

There seem to be many types of hearing tests. What do all these different tests do and what do they mean?

You're right. There are many types of tests to evaluate different parts of the ear. Different tests are used for different age groups.

Tests for all ages:

- **Tympanometry:** Tympanograms measure the movement of the eardrum. This is the most sensitive test for detection of middle ear fluid and other problems of the middle ear. However, this test does not show whether the hearing is normal.

Tests for infants:

- **Visual Reinforcement Audiometry (VRA):** This hearing test is typically used for infants over six months of age. This test takes advantage of your baby's natural head turn to look for the source of sounds. It involves teaching your baby to turn to sounds by reinforcing the head turn with toys that light up. Sounds are presented through little plugs that fit in the ear canal, through headphones and/or

speakers. Behavioural Observation Audiometry (BOA): BOA is a test used to observe hearing behaviour to sound when the head turn test (VRA above) is not possible. Additional testing is often necessary.

- **Otoacoustic Emissions (OAE):** This is a test that uses a tiny, flexible plug that is inserted into the ear canal. Sounds are sent through the plug into the ear. A microphone in the plug records the otoacoustic emissions (responses) from the inner ear in reaction to these sounds. When the emissions are present it usually means that the hearing is normal. There may be many reasons why we are not able to measure emissions, including hearing loss.

Tests for toddlers:

- **Conditioned Play Audiometry:** This hearing test is made into a game. Sounds at different pitches are presented through headphones. The audiologist will ask your child to do something with a toy (e.g., throw a block into a bucket) every time your child hears the sound. This test relies on the cooperation of your child.

Tests for infants and toddlers:

- **Auditory Brainstem Response (ABR):** This is a sleeping hearing test that measures an electrical response of the inner ear and auditory nerve. Small disk-shaped sensors are placed on the forehead and behind the ears, and insert plugs are put in the child's ears. Sounds are presented through the plugs, and the responses of the inner ear and auditory nerve are recorded by the sensors. The test can be done either in natural sleep or with the use of a mild sedative, along with sleep deprivation techniques.

Tests for older children (over 4 years):

- **Pure Tone Audiometry:** Pure tone testing requires your child to respond to sounds by raising a hand or pressing a button. Sounds at different volumes and pitches are presented through headphones.

Contact information:

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Different Types of Hearing Tests

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