Simple N Informative

SNIPPET

Parent-to-Parent Education Tools

What is an Audiogram?

Resources:

How to read an audiogram

About hearing

Types of hearing tests

Understanding results

- An **audiogram** is a chart that shows how well a person hears different sounds. Each symbol marks the softest sound they can hear at a certain pitch (see Figure 1).
- **Pitch (or frequency)** is measured in **Hertz (Hz)** and is displayed on the horizontal axis, moving from low pitches on the left (like a foghorn or bass singer) to high pitches on the right (like a bird singing or a soprano singer). This layout is similar to the keys on a piano.
- **Loudness (or intensity)** is measured in decibels hearing level **(dB HL)** and is shown on the vertical axis, starting with softer sounds at the top and increasing to louder sounds at the bottom—like turning up the volume on a speaker.
- Speech sounds use different pitches and volumes. For example, "n" is low and louder, while "f" is high and softer. On the audiogram, these sounds form a shape called the "**speech banana**," which shows where most conversational speech happens. In Figure 1, it's the gray shaded area.
- During a hearing test, sounds are played through headphones. The softest sound heard at each pitch is marked on the audiogram.
  - Red "**O**" represents hearing in the right ear.
  - Blue "**X**" represents hearing in the left ear.
- Testing may also include bone conduction, where sound is sent directly through the skull. These responses are shown with symbols like **[** or **<** for the right ear and **]** or **>** for the left ear.
- The audiogram shows which sounds a person can and can't hear. Sounds above the symbols are too soft to hear, and sounds below the symbols are loud enough to hear. For example, in Figure 2:
  - At 1000 Hz, the left ear hears at 50 dB HL; the right ear hears at 40 dB HL.
  - The right ear has better sensitivity at that pitch, detecting softer sounds.
  - The sound "ch" is audible to the right ear but not to the left ear.
- The **layout or configuration of hearing loss** describes how hearing changes across pitches (descriptions below explain some of the examples in Figure 3):
  - A **sloping** configuration means better hearing at low pitches and worse hearing at high pitches.
  - A **rising** or **reverse slope** configuration is the opposite—more hearing in the highs than lows.
  - A **cookie-bite** configuration shows hearing in the very low and very high pitches, with less hearing in the middle range.
  - Some hearing loss configurations are **flat,** indicating the same amount of hearing loss for low and high tones.

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What is an Audiogram?

