

Explanation of Results for SJSU Hearing Screening for Children

The voluntary children's hearing screening testing procedure of San Jose State University includes two different tests. The first test involves children listening to tones under headphones at a very low level and raising their hand in response. This is called Audiometry. For younger children, the task is completed by dropping a block in a bucket in response to the tone. This is called Play Audiometry. The second test involves testing the integrity of the middle ear. This is called Tympanometry. Neither test is invasive and the tests are made simple and fun for the children.

Audiometry is performed as a Pass/Fail process at a level suggested by guidelines from the American Speech and Hearing Association. If the children hear at this low level, they pass the test. If they do not hear, they are referred for further testing in a more reliable environment, such as their pediatrician, school nurse, or an audiologist.

Tympanometry tests the movement of the eardrum. If it moves as expected, they pass the test. This is called a Type A result. If it does not move as expected, in this age population, the most typical reason is fluid in the middle ear. This is often called a Type B result. If children are referred for Type B, they are referred to their physician to see if they have fluid in their middle ear.

There are four possible outcomes to a screening.

- 1) Children pass both tests, in which case they are a pass.
- 2) Children pass the audiometry, but fail the tympanometry, in which case they are referred to a physician, but do not need to retest their hearing.
- 3) Children fail both tests in which case they are referred to a physician to check the status of their middle ear and then we highly recommend a hearing retest to verify that is why they did not hear the day of the screening.
- 4) They fail the hearing screening (audiometry) but pass the middle ear test (tympanometry). In this case, we highly recommend they receive another hearing test as soon as possible to verify that they do not have hearing loss.

A large percentage of children who do not pass a hearing screening will pass the next time they take a test. However, this procedure can identify children with hearing loss and we strongly recommend follow up.