type 2 Narcolepsy (without cataplexy) includes some of the same symptoms as Type 1 Narcolepsy, however, its cause is unknown.

HOW IS NARCOLEPSY DIAGNOSED?

Diagnosis for narcolepsy usually includes a 24-hour full sleep study which records the patient's brain waves.The sleep study is comprised of two parts, a polysomnogram (PSG), which is the night-time component and a multiple sleep latency test (MSLT), which is the day time component where the patient is required to attempt to sleep at two hourly intervals throughout the day. The results of the sleep study combined with other medical tests and a comprehensive medical history help doctors determine whether a patient has narcolepsy.

HOW IS NARCOLEPSY TREATED?

There is no cure for narcolepsy, however some of the symptoms can be managed with medicines and lifestyle changes. It may take some time to find the best treatment as not all medicines and lifestyle changes are appropriate for everyone.

IDIOPATHIC HYPERSOMNIA

Idiopathic Hypersomnia (IH), sometimes referred to as Idiopathic Hypersomnolence, is a neurological sleep/wake disorder characterised by excessive sleep and daytime sleepiness. It is a debilitating condition often profoundly affecting work, education and relationships.

Most people can feel tired, fatigued and at times, excessively sleepy, particularly when they do not get enough sleep. However what sets people with IH apart, is that they experience extreme sleepiness despite getting adequate, or typically more than adequate, hours of sleep. Their sleep may be deep and uninterrupted, but it is not refreshing. Despite extraordinary amounts of good quality sleep people with IH are in an almost constant state of sleepiness.

SYMPTOMS

The main symptom of IH is excessive deep sleep. Despite adequate and often extraordinary amounts of good quality sleep (eg: 11 hours or more per night) people with IH still feel excessively sleepy during the day. Other symptoms typically include:

- Chronic excessive daytime sleepiness often resulting in long daytime naps.
- Long and unrefreshing naps. Naps are usually more than one hour long and are typically not refreshing.
- Extreme and prolonged difficulty awakening from sleep, confusion, disorientation, irritability and poor coordination, with an uncontrollable desire to go back to sleep. It can also be accompanied by automatic behaviour (performing tasks without consciously knowing it and not remembering you have done them eg: turning off alarm clocks or answering your phone). This is clinically known as "sleep drunkenness".
- Cognitive dysfunction (commonly referred to as 'brain fog'): problems with memory, automatic behaviour, concentration and attention.

Unlike in other sleep disorders, the sleep in patients with Idiopathic Hypersomnia is normal; there are no disturbances that can account for these symptoms.

DIAGNOSIS

Diagnosing IH can be difficult as excessive daytime sleepiness can be caused by various disorders and/or conditions as well as numerous medications. A physical examination, medical tests and a comprehensive medical history are necessary to rule out all other possible causes, including insufficient sleep. Sleep studies involving a Polysomnography (PSG) followed immediately by a Multiple Sleep Latency Test (MSLT) are also carried out to exclude other sleep disorders such as sleep apnea. The sleep patterns during a sleep study in patients with Idiopathic Hypersomnia are normal.

TREATMENT AND MANAGEMENT

There are no medications specifically for Idiopathic Hypersomnia. Medications used to treat Narcolepsy, including stimulants and wake-promoting medications, are prescribed to counter the daytime sleepiness, however there are no medications currently available that assist with cognitive dysfunction or extreme difficulty waking up and sleep drunkenness. Stimulant and wake-promoting medications can be helpful to relieve sleepiness for some patients, however they are rarely effective long term. Some people with IH find a combination of medication and lifestyle changes are helpful in managing their symptoms. Lifestyles changes can be difficult to initiate (and maintain) for people with chronic illness and may need the assistance of a specialist therapist.

More information can be found at www.hypersomnolenceaustralia.org.au

MYOSPOTS™ AUS

What are MYOSPOTS™?

MYOSPOTS™ is a patented Australian innovation to facilitate **tongue elevation exercises** unconsciously and saves time used in concious exercise. Myospots™ are small discs made of safe, natural polymers that adhere easily to the roof of the mouth and slowly dissolve in saliva when your tongue elevates to touch and rest on them. It takes about an hour to dissolve, which provides almost 1 full hour of tongue elevation exercise with each single spot.

Oropharyngeal exercises reduce Obstructive Sleep Apnea

Oropharyngeal exercises (exercise for tongue, soft palate and lateral pharyngeal wall) over a period of 3-4 months proved to be effective in reducing snoring by 59% and to reduce the severity of obstructive sleep apnea by 39% to 50%.

References

Chest 2015, 148, 683; Am J Respir Crit Care Med 2009, 179, 962; Sleep 2015, 38, 669

How do you use MYOSPOTS™?

MYOSPOTS™ guides the tongue to the correct spot where it needs to rest on the roof of the mouth and continuously reminds the tongue to stay elevated until the adhered spot has dissolved. This will train the tongue muscles to have the correct posture, increase tongue muscle strength and help prevent mouth breathing.

The use of MYOSPOTS™ over a period of 3-4 months results in a new tongue elevation habit that lasts while awake and asleep to prevent the tongue from falling back and collapsing the airways during sleep.

Place a MYOSPOT™ on your dry, clean thumb

Force the spot against the palate with gentle pressure for 10 seconds

Keep pressing with your tongue until it dissolves