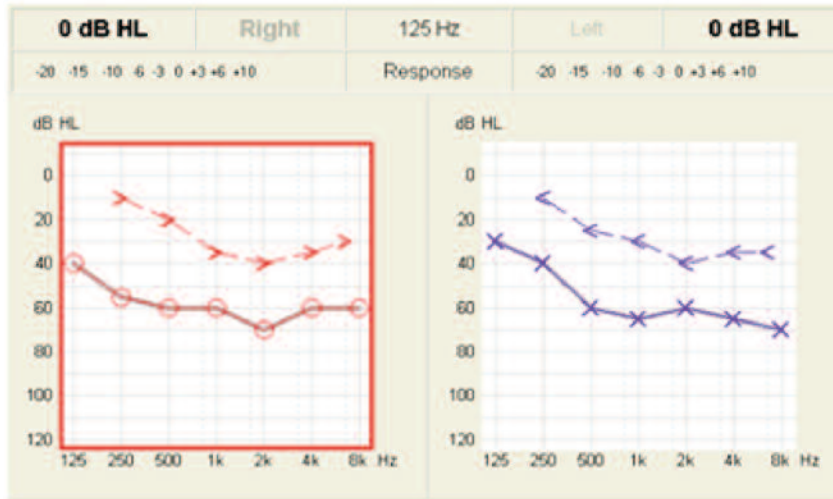


Combination Hearing Loss



If air conduction and bone conduction measurement values are both above 20 dB HL and the difference between both exceeds 15 dB, this is called a mixed hearing loss. Such hearing loss is treated according to the severity, the given anatomic structures and other possible influence factors. Therefore, all of the hearing solutions mentioned previously might apply here:

- Conventional hearing instruments
- Bone conduction hearing instruments
- Bone-anchored hearing instruments (BAHA)
- Cochlear implants (CI)

Selecting the right method for treatment depends on the indication range of each instrument, according to the level of the given hearing loss.

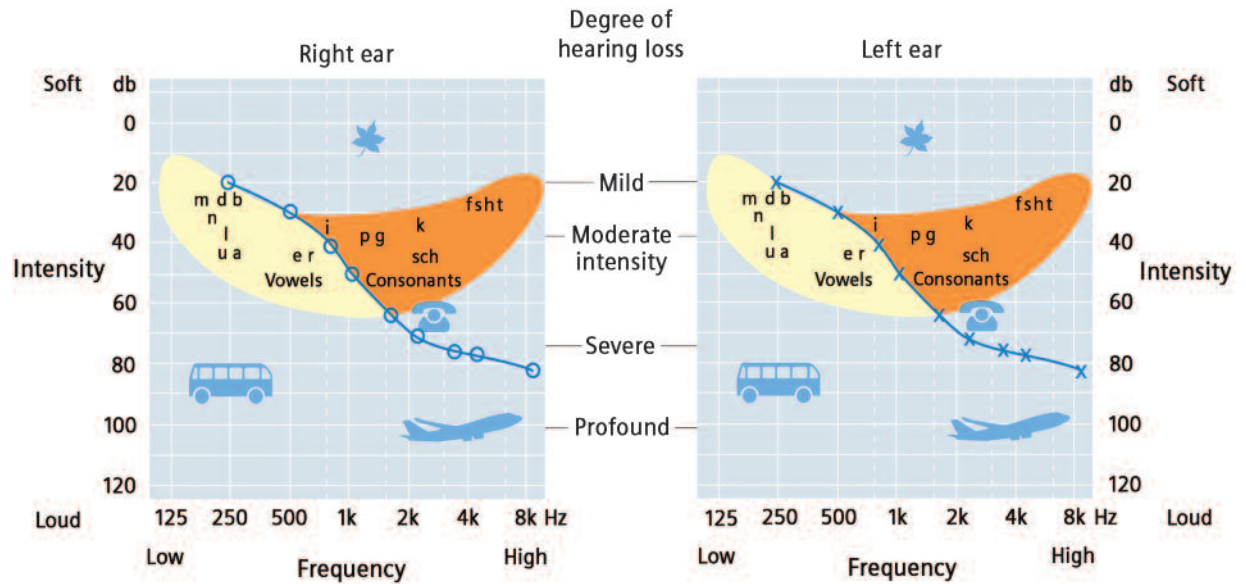


Fact Sheet

Combination hearing loss.

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How to Read an Audiogram



Different levels of hearing loss are referred to as degrees, depending on the severity of impairment.

Degree of Hearing Loss	Hearing Threshold (in decibels, dB)	Ability to Hear Speech
None	0–25 dB	No perceptible difficulty.
Mild	26–40 dB	Difficulty hearing soft speech and conversations, but can understand in quiet environments.
Moderate	41–55 dB	Difficulty understanding speech, especially in the presence of background noise. Higher volume levels are needed for hearing TV or radio.
Moderate to severe	56–70 dB	Clarity of speech is considerably affected. Speech must be loud and possible difficulty in group conversations
Severe	71–90 dB	Normal speech is inaudible. Either difficulty with loud speech or comprehension only through shouted or amplified speech.
Profound	91+ dB	Even amplified speech is unclear.

An audiogram is a chart a hearing test is marked on. The degree of hearing loss is measured in dB/HL for defined key frequencies. The frequency is measured in Hertz. Curves displayed in dB HL generally describe the individual hearing threshold of a person compared to the normal hearing average, which is always related to 0 dB. Due to inter-individual differences, all thresholds up to 20 dB HL are considered as normal.

Symbols are placed on the audiogram that show the person's air conduction and bone conduction thresholds for each key frequencies. The audiogram

shows the softest level at which a sound is perceived. This is also referred to as the hearing threshold. Different symbols are used to distinguish between air conduction and bone conduction measurements as well as the side the measurement refers to.

You can see the level and frequencies of different sounds in the speech-banana. Vowels are low frequency sounds with a higher volume than consonants which are soft high frequency sounds. The vowels carry the loudness impression of speech whereas the consonants carry the meaning: e.g., house or mouse.

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