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Figure 1

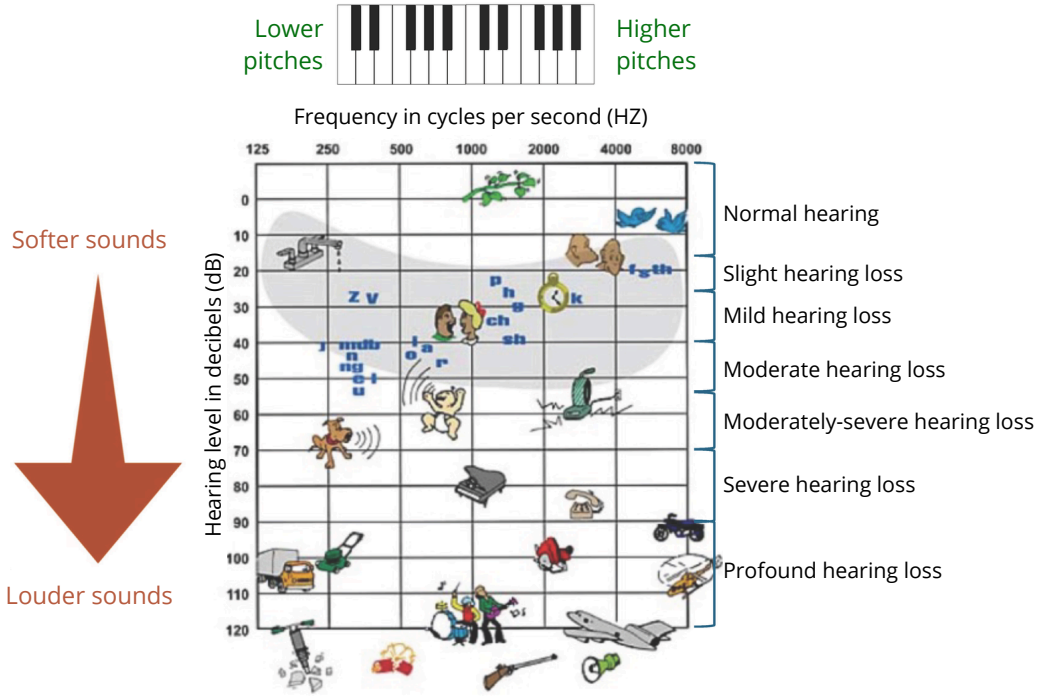


Figure 2

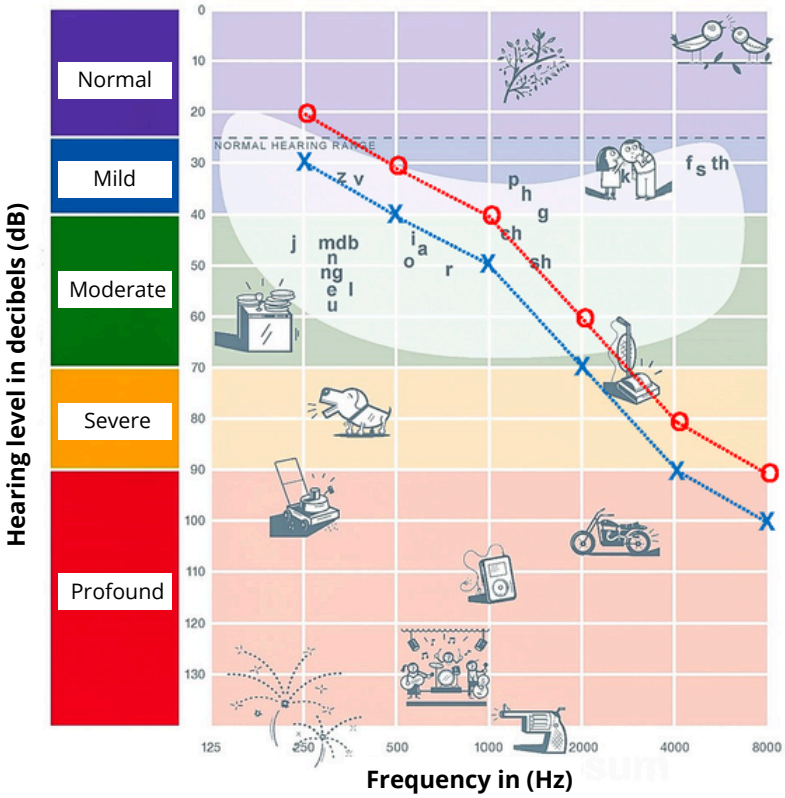
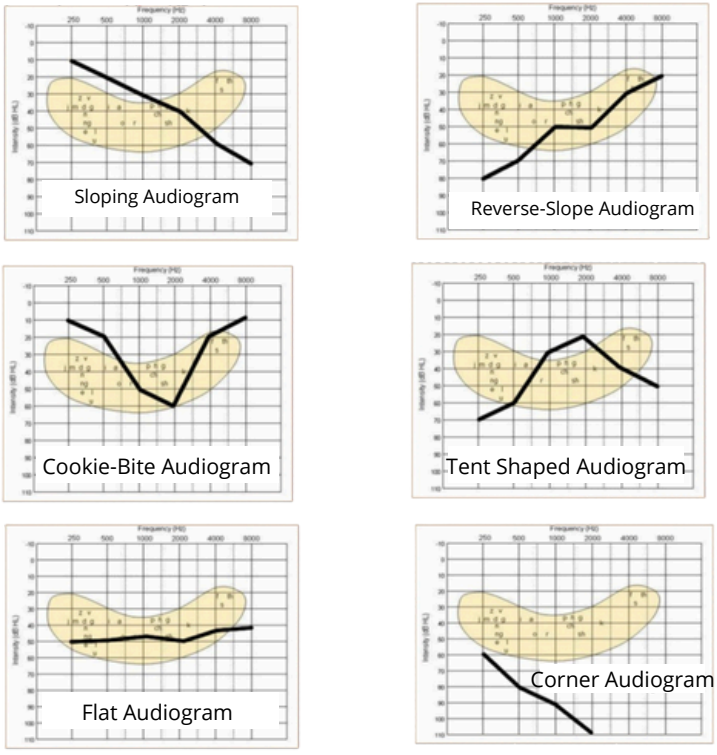


Figure 3



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