



BURNSIDE
HOSPITAL

BURNSIDE SLEEP CENTRE

SLEEP STUDY INFORMATION

Welcome to the Burnside Sleep Centre

You have been referred to the Burnside Sleep Centre for a sleep study. A Sleep Study (*polysomnogram*) monitors a range of functions during sleep including oxygen levels, breathing, brainwave activity, eye and leg movements and heart rate. A thorough understanding of a patient's sleep is achieved through the continuous recording and monitoring of these functions, thereby allowing a precise diagnosis of sleep disorders.

The above mentioned functions that occur during sleep are monitored by applying small sensors to the skin of your scalp, face, chest, finger and legs. Sleep Technicians will observe your sleep signals from a monitoring room throughout the night, and will provide any assistance you may need. All sensors are attached to one device which is easily unplugged by the technician and carried with you if you need to use the bathroom during the night.

Some people express concern that they will not be able to sleep during the night due to the attached sensors and strange environment. However, *most* people sleep quite well. Each bedroom has been designed for maximum comfort. Each room is individually climate controlled and is equipped with private en-suite, sound proofing, a king-single bed and television. The sensors are applied so that you can turn and move as needed for optimal comfort. Generally you will not be aware that you are wearing the sensors after they are on for a short period of time.

We ask that you arrive at 7:30pm and present to the Patient Services Counter in the front foyer of the Hospital. Following completion of your admission details, a Sleep Technician will accompany you to your room and then explain the initial setup and overnight procedures. They will also answer any questions you may have. A technician will apply the sensors soon after your arrival. This is so our equipment can be tested accurately and to allow the quality of the signals to be assessed. You will not be required to go to sleep at this time, as we try to adhere to your regular bedtime as much as possible.

Your sleep study ends at approximately 6:15am. An en-suite bathroom is provided for your convenience and a light breakfast is served at 7:00am. Discharge is at 7:30am. Please inform the technician if you need to depart earlier.

Results / Consultation

In most cases a follow-up appointment with your Sleep Specialist will be organised when your sleep study booking is made. During the consultation the results of your sleep study will be discussed with you along with any recommendations for further investigation or treatment.

If you do not have a follow-up arranged with a Sleep Specialist please contact the Sleep Centre.

Common Sleep Disorders

Some of the most common sleep disorders diagnosed and treated at the Burnside Sleep Centre include:

Snoring: When asleep, the area at the back of the throat sometimes narrows. The same amount of air passing through this smaller opening can cause the tissues surrounding the opening to vibrate, which in turn can cause the sounds of snoring. The narrower the airway, the louder the snoring becomes. While often regarded as just an annoyance to the sufferer or their bed partner, snoring can cause significant sleep disturbance. Loud snoring causes the sufferer or bed partner to wake frequently and the quality of sleep to be reduced. In itself snoring can be a sleep problem, but it is often an indicator of another, more serious sleep disorder called Obstructive Sleep Apnoea.

Obstructive Sleep Apnea Syndrome: Snoring is a good indicator of the possibility of Obstructive Sleep Apnoea (OSA). OSA is characterised by the temporary blocking of the airway during sleep. It occurs when the tongue and other soft tissues in the back of the throat collapse and partially or totally block the airway. This reduces or completely blocks the flow of air through the throat into the lungs. This process is associated with an increase in breathing effort and typically a drop in the body's blood oxygen levels. This brain reacts by waking or briefly arousing the body to restore muscle tone and breathing starts again. In most cases, the person suffering from OSA is unaware that they are waking up. This pattern can repeat itself hundreds of times over a night, causing fragmented sleep. This leaves the person feeling excessively sleepy during the day.

Individuals with excessive sleepiness suffer from drowsiness and reduced concentration which can lead to changes in mood and personality and overall reduction in quality of life. If left untreated, OSA can have serious medical implications. OSA can contribute to high blood pressure, an increased risk of heart attack and stroke. A number of other symptoms that can be associated with OSA include headaches and dry mouth on awakening, sweating during sleep, difficulty staying asleep, waking frequently during the night to urinate, worsened heartburn and reflux at night, and sexual dysfunction.

Restless Leg Syndrome: People with Restless Leg Syndrome often report a "creeping" or "crawling" sensation in the legs, which is relieved with movement. The symptoms are most commonly experienced when the person is lying down and trying to relax. As a result, most people with RLS have difficulty falling and remaining asleep. Left untreated the condition causes exhaustion and daytime fatigue.

Periodic Limb Movement Disorder of Sleep: Many people with RLS also have a related sleep disorder called Periodic Limb Movements in Sleep (PLMS). PLMS is characterised by involuntary limb movements during sleep, which occur every 10 to 60 seconds. Some people may experience hundreds of such movements per night, which can wake them and disturb the sleep of both the sufferer and bed partner. People who have PLMS have trouble falling asleep and staying asleep and may experience extreme sleepiness during the day.

Insomnia : Insomnia refers to difficulty falling asleep, waking up during the night with difficulty returning to sleep, and/or waking up too early in the morning. Insomnia can be classified as transient (less than one month) or chronic. Chronic insomnia occurs most nights and last a month or more. Some of the wide range of causal factors include poor sleep hygiene, stress, anxiety, depression, sleep-wake schedule problems (i.e. shift work or jet lag), various medical conditions and use of certain medications. Insomnia may cause problems during the day, including tiredness, difficulty concentrating and irritability.

Parasomnias: The term parasomnia covers a variety of unusual physiological and behavioural phenomena which can occur during sleep, ranging from unusual movements and behaviours to dreams / nightmares, night terrors, sleep-walking and sleep-talking.

Narcolepsy: Narcolepsy is a neurological disorder that causes excessive sleepiness. People may also experience vivid dreaming at night, feeling paralyzed upon awakening from sleep, and cataplexy (sudden muscle weakness in response to strong emotion).