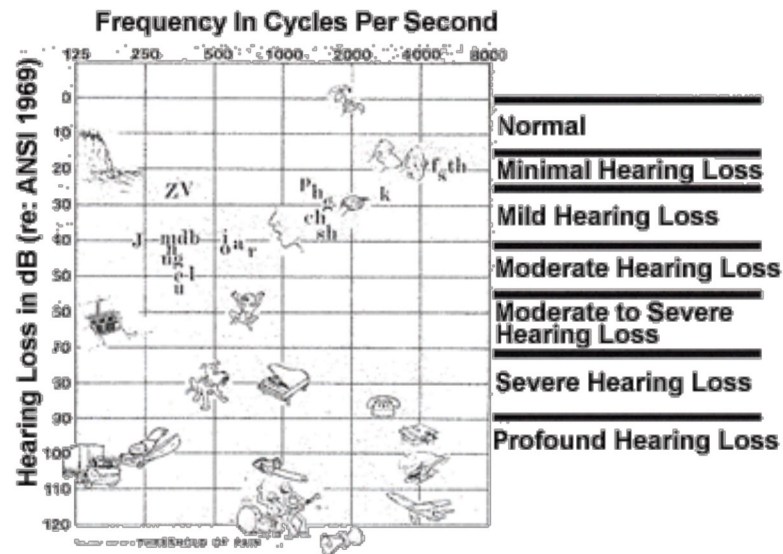


# How Do You Determine Degree Of Hearing Loss And What Does This Mean For A Child?

An audiologist plots a child's responses to sounds on a graph called an audiogram. Test sounds vary in pitch from low to high pitch, measured by frequency in cycles per second.

These sounds also vary in loudness (measured in decibels - dB). How loud a sound must be in order to be just barely heard represents the degree of hearing loss.



## 0 - 15 dB: Normal Hearing

Responses within this range suggest that a child has normal hearing ability. When understanding their ability to hear/understand speech it is important to consider their listening environment. A child with normal hearing ability can still have difficulty understanding in background noise at home or in school. Because a child is still learning language they need better hearing and a quieter environment than an adult to understand speech.

## 16 - 25 dB: Minimal Hearing Loss

- ~ has difficulty with quiet or distant speech
- ~ can miss up to 10% of the speech signal when the speaker is more than 3 feet away or there is background noise
- ~ unaware of subtle conversation cues
- ~ tires in listening situations and becomes restless
- ~ has implications for learning language and following verbal instruction in the classroom can be conductive or sensorineural (temporary or permanent)
- ~ may require hearing aid amplification
- ~ may require special classroom amplification and instruction

## 26 - 40 dB: Mild Hearing Loss

- ~ may miss 25-40% of the speech signal
- ~ depends on visual cues to understand speech in background noise
- ~ appears very inattentive, "daydreams"
- ~ becomes very tired in situations where just listening is involved
- ~ needs hearing aid amplification and classroom amplification
- ~ needs referral for follow up with a speech language pathologist

## 41 - 55 dB: Moderate Hearing Loss

- ~ misses 50-100% of the speech signal, depending on the listening situation
- ~ requires visual cues in conversation
- ~ will have delayed language, limited vocabulary and imperfect speech
- ~ communication is significantly affected and socialization becomes an issue
- ~ requires hearing aid amplification and classroom amplification
- ~ special education / resource may be required depending on when the loss is identified and treated
- ~ speech - language pathology services needed

## 56-70 dB: Moderate Severe Hearing Loss

- ~ normal conversation must be on a one - to - one basis, with no background distractions
- ~ visual cues essential during communication
- ~ child will have delayed language, poor speech intelligibility and atonal voice quality
- ~ requires hearing aid amplification and classroom amplification
- ~ resource help in the mainstream classroom
- ~ speech - language pathologist to follow

## 71 - 90 dB: Severe Hearing Loss

- ~ with proper amplification, should be able to identify environmental sounds and detect sounds of speech
- ~ speech and language will be significantly delayed
- ~ may choose a Total Communication approach to language and prefer the company of other children with hearing loss
- ~ requires hearing aid amplification
- ~ may need placement in a class for the hard-of-hearing, for some subjects
- ~ may benefit from personal FM system

## 91 dB - > : Profound Hearing Loss

- ~ more aware of vibrations than tonal patterns
- ~ rely heavily on visual information for learning and communication
- ~ adopt Total Communication or Sign Language
- ~ education in program for the deaf to emphasize language skills and academics
- ~ amplification choices include hearing aids, personal FM systems, vibrotactile hearing aids and cochlear implants

## Unilateral hearing loss One normal hearing ear and the other ear with hearing loss:

- ~ difficulty with faint or distant speech
- ~ difficulty localizing sound and voices
- ~ difficulty in background noise
- ~ difficulty detecting speech from the 'bad' ear, especially in group discussion
- ~ often treated as though they have 'selective' hearing
- ~ tire in noisy listening situations, may appear inattentive or frustrated
- ~ may benefit from personal or classroom FM system
- ~ in quiet settings, a CROS hearing aid may be of benefit
- ~ need favourable seating and lighting
- ~ educational services as the needs arise