

Patient Information Brochure

Sleep Apnea/ Hypopnea and Sleep Study

Are you suffering from Sleep Apnea?

You are probably suffering from sleep apnea, if you have the following symptoms

- Habitual loud snoring
- Disturbed sleep with frequent awakening
- Gasping or choking episodes during sleep
- Witness of apnea by bed partner
- Frequent nighttime urination
- Unrefreshing sleep or morning headache
- Excessive daytime sleepiness
- Irritability, memory loss, personality change
- Automobile or work related accidents due to sleepiness

What is Sleep Apnea?

During sleep body's muscle relax and in some people the relaxation of muscle can cause partial obstruction of the upper airway. Usually, this is due to the tongue and soft palate relaxes downward in the back of the throat. This obstruction can lead to loud snoring and episodes of stopped breathing (Apnea) during the night. The stoppage of breathing can occur several hundreds of times throughout the night and one episode can last for a minute or longer. During each apnea episode blood oxygen saturation falls and low oxygen saturation arouse the person from sleep to start re-breathing. As a result, the sleep is extremely fragmented and of poor quality. However, affected persons are usually not aware of this repeated awaking at night, but may feel excessive sleepy (inappropriate situations), tired, irritable, and difficulty to concentrate during the day. The person's work may suffer, and the risk of accidents and mistakes may rise. In addition, sleep apnea is associated with hypertension, heart attack, and stroke. In children, sleep apnea may lead to hyperactivity and increased bed-wetting.

Many people are suffering from this disease without knowing it. Commonly, a family member brings it to the attention of a health care provider by complaining about the person's excessive loud snoring or interrupted breathing pattern during sleep.

Sleep Study/ Polysomnography will confirm the diagnosis

What are the factors predispose to Sleep Apnea?

Obesity, large tongue, large tonsil, small jaw, hypothyroidism

Alcohol, smoking, sleeping pills.

Why should I need the treatment?

If you are suffering from sleep apnea, you have increased risk of developing following diseases

- Hypertension
- Coronary Artery Disease
- Congestive Heart failure
- Stroke
- Memory problems,
- Weight gain,
- Impotency
- Increased risk of accidents

What is Sleep Study (Polysomnography)

- This is a study is to record your brain waves, eye movements, the electrical activity of the muscles, blood pressure, and respiratory rate, blood oxygen levels and heart rhythms. This study is done during sleep and usually at night.
- The technician will apply several leads to collect above information and this can make you little uncomfortable. Small metallic disc (electrodes) will be applied on your head and with

the help of gel and adhesive tapes. Sensor belts will be applied on your abdomen and thorax to recorded respirations. There is no risk of needle prick or electric injury during the study.

How shall I prepare myself for Sleep Study?

- You should come at 8.00 PM. You should take a bath/head wash with shampoo and no oil should be applied on your head or body on the day of the study. Male subjects should have shaving.
- You have to stay overnight in sleep Laboratory.
- Wear light clothes.
- If you are taking any medicine at night, you have to bring that.
- You should take light dinner before you come.

What will happen during the sleep study?

- During study your sleep, respiratory and other function will be closely monitored.
- If you have repeated episodes of breathing cessation, technicians apply a device (CPAP) machine to relieve your problems. The staff will observe you closely and make necessary pressure changes to find the proper pressure needed to keep your airway open, adequate oxygen levels and good sleep quality.

What happens after the study?

- In the morning, you will be discharged. After the study, doctor will evaluate all the recordings and will diagnose or confirm your disease.

What are the treatments available for Sleep Apnea?

A. General measure:

Reduction of body weight

Avoidance of alcohol, smoking, sleeping pills

Nasal decongestant (if indicated)

B. Specific measures

1 Continuous Positive Airway Pressure (CPAP)

- A small mask is applied to your face/nose, secured with an elastic straps over your head and the tubing will be plugged into the machine.
- Machine will deliver compressed air through this mask into your airway to prevent your airway to collapse during sleep. This is designed to help to ease your breathing during sleep.
- This therapy is well tolerated by 70% of people and the complaints are minimal. Most common complains are nasal stuffiness, dryness of the mouth; mask air leak, sore or red eye, skin irritation by the mask and feeling of too much air. The right amount of air pressure is necessary to get the optimum benefit and the pressure is adjusted during sleep study. Initially you may have difficulty with CPAP. However, properly selected pressure and mask will make you comfortable with time

2. Oral Appliances:

- This device opens the airway by bringing the jaw or tongue forward. Mild to moderate degree of apnea will be benefited by such appliance. This treatment is usually indicated for anatomical abnormality or those who are not able to tolerate CPAP.

3. Surgery

- This is very useful for those who have anatomical abnormality e.g. enlarged tonsil/adenoids, nasal polyps etc. The aim of the study is to increase the size of throat at the base of tongue. In properly selected patents the therapy is very effective.

4. Medications

- Medicines are not much useful for treatment.

For any further assistance please contact your concerned doctor.

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