

BAER and EOAE Hearing Tests

What kinds of hearing tests is my child having?

Your child is scheduled to have a Brainstem Auditory Evoked Response (BAER) test and an Evoked Otoacoustic Emissions (EOAE) test. These tests allow us to find out how your child hears without them having to respond to sounds. We use the BAER and EOAE hearing tests for babies under 6 months old and with older children whose hearing cannot be tested behaviorally in a sound booth. These two tests are usually done together in our clinic.

How are these tests done?

Because the measurements we are taking are very sensitive to noise and movement, your child needs to be asleep during the tests.

What happens the day of the test?

A parent or legal guardian with medical decision-making rights must come with the child having the test or be immediately available by phone to give verbal consent.

The tests will take about 3 hours. The audiologist will share the results of the tests and any recommendations with you on the day of the test.

About the BAER

After your child has fallen asleep, four sensors are placed on the skin behind the ears and on the forehead. A soft earphone is placed in the ear, and different levels of click sounds and tones are presented. The response of your child's ear to these special sounds is recorded and stored in a computer. We find out if responses are in the normal hearing range and if not, we find the quietest level your child's ear responds to.

About the EOAE

Otoacoustic emissions are tiny sound waves (echoes) produced by the inner ear in response to special sounds presented to it. Our ears cannot hear these echoes when they are produced. A sound will be presented to your child's ear through a tiny earphone, and the emission (echo) will be recorded by a tiny microphone in the same earpiece. The emissions are recorded and stored in a computer. Each ear will be tested separately.

To cancel or change an appointment

If your child is sick on the day of the test, call 206-987-5173.

To Learn More

- Audiology
206-987-5173
- Ask your child's healthcare provider
- seattlechildrens.org

Free Interpreter Services

- In the hospital, ask your nurse.
- From outside the hospital, call the toll-free Family Interpreting Line, 1-866-583-1527. Tell the interpreter the name or extension you need.



Seattle Children's offers interpreter services for Deaf, hard of hearing or non-English speaking patients, family members and legal representatives free of charge. Seattle Children's will make this information available in alternate formats upon request. Call the Family Resource Center at 206-987-2201. This handout has been reviewed by clinical staff at Seattle Children's. However, your child's needs are unique. Before you act or rely upon this information, please talk with your child's healthcare provider.

© 2020 Seattle Children's, Seattle, Washington. All rights reserved.

5/20
PE750