

SPLIT-NIGHT POLYSOMNOGRAM INFORMATION SHEET

About the split-night study:

A split-night study is an overnight polysomnogram performed with a two-hour period of baseline sleep study recording, followed by a CPAP titration study if it is determined to be indicated by the presence of clinically significant sleep apnea. CPAP (Continuous Positive Airway Pressure) is a device utilized to treat obstructive sleep apnea. It consists of nasal mask, connected by tubing to an air compressor. The mask fits snugly over or under the nose, and the air compressor increases the pressure of the air you breathe in. In a CPAP titration study the pressure is gradually increased until a pressure is reached that results in the resolution of the sleep apnea. CPAP is the most effective treatment available for obstructive sleep apnea.

The procedure is as follows:

- Before going to sleep the technologist will review the procedure and fit you with a CPAP mask.
- The technologist will calibrate the equipment and a standard sleep study is run until two hours of sleep time has been documented.
- After this, the technologist will score the study, counting the number of obstructive airflow events that have occurred to determine if you have sufficient obstructive sleep apnea to warrant placement of the CPAP device. Different doctors use different criteria, varying from 15 events per hour of sleep to 40 events per hour of sleep. We will follow the guidelines provided to us by your referring physician.
- If a split night study has been requested and you meet criteria, you will be awakened by the technologist, typically between 1:00 and 2:00 am-earlier if you fell asleep before 11:00 PM, and they will explain that you had sufficient obstructive sleep apnea to warrant placement of the CPAP device.
- You will then go back to sleep with the CPAP device on and while you are asleep the technologist will gradually increase the CPAP pressure until a pressure is reached at which all disordered breathing events and snoring have resolved.

Reasons that one might not be placed on CPAP during the night:

- Insufficient number of disordered breathing events documented over the first two hours of sleep time to warrant CPAP: The degree of disordered breathing present over an entire night is not always reflected the first two hours of sleep. Therefore a certain percent of patients are found to have sufficient apnea to warrant treatment only after an entire night's study has been reviewed and scored.
 - Subtle events may be difficult for the technician to detect while the study is running and may only be adequately evaluated by the physician when the record is formally scored.
 - Sometimes disordered breathing occurs predominantly or exclusively during REM sleep. REM sleep occurs predominantly in the early morning hours and REM related apnea may not be documented until it is too late to begin a CPAP titration study.
 - Insufficient sleep until too late at night: A great deal of time is required to adequately adjust the CPAP pressure.
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- Obstructive sleep apnea may be sensitive to body position. If it is sufficiently difficult to fall asleep in the sleep lab environment that we try not to legislate that you sleep in any one body position. Positional apnea can often only be fully assessed with a full night baseline polysomnogram.

A split-night polysomnogram has the benefit of potentially getting the work of two studies done in one night. The procedure places the burden of diagnosis during the night on the technologist and sometimes data is not sufficiently clear to allow for the initiation of CPAP treatment. We feel strongly that it is better to err on the side of not initiating CPAP if there is any question so that the referring physician will have the benefit of a full night's data upon which to base his/her assessment of you. Overreacting and placing you on CPAP with insufficient information may lead to the need for a repeat baseline polysomnogram or even worse the initiation of an unnecessary treatment.

Before the Study:

1. Wash your hair well within 36 hours prior to testing.
 - a. Do not apply hair products or body lotion.
 - b. You may shower in the laboratory before leaving in the morning.
2. Please eat a regular dinner before coming into the lab.
3. Limit caffeine to 1 beverage before noon on the day of the test. If you drink more than 2 caffeinated beverages / day, it is advisable to wean yourself off over several days to avoid rebound headaches.
4. Avoid all alcoholic beverages for 24 hours prior to your test
5. Please bring pajamas, toiletries, a good book, a favorite pillow, an iPad or kindle, and any other items that will make you feel more relaxed and enhance the possibility of recording a representative night's sleep. We do have Wi-Fi for you to use.

PLEASE call and schedule a follow-up appointment with your referring physician to go over the results of your study. Your physician will have the preliminary results 5 - 10 working days following your study.