



What is an ABR?

The ABR is a safe, non-invasive test that can tell us about your baby's hearing while he or she sleeps. When sound is played into the ears, it creates a response that can be measured with electrodes (resembling stickers) placed on the head. These responses tell us about your baby's hearing.

As your child grows, different hearing tests are used depending on the child's age and stage of development. ABR testing is the only test available for newborns and infants that can provide specific information about a baby's estimated hearing. This testing can be completed during natural sleep in babies from birth - 6 months of age, but is usually most successful the earlier it is completed.

This test is similar to the one used for newborn hearing screening, but can give more detailed information about how a baby hears at different pitches.

Preparing for Your Appointment

ABR testing can *only* be performed when a child is **sleeping and still**. Babies are most likely to sleep for the full test if they arrive hungry and tired. Follow these tips to help ensure the best possible test for your child:

1. Try to **keep your baby awake and hold off feeding** until you get to the appointment.
2. **After the audiologist has prepared your baby for the test, you can nurse or feed your baby a bottle**. The test will take place after the baby is fed while he or she sleeps in your arms or in their carrier.
3. If your child has a regular sleeping schedule, **book your appointment at the child's usual naptime**.
4. **Please leave siblings at home** or bring another adult who can watch them during the appointment. ABR appointments can be long and siblings are often unable to sit quietly for the full length of test.
5. The testing room is small and only has only two chairs. We ask that **only one or two family members** attend the appointment, both for your comfort and to ensure a quiet testing environment.
6. **Arrive 30 minutes prior to your appointment** to allow enough time to complete paperwork.

What to Expect

During ABR testing, small electrodes that look like stickers are placed behind each ear and on the baby's head. Sounds are then presented through earphones. The electrodes pick up responses from the brainstem to the sounds played; those responses tell us about your baby's hearing.

The appointment is typically scheduled for 2 hours. A portion of this time may be spent calming the baby and preparing them for the test.

Other shorter tests will also be performed at your child's appointment. **Tympanometry** measures a child's eardrum movement and can check for middle ear fluid. **Otoacoustic emissions (OAEs)** evaluate inner ear function and is another type of screening tool.

Sometimes, the testing cannot be fully finished in one visit. This may be due to the presence of fluid in the ear or in the event the baby is unable to easily fall or stay asleep. If this occurs, a follow-up appointment will be scheduled before you leave so that the testing can be completed.

Did you know?

Interference from cell phones can affect the results of the test. Please turn all mobile devices OFF (not vibrate or silent) during your child's ABR.



After the Test

After the testing is completed, the audiologist will have a better understanding of your baby's hearing.

If the ABR is abnormal and your child has hearing loss, the audiologist uses the ABR test results to make appropriate recommendations for your child.

There are different kinds of hearing loss. Some children with hearing loss benefit from the use of hearing aids or other hearing assistance devices. Even very young children (<6 months of age) can use hearing aids. Early identification and management of hearing loss can improve speech, language and developmental outcomes. At Raleigh Capitol ENT, we have audiologists who are specially trained in pediatrics to service our youngest patients.

If the ABR is normal, follow-up behavioral hearing testing is still recommended. By approximately 6-8 months of age, the baby's hearing can be tested in other ways. Hearing problems can develop in babies and toddlers as they grow it is important to watch for signs that your child may not be hearing well.



Summary and Tips

1. ABR is a non-invasive test that tells us about your baby's hearing.
2. Arrive 30 minutes prior to your appointment.
3. Arrive with baby hungry *and* sleepy. (Bring breastmilk or formula.)
4. Bring only the baby. (If possible, leave siblings at home.)

Additional Resources

For further information on hearing screenings, ABR testing, developmental milestones, and childhood hearing loss, we encourage you to visit these websites:

www.babyhearing.org
www.ncnewbornhearing.org
www.ncbegin.org
www.nchitchup.org
www.asha.org/public/speech/development/chart.htm



4600 Lake Boone Trail, Suite 100
Raleigh, NC 27607
Phone: 919.787.1374
Fax: 919.571.8135
www.raleighcapitolent.com



After Hearing Screening: Auditory Brainstem Response (ABR) Testing and Your Baby



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