

## *What to Expect During Your Sleep Study*

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### **What should I bring?**

Prepare yourself for your night in the sleep laboratory as if you were going to spend the night in a hotel. Please bring with you everything you would need to spend the night away from home. This should include: all medications, your pajamas, toothbrush, books to read, etc. If you wish you may bring your own pillow. You will not need to bring an alarm clock, as the technician will wake you in the morning. Please keep in mind that cell phones and pagers should be turned off so as not to disrupt your study or another patient's study.

### **What happens when I get there?**

You will check in at the facility and proceed to the Sleep Center where you will be greeted by a sleep technician. You will be asked to change into your nightclothes and prepare for bed. A technician will begin to apply various sensors and electrodes for your sleep study.

### **What is a sleep study?**

A sleep study, or polysomnogram, is similar to an EEG or ECG study, but makes 16 different measurements in your brain or body for the entire time you are asleep. This test is not invasive; the electrodes are resting on the skin attached by a special adhesive and tape. These test begin at night and last through the morning, as would a normal night of sleep.

### **What do the sensors tell the sleep technician?**

From the electrodes that are placed on different points on the body, the computer receiving the information can measure up to 16 different body movements at the same time. Usually, these include the following:

**Brain Waves or EEG:** Usually 6 electrodes are attached to your scalp with a water-soluble paste or adhesive. Your hair is not cut or shaved. Needles are not used. The adhesive is removed when your study is over. Brain waves allow us to determine the different stages of sleep.

**Eye Movements:** Usually 2-3 electrodes are attached with tape near your right and left eyes. They do not touch your eye in any way. Eye movements help us identify specific sleep stages.

**Muscle Activity:** Usually 2 electrodes are attached with tape on your chin or under your chin. Muscle tone plays a large role in determining your sleep stage throughout the night.

**Electrocardiogram (ECG):** Usually 3 electrodes are attached with tape the upper chest to record your heart's activity.

**Leg Movements:** Usually, a small belt of cuff is placed around each ankle to record leg movements. Occasionally, 2 electrodes are attached with tape to your lower legs to measure leg muscle activity.

**Breathing:** Your breathing is measured in several ways. First, a sensor is attached with tape to your upper lip to measure airflow. Second, lightweight belts are placed around the chest and abdomen to measure how much effort you are making to breathe. These belts are not tight or restrictive; they are sensitive to the motion of breathing.

**Oxygen Levels in the Blood:** A sensor is attached to one of your finger or your ear with tape to measure the oxygen levels in you blood.

**Other Sensors:** Depending on your particular problem other types of sensors may be used. Please feel free to ask the technician about any of the equipment used in the sleep laboratory.

### **Why is it necessary to record so many different things?**

Your brain and your body function very differently during sleep than during the day. Even if your heart, breathing, and brain activity are completely normal during the day they may be different or abnormal during sleep. The only way to determine the degree of the sleep problem is to take a variety of measurements.

### **How can I possibly sleep with all those things attached to me?**

Almost every patient who comes for a sleep study asks this question. However, most patients find it is not as bad as it sounds. Most patients have a similar night's sleep as they do in their homes.

### **Can I sleep in my usual position and can I turn over?**

All electrodes and sensors are attached so they should not come off during sleep. You should be able to sleep as you do at home and turn over as usual. If you feel you cannot sleep normally because of the electrodes, please call the sleep technician to help you. Also, if an electrode or sensor does come off, the technician on duty will simply adjust the sensor.

### **Will you give me any medication to help me sleep?**

No- this might change your sleep and prevent us from identifying the source of your sleep problem. However, you may take whatever medication you usually take before bedtime. Just be sure to tell the technician what you're taking.

### **What happens if I need to go to the bathroom during the night?**

All the electrodes and sensors are “plugged in” to a portable box. The box is simply unplugged and the patient is able to go—electrodes and all—to the bathroom. This is an easy process and can be done in a few seconds.

### **Will anyone else be in the sleep laboratory when I am there?**

A technician will greet you when you arrive at the sleep laboratory and show you to your room. A member of our technical staff will be present --- and awake--- in the control room all night long. Most sleep rooms have an intercom that is left on all night. You may call the technician at any time by simply speaking. Depending upon the location, there may be other patients having sleep studies in their own rooms.

### **When can I leave?**

Usually the technician will wake you at 6:00am. If you need to be up earlier, please notify the technician. The technician will remove all the leads and sensors. There will be a short questionnaire to fill out. As soon as you are unhooked, you are free to leave. Many patients bring their clothing for the next day and leave directly for work or other daily activities.

### **What is a MSLT?**

Some patients are scheduled to stay through the day for daytime testing or Multiple Sleep Latency Test. This test monitors your daytime functioning. When you awaken in the morning from your sleep study, the technician will remove the respiration monitors and leg electrodes but will leave the head and EKG electrodes attached. These will stay on all day. At two-hour intervals beginning at 8:00am, you will be asked to lie down in bed and close your eyes for twenty minutes. These naps will continue throughout the day at the following intervals 11am, 1pm and 3pm. When each nap is over, you will be asked questions about your sleep, and evaluate how tired or alert you feel. Between the napping periods, you will be able to watch television, read, etc. but you will not be allowed to lie down or take additional naps. After the last nap, the technician will remove the electrodes and you will be allowed to leave sometime around 5:00pm.

### **How and when do I get the results?**

All sleep studies contain 1, 000 pages or more data that must be analyzed and interpreted. Analyzing a sleep study is a time consuming process. Each page of the recording is examined for sleep stage, breathing abnormalities, cardiac arrhythmias, movements, arousals, as well as many other variables. Often the technician must review the same page of data 3 or 4 times to identify all significant data. The fully analyzed data is then reviewed by a certified sleep specialist who will provide an interpretation (what the results actually mean). This information is entered into the final sleep study report and prepared for your doctor. This process usually takes approximately 14 working days. Results will be faxed and mailed to the physician who order the sleep study for you. The Sleep Center Technician and scheduling staff will not be able to provide your results. You will need to follow up with your physician to obtain your sleep study results.