

Pulmonary Medicine, Allergy, and Immunology

SLEEP LABORATORY

AT CHILDREN'S HOSPITAL OF PITTSBURGH OF UPMC, we believe parents and guardians can contribute to the success of this procedure, and we invite you to participate. Please read the following information to learn about the procedure and how you can help.

Fast Facts About the Sleep Study

- Sleep studies are performed at Children's Hospital in Lawrenceville and at Children's North in Wexford. In Wexford, the Sleep Lab is located adjacent to the hospital facility.
- An overnight sleep study is done to evaluate your child's sleep and breathing to see if there are any problems. Your child's brainwaves, eye movements, and breathing through the nose, chest, and belly will be measured, and your child's heart rhythm, oxygen, and carbon dioxide levels will be checked during the test.
- You and your child will need to come to the sleep lab at 6:30 p.m. and stay overnight for the sleep study. Your child will be awakened at 5:30 a.m. the next morning and will be discharged by 6 a.m.
- You will need to make a follow-up appointment with the referring doctor for 2 weeks after the study is done, to discuss results and treatment options.
- This procedure is pain-free.
- Several stickers called "sensors" will be placed on your child's head, chest, and legs and be connected to a computer. These sensors do not hurt, but your child may say that the sensor placed under the nose tickles.
- It can take up to 1 hour to hook up all of the sensors that are needed to monitor your child's sleep and breathing.
- A sleep lab technologist will do your child's sleep study. The results will be read by a sleep doctor and the report will be sent to your referring doctor.
- There are some special instructions for home preparation that you will need to follow before the test.

What Is A Sleep Study?

A sleep study, also known as a polysomnogram (*polly-SOM-no-gram*), records your child's sleep patterns, brain waves, breathing, and muscle movements. A sleep study is very helpful in diagnosing breathing, neurological, and movement disorders that may occur during sleep. Some of the symptoms that may lead your child's doctor to order a sleep study are snoring, bed-wetting, sleep walking, sleep talking, night terrors, pauses in breathing (sleep apnea), the feeling of being tired all day, falling asleep at school, and/or waking up in the morning still feeling tired



Home Preparation

Before coming to the Sleep Lab:

- Do not give your child an extra nap the day of the sleep study.
- Do not give your child foods that contain caffeine (such as chocolate, certain sodas, energy drinks, coffee, or tea) in the 24 hours before the test.
- Have your child bathe or shower and wash his or her hair. Cleaning the skin and scalp will eliminate oils so it will be easier to attach the sensors that record your child's sleep patterns. Do not put any oils or lotions on your child's skin, hair, or scalp.
- Bring your child's toiletries (toothbrush, toothpaste, face soap).
- Pack a nightgown or pajamas for your child, but DO NOT bring pajamas that are one-piece or footed. Sensors will be placed on your child's legs and body.
- Make sure your child eats dinner before coming to the Sleep Lab. Food is not available at the Sleep Lab.
- You may bring a filled bottle if your child is very young or a bedtime snack for older children, but do not bring sweets, chocolate or other food that contains caffeine. Caffeine will interfere with your child's sleep patterns.
- Bring any medicine that your child may need before bedtime, throughout the night, and early in the morning.

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What Happens During A Sleep Study?

Once your child is registered, you will be taken to the room where you and your child will spend the night. All bedrooms are private.

- Your child will sleep in a hospital bed or crib, depending on his or her age. The parent or guardian will sleep in the convertible chair/bed. You will be provided with pillows, sheets and blankets for your bed.
- The sleep lab technician will take your child's weight, vital signs, and medical history. You will be asked to name any medications your child might be taking, as well as the dosages and the time last taken.
- The sleep lab technician can answer any questions you might have.
- To begin the sleep study, the technician will place 10 stickers, called "sensors," on your child's head to measure your child's sleep patterns. Two sensors will be placed on the back of the head, one behind each ear, one midway down each side of the head, one on the top of the head, and one on the forehead. Sensors also will be placed on the neck, around the eyes to measure eye movement, on the chin to measure muscle tone, underneath the nose to monitor the air your child breathes out, and on the legs to measure movement during sleep.
- The technician will place a soft elastic "belt" around your child's chest and another on his or her waist to determine if he or she is breathing from the chest or belly. These belts do not hurt.

- The sleep study will begin after all of the sensors have been attached. Lights out is at the child's usual bedtime, but no later than 10 p.m.
- The study will continue throughout the night and into the early morning. The sensors will take readings throughout the night, and the sleep technician will observe your child with the camera while the readings are taken.
- Your child will be able to leave once all of the sensors have been removed, usually between 5:30 to 6 a.m. At Children's North, all patients must be discharged by 6 a.m.

A Parent's/Guardian's Role

The most important role of a parent or guardian is to help your child stay calm and relaxed before the sleep study. The best way to help your child stay calm is for you to stay calm.

- You may bring along a "comfort" item — such as a favorite stuffed animal or "blankie" — for your child to sleep with.
- One parent or guardian must stay overnight at the lab during your child's sleep study.
- To help your child relax, you may bring a few favorite videos for your child to watch while the technologist puts on the sensors and before bedtime. There are no televisions for regular viewing.
- You may bring a bedtime snack or bedtime bottle for your child.

After the Sleep Study

After discharge your child may be tired if he or she did not get a good night's sleep. Once your child has been discharged, he or she may return to normal activities. Please call or make an appointment with your referring doctor 2 weeks after the test to obtain the results.

At-Home Care and Follow-Up Visits

You will need to call or bring your child to see the referring doctor or nurse practitioner 2 weeks after the sleep study.

Your child should not experience any symptoms following the sleep study. Minor skin irritation caused by placement of the sensors may occur on rare occasions.

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Special Needs

If your child has any special needs or health issues you feel the lab needs to know about, please call the Sleep Program at Children's Hospital before the sleep study and ask to speak with the sleep scheduler or technologist. It is important to notify us in advance about any special needs your child might have

Pediatric Sleep Program
Division of Pulmonary Medicine, Allergy, and Immunology
Children's Hospital of Pittsburgh of UPMC
One Children's Hospital Drive
4401 Penn Ave.
Pittsburgh, PA 15224
412-692-9717 Scheduling (9 a.m. to 4 p.m.)
412-692-7630 Laboratory (after 4 p.m.)

Children's North Sleep Laboratory
2619 Wexford-Bayne Road
Sewickley, PA 15143
412-692-9717 Scheduling (9 a.m. to 4 p.m.)
724-934-1155 Laboratory (after 4 p.m.)



To see the list of all available patient procedures descriptions, please visit www.chp.edu/procedures.