



# Auditory Brainstem Response (ABR)

Patient and Family Education

This teaching sheet contains general information. Please talk with your child's doctor or pediatric audiologist to get more specific information. Call **813-262-1330** to schedule an appointment.

## What is an Auditory Brainstem Response (ABR)?

An Auditory Brainstem Response (ABR) measures how the hearing nerve and the base of the brain respond to sound.

- This test is usually done to find out how well children can hear in each ear.
- If your child has a hearing loss, the test can tell about how much hearing loss is present at different pitches.
- It can also tell if your child has a hearing loss called auditory neuropathy.
- This test can be done with a child of any age, but the child must be quiet and still to get accurate results.
  - If your child is a baby (under about 4 months of age), they usually can do this test while they are sleeping in the office.
  - If your child is older (over about 4 months of age), they usually require medicine to sleep well during the testing. This will help your child be still so that accurate responses from your child's hearing nerve can be obtained.

## What will the test be like?

Before the test, an audiologist may test your child's middle ears. If the test shows that your child has fluid in his/her ear like an ear infection, the ABR may be postponed until the ear infection resolves.

- The audiologist will clean the skin on your child's forehead and by his/her ears.
- If your child needs medicine to sleep during the test, a doctor will give him the medicine. A nurse will check him/her often, including his blood pressure, pulse, and breathing rate.
- When your child is still, the audiologist will place wires on his/her forehead and by his ears. The wires will not hurt or shock your child. These wires help measure the response from your child's hearing nerve.
- Then, earphones are placed in your child's ears and sounds are played. The sound in his/her ears may sound like a soft clicking noise.
- A computer shows how the hearing nerve and the base of the brain respond to these sounds.
- The test may take from 30 minutes to 2 hours.

## What happens after the test?

- The wires will be removed from your child's forehead and ears.
- If your child did not need medicine to sleep for testing, he/she will be able to leave after the test is done.
- If your child needed medicine to sleep for testing, the doctor will tell you when you may go home.
  - Your child's nurse will go over instructions for when you get home.
  - You can usually go home about 1 hour after the test.

## When do I get the results?

- Your child's audiologist (the person testing your child's hearing) will explain the results to you once the test is done.
- The audiologist will tell you if your child needs follow-up with his/her doctor.
- The audiologist may also give you other advice based on the results of the tests.

Adapted from Children's Healthcare of Atlanta teaching sheet on Auditory Brainstem Response (ABR) testing