



## Evaluations

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Evaluations are important in determining your child's skills in a variety of areas. This provides vital information in understanding your child's strengths and helps to establish the most appropriate intervention plan. Here is a list of evaluations you will likely encounter with your child in the months or years to come.

### Audiological Evaluations:

#### Behavioral Tests

Behavioral tests are hearing tests that are used with children who are old enough to either turn their head or play a game in response to a sound heard in the testing booth or through headphones. Behavioral tests provide information regarding:

- the degree or amount of hearing loss
- whether the loss is due to problems in the middle ear or inner ear, or a combination of both
- how the hearing loss will affect your child's understanding of spoken language and ability to communicate

#### Auditory Brainstem Response Evaluation (ABR or BAER)

Auditory Brainstem Response Evaluation is a sleep EEG (brain wave) hearing test, which shows the weakest sounds your child's ears can detect at various frequencies. The test is neither painful nor uncomfortable in any way, but it is necessary for the child to be asleep in order to obtain clear recordings during the test. Three or four small monitors are gently taped to the child's head, and sounds are presented through an earphone to each ear separately while a computer analyzes the changes in the brain wave pattern in response to sounds.

#### Otoacoustic Emissions (OAEs)

Otoacoustic Emissions can be used to assess the presence or absence of a hearing loss. A soft sound is presented to the ear and a sensitive recording microphone measures an "echo" in response to that sound. If the "echo" or emission is present, the outer hair cells of the cochlea (the inner structure of hearing) are known to be functional. The emission will not be present in children with middle ear problems such as fluid or congestion and/or children with a mild or greater hearing loss.

### Medical Evaluations:

#### Otolaryngology

An otolaryngologist or ENT (ear, nose, and throat doctor) completes a medical evaluation of a child's hearing system. If a hearing loss is present, this specialist may order several radiologic and laboratory studies in order to offer medical or surgical options for diagnosis and treatment.

#### Genetics

A genetic evaluation can be important in determining the cause of a child's hearing loss. This can provide important information that may be helpful in making a more definite diagnosis of a genetic cause of the hearing loss. This information may also help in decisions about treatment and management of the hearing loss.

#### Ophthalmology

While it is important that all children have periodic vision checks, for children who have a hearing loss it is especially critical to keep these evaluations up to date, as these children are very visual learners. An examination by an ophthalmologist (eye doctor) can identify any visual problems and provide appropriate treatment. In addition, the ophthalmologist may be able to identify a problem with the eyes or vision that can help

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provide further information about the cause of the hearing loss.

## **Developmental and Communication Evaluations:**

Hearing loss can have a significant impact on a child's development of speech, language, and communication skills and can have an affect on academic performance. Therefore, it is important to obtain baseline information regarding a child's developmental and communication skills by a speech/language pathologist and pediatric psychologist who is skilled in the development of children with a hearing loss. This information will be useful in

understanding a child's strengths and weaknesses, provide insight into a child's learning style, and is critical in helping to develop early intervention and educational plans.

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This information is available in Arabic, Portuguese, German, and Spanish from your provider.

For additional resources, please visit our Deaf and Hard of Hearing Program website at: [www.bostonchildrenshospital.org/dhhp](http://www.bostonchildrenshospital.org/dhhp)