

Measuring Hearing

Deaf Children Australia

How is hearing measured?

Hearing is measured by an Audiologist.
An audiologist is a person who has qualifications in audiology plus one year of supervised practice in audiology, which enables them to work in the area of hearing management and measurement. They may work in hospitals or at hearing clinics such as Australian Hearing. An audiologist measures the hearing loss and plots a graph called an audiogram. The audiologist will use this information and possibly some other tests to understand what type of hearing aids will suit a person or if a cochlear implant may suitable.

An audiogram is a way to visual hearing through a graph. The person who is having their hearing tested listens to different sounds at different frequencies (pitch) and at different intensities (loudness.) During a hearing test tones are played at one frequency at a time. The soft tone that a person can hear is marked on the audiogram.

Sound is measured in decibels (dB).

•10dB to 20dB is about the same loudness as wind in the trees
•60dB is about the same loudness as everyday conversation,
•90dB is about the loudness of a lawn mower
•120dB is as loud as a jet engine (and sometimes rock concerts!)

The right ear is indicated with an "X" and the left ear with an "0." Figure 1 shows a completed audiogram.

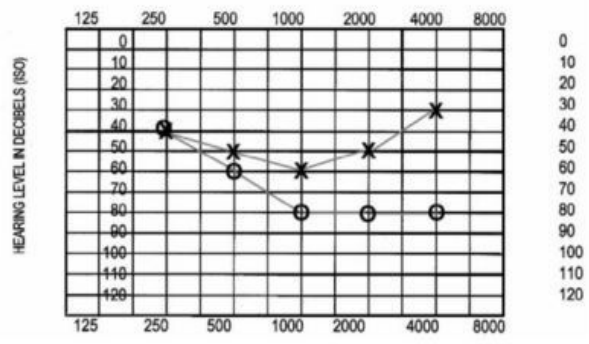
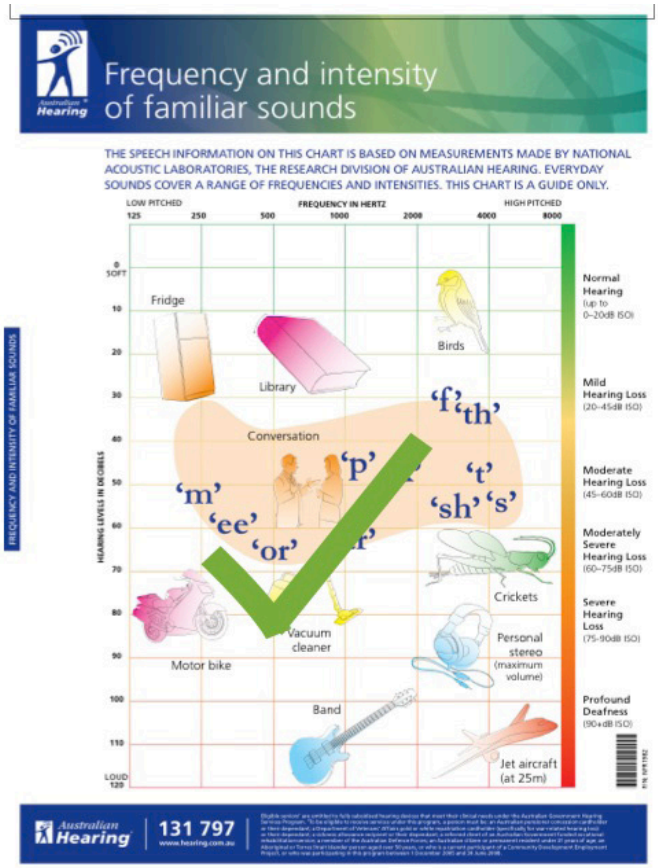


Figure 2: The audiogram in figure two shows where the sounds of speech are on the audiogram. Different sounds in our speech have different pitch and loudness. For example, the "s" sound in the word "cats" is high pitch and fairly soft. The "o" sound in the word "bow" is low in pitch and fairly loud. Sometimes deaf people say they can hear, but not understand the words. This is because they are hearing the louder, low frequency sounds, and not the softer high frequency sounds of each word. They only hear part of each word.



Can families have a copy of the child's audiogram?

Yes. The family can ask the audiologist for a copy. It is a good idea to do this after each hearing test so that families have a record of their child's hearing levels through the years.

How often should a child's hearing be tested?

The deaf child's audiologist will be able to advise on how often the child's hearing should be tested. Generally older children's hearing is tested once per year and younger children's hearing may be tested more often, but there is no hard and fast rule. If the loss is progressive, more frequent testing should be conducted.

What is a hearing loss like?

All deaf children hear differently, depending on the degree of their hearing loss and the difference in their ability to be able to detect different frequencies. Deaf children who have been deaf from birth or from a very early age, have no concept of what it is like to have normal hearing. They don't know what normal hearing is and may never fully understand the difference between how they hear and how other people hear.
A video, Understanding Hearing Loss produced by Griffith University is available from Deaf Children Australia for borrowing or can be purchased from Deafness Resources Australia at www.aceinfo.net.au This video simulates what it is like to have a hearing loss.



Websites

National Deaf Children's Society
www.ndcs.org
This is a fantastic website with lots of information on childhood hearing loss.
It has a wealth of topics for families to explore.

Understanding Audiograms
www.audiology.org/consumer/guides/uya.php
This site gives a brief overview of an audiogram. It also has links to other information about hearing loss
Hearing Tests Explained

www.betterhealth.vic.gov.au/bhcv2/bhcarticles.nsf/pages/
This site discusses the different types of hearing tests.

For further information about Deaf Children Australia.

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Deaf Children Australia uses the term 'deaf' to refer to all degrees and types of hearing loss.
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