

## **Auditory Brainstem Response (ABR) with Sedation or Anesthesia**

An auditory brainstem response (ABR) is a test that checks for hearing loss. ABRs see how well sound moves from the hearing nerve to the brainstem. They're usually done on babies and children who can't have other hearing tests because of their age or developmental level.

### **About the Test**

Small stickers called electrodes are put behind or in front of each ear and on the forehead. Then, special earphones are put over your child's ears to send (transmit) the sounds. The electrodes record what your child can hear. This test is safe. It will not hurt your child.

### **Before the Test**

- A nurse will call you about 1 to 2 days before the test to confirm the date and time. They will also tell you what your child may eat or drink before the test.
- If your child takes medicine, the nurse will tell you which medicines they should not have before the test.
- **Follow the instructions given about food, drinks, and medicines before your child's test. If you don't follow these instructions, the test may be canceled.**
- If you have questions, call the pre-admission/sedation nurses at:
  - Columbus: (614) 722-3850
  - Toledo: (419) 251-4630

### **Types of Sedation**

- **Your child is scheduled to have:**

Light sedation

Anesthesia

- **Light sedation** is light sleep. When your child has light sedation, they aren't aware of what's happening. They breathe on their own and may respond to some things, like voice commands or touch. **This sedation option is only offered at Nationwide Children's Hospital Toledo.**
- **Anesthesia** is a deeper sleep. While under anesthesia, your child won't be aware of what is happening. They don't respond to things like voice commands or touch. **This is only offered at Nationwide Children's Hospital Columbus.**

Children with any of the following may need to have anesthesia:

- Complex medical issues
- History of sleep apnea
- Egg allergy
- Chromosome abnormalities
- Problems with their airway
- Heart problems that aren't repaired
- Morbidly obese (BMI greater than 35)
- Autism
- Children who can't get an IV without being sedated
- Aggressive behavior, like hitting or biting

### **Day of the Test – Light Sedation (Toledo Only)**

1. On the day of the appointment, you will check in at the unit. Arrive 90 minutes before your child's ABR.
2. After checking in, you and your child will go to a unit. You will sign a consent form allowing the sedation after talking to the doctor. You may stay in the room with your child for the test.
3. Your child will get either get an intravenous (IV) line or the sedation medicine will be given in the nose. The nurse will explain ways you can help your child if an IV is needed.
4. The nurse or doctor will give your child medicine and watch them as they fall asleep. They will stay with your child during the entire test.
5. A hearing doctor (audiologist) will do the test. It will take 30 to 90 minutes. When the test is over, the audiologist will discuss the results with you.
6. Your child will be watched closely in the procedure room until they wake up.
7. After your child is awake, they may have some clear liquids. If they can keep liquids down, they may have crackers. Your child will be watched closely until they leave the hospital.

## **Day of the Test – Anesthesia (Columbus Only)**

1. On the day of the appointment, you will go to registration to check in. Arrive 90 minutes before your child's ABR.
2. After registering, you and your child will go to a pre-operative (pre-op) room. You will sign a consent form allowing the anesthesia after talking to the doctor. The nurse will take your child to the procedure room. You will stay in the waiting room during the test.
3. A nurse or doctor will start anesthesia medicine through a mask. Then, they will give your child an intravenous line (IV) to continue giving the anesthesia medicine. A nurse or doctor will watch your child and stay with them during the entire test.
4. The hearing doctor (audiologist) will do the test. It will take 30 to 90 minutes. When the test is over, your child will be moved to a post-anesthesia care unit (PACU) and watched closely until they wake up.
5. The audiologist will meet you in the waiting room after the test to discuss the results.
6. When your child is awake, you'll be able to see them. They may have some clear liquids. If they can keep liquids down, they may have crackers. They will be watched closely until they leave the hospital.