

Hearing Tests for Infants and Children

Children start learning language from the moment they are born. Babies who hear well learn a lot about their world through all of the sounds around them. If your child cannot hear well, they will likely have trouble learning language, learning to talk, and learning to read.

Hearing also plays an important role in a child's social and emotional development. It is important to recognize the signs of hearing loss early so that children can receive any supports they need to be successful.

Why does my baby need to have their hearing screened?

Every year in B.C., about 100 babies are born with permanent hearing loss (approximately 1 out of every 400 births). For babies who need special care at birth, about 1 in 50 is born with permanent hearing loss.

For most babies with hearing loss, there are no obvious signs to tell us that your baby is not hearing well. It is impossible to know exactly how your baby hears by watching their responses to everyday sounds. This is why it is important that every baby have a newborn hearing screening.

What will hearing screening be like for my baby?

Hearing tests are important for newborn babies and families because much can be done if hearing loss is found early in life.

In B.C., all babies can have their hearing screened through the BC Early Hearing Program. Your baby's hearing screening may happen in the hospital before you go home or in your community soon after birth. Most babies born in a hospital are screened before they leave the hospital. If your baby did not receive a

hearing screening, contact your local public health unit.

The screening test is very safe and it will not hurt your baby. Soft sounds are played into your baby's ears, while a computer measures the responses from the ears. Screening is best done at least 12 hours after birth and with your baby resting quietly or asleep.

What can I do if I think my child is not hearing well?

Hearing loss can be hard to detect. Mild hearing loss is sometimes mistaken for other concerns, and it may cause a child to appear distracted or withdrawn. In older children, parents are often the first to notice if there is a concern.

Hearing loss can develop at any time in childhood. It is important to realize that some babies do not have hearing loss at birth but can develop it later. Even if your baby passes the newborn hearing screening, it is important to always pay attention to their awareness of sounds and early attempts to talk.

If you have concerns about your child's hearing, contact your local public health hearing clinic or your family health care provider.

See your health care provider right away if your child has any of the following:

- Ear discharge (fluid draining from the ear)
- Earache (pain in the ear)
- Bad smell from the ear
- Reddened skin around the ear
- An object in the ear
- An injury to the ear

What hearing tests will my child receive?

If your child needs further testing after screening, one or more of the following might be indicated.

Tests for babies and toddlers

- **Auditory Brainstem Response (ABR)**

Your child needs to be asleep to do this test. Sounds are presented to the ears using small earphones. Small sensors are placed on the forehead and behind each ear to measure response from the hearing nerve. The test can be done as your baby is asleep naturally, or for older children with a mild sedation.

- **Visual Reinforcement Audiometry (VRA)**

This test is mostly used for babies over 6 months of age. This test uses your baby's natural head turn to look for sounds in their environment. Your baby is taught to turn to sounds using toys that light up.

- **Conditioned Play Audiometry**

This test is mostly used for children over 3 years of age. Your child is taught to play a game, such as putting a block into a bucket, every time they hear a sound.

Tests for children 4 years of age and older

- **Pure Tone Audiometry**

Your child responds to sounds by raising a hand or pressing a button. Sounds at different volumes and pitches are presented through headphones.

- **Speech Audiometry**

Your child will either repeat words or point to pictures. This test can be combined with pure tone audiometry to give a more complete picture of your child's hearing.

Tests for all ages

- **Tympanometry**

This test measures the movement of the eardrum and detects fluid in the middle ear. This test can also detect other problems of the middle ear.

- **Otoacoustic Emissions (called OAEs)**

A small, soft earphone is placed into the ear and plays sounds. The inner part of the ear called the cochlea makes an OAE response that we can measure. Present OAEs usually mean good hearing.

Is hearing loss temporary or permanent?

Hearing loss can be temporary or permanent. Most hearing loss in young children is temporary and medically treatable.

A test by an audiologist will determine if your child has hearing loss and what type of hearing loss it is. An audiologist is a person who has special training in hearing testing and treatment.

For More Information

For information on hearing loss in children, see [HealthLinkBC File #71a Hearing Loss in Children](#), contact your local public health office, or visit the BC Early Hearing Program, Provincial Health Services Authority at www.phsa.ca/our-services/programs-services/bc-early-hearing-program.