Can I be treated without a sleep study? There is generally no way to be sure that you have a sleep disorder without doing a sleep study.

How much will my sleep study cost? What you pay depends very much on where you go for your study but most costs are covered by Medicare and Private Health Funds. The actual cost will vary from state to state and hospital to hospital. In some public hospitals there may be no cost if you attend as a public patient. If you are concerned, you should discuss the likely costs of the proposed sleep study with your sleep doctor.

How do I book in for a sleep study? Because it is an expensive test and there are sometimes long waiting lists, you will need a referral to the laboratory. If you are concerned about a sleeping problem you should first see your family doctor who will decide whether to refer you to a specialist sleep doctor and a sleep laboratory. Not everybody needs a sleep study but if the sleep doctor thinks you should have one, then you will know what you have to look forward to!

DISCLAIMER - INFORMATION PROVIDED IN THIS FACT SHEET IS GENERAL IN CONTENT AND SHOULD NOT BE SEEN AS A SUBSTITUTE FOR PROFESSIONAL MEDICAL ADVICE. CONCERNS OVER SLEEP OR OTHER MEDICAL CONDITIONS SHOULD BE DISCUSSED WITH YOUR FAMILY DOCTOR.

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Form AT05 06/07

SLEEP STUDY

SDA

SLEEP DISORDERS AUSTRALIA

ABN 98 075 427 459

Sleep Disorders Australia is a voluntary group offering assistance and support to those persons and their families who are living with sleep disorders throughout Australia.

Your Sleep Study: The best way to diagnose many sleep disorders is with a Sleep Study or Polysomnogram conducted at a specialist Sleep Disorders Laboratory. This fact sheet tells you what to expect from this study.

If you are seeing a doctor for a problem with sleep, particularly if the doctor thinks you may have sleep apnea, chances are you have had or are going to have a *"sleep study".* About 65000 sleep studies are conducted each year in Australia. As recently as 1980 no more than a handful of sleep studies were performed. Since then the sleep study has become accepted as the best way to diagnose a number of conditions that occur during sleep.

Where is your sleep study done? Sleep studies are almost always done in a specialised sleep centre, often called the *"sleep laboratory".* Some of these are in public hospitals and some in private hospitals or sleep centres. If your doctor refers you to a hospital sleep laboratory you may be admitted to the hospital or attend as an outpatient. In each case you will only be required to stay overnight, arriving in the evening and leaving early the next morning.
In recent years equipment has become available to do a partial sleep study in your own home. Some laboratories may offer this service but home sleep studies are not suitable for all situations and may not provide your doctor with the information he or she needs for diagnosis. Your sleep doctor is the best person to advise you on the appropriate type of study for your situation.

Who is going to do my study? Normally studies are done by nurses, sleep technologists or scientists depending on the staff structure of the sleep laboratory. Some laboratories use a combination of staff such as a nurse and a technologist.

What does a sleep study measure? Another name for a sleep study is a *poly-somno-gram* (literally meaning many-sleep-measures). In a typical polysomnogram up to twenty different measurements of your sleep and breathing are made. The commonly measured things are:-

- EEG - electroencephalogram - a measurement of electrical signals from the brain allowing the staff to tell whether you are awake or asleep and what stage of sleep you are in. The EEG uses small metal electrodes, about half the size of a five cent piece, which are glued to your head.
- EOG - electro-oculogram - a measurement of eye movement that helps to distinguish REM sleep from other sleep. This is important because some people have much worse problems in REM, or dreaming, sleep than in other sleep.
- EMG - electromyogram - a measurement of the activity of the muscles under the chin. This also helps the staff to detect REM sleep.
- ECG - electrocardiogram - a measurement of the electrical activity of the heart which allows the staff to pick up any irregularities in your heart beat or rhythm during the night.
- Breathing - a small device to detect breathing is generally placed in front of the nose and mouth.
- Breathing effort - loose elasticized bands are placed around your chest and abdomen to determine whether you make breathing efforts all the time or whether there are some periods when the body just forgets to breathe.
- Oxygen in the blood - an oximeter is a loose fitting probe similar to a clothes peg that is placed on your finger or sometimes on your ear. The oximeter shines a red light through you finger to measure the level of oxygen in your blood.
- Leg movement - small devices are stuck to each leg, and sometimes to your arms, to see whether your legs are moving during sleep. This is important in the diagnosis of a condition called periodic limb movements of sleep.
- Snoring - a microphone in the room measures the snoring noise you make.
- Body position - a device placed on your chest is used to record whether you are lying on your back, side or front.
- Video - most laboratories use an infra-red sensitive video camera to keep an eye on you while you sleep.

Isn't this uncomfortable? What happens if I don't sleep? None of the measurements are painful. Some are a little uncomfortable but almost everyone having a sleep study gets some sleep, often a lot more than they think. If you don't sleep at all, you may have to have the study repeated.

Treatment studies. A sleep study may be repeated when you have undertaken treatment, eg CPAP for sleep apnea. This may require you to wear your CPAP for the whole or part of the night. A study in which you have treatment for half the night is usually called a “split-night” study.

What happens after the study? Exact arrangements may differ between laboratories but when you wake up in the morning your job is done. You will then be able to have a shower and leave for work or home. The work of the day time staff then begins as they use the computer to analyse your recorded sleep measurements. A study may take two or more hours to process. A qualified sleep doctor will then look at the study and make a report. This process may take a week or so and then you will come back to see your doctor to hear the result.

What should I bring to my study? This will depend on the requirements of the laboratory but generally you should take whatever you would normally take for an overnight stay in a hotel. This would include pyjamas, toilet accessories such as toothbrush and razor, possibly a change of clothes for the next day. Some laboratories also like you to bring your own pillow if this is likely to help you sleep. You should also bring any medication that you take at night. If it is not appropriate to take the medication, the staff will advise you of this. If you use a CPAP pump, mouth-guard or other device at home you should talk to your doctor or the laboratory about this and see whether it is necessary to bring this with you.

What about eating or drinking on the night of the study? Most laboratories like you to do whatever you would normally do. You should eat a normal meal and if this includes a glass of wine or a beer after work this would normally be alright. If you are concerned call the laboratory to find out.