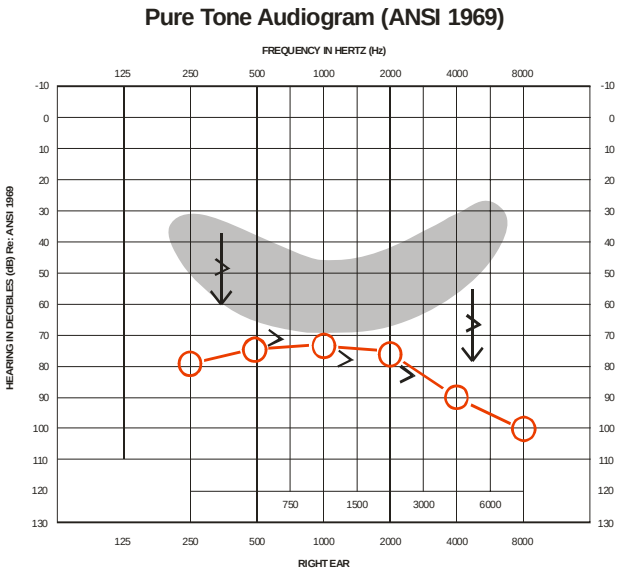
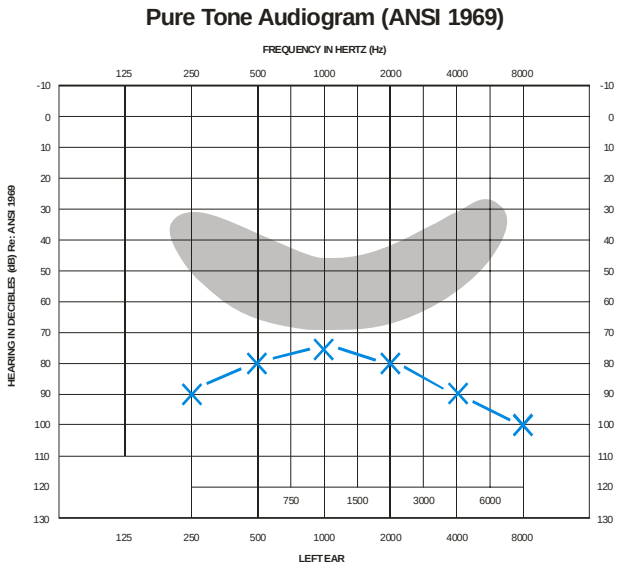
How to Read an Audiogram

A pure tone audiogram is a graph that shows the pitches (frequencies) across the top and the loudness (intensity) down the side. This graph is used to register the loudness at which different sounds need to be in order to be heard. An audiologist fills in the graph using symbols to mark the points at which sounds begin to be heard.

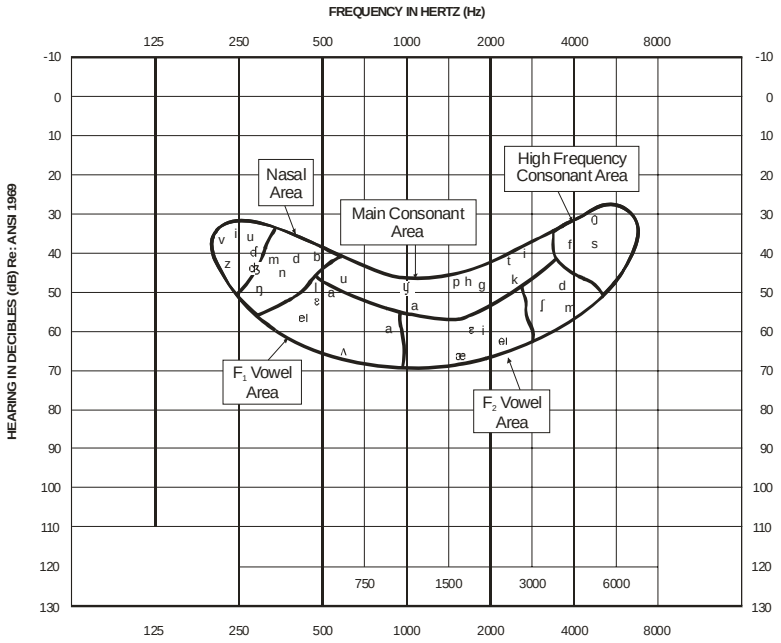




Symbols:

× or □	Left ear measurements. Usually marked blue ink.
○ or △	Right ear measurements. Usually marked in red ink.
< > or] [	To mark bone conduction thresholds.
*, ●, or SF	Information not available

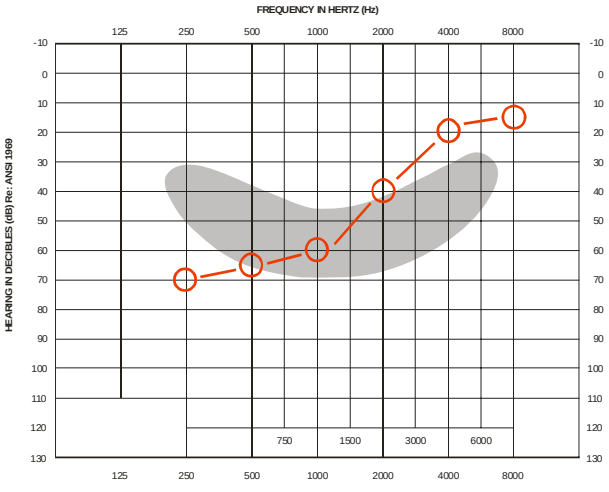
Loudness is measured in decibels (dB) and appears in the audiogram in a top down count from 0 dB to 120 dB. The numbers in the horizontal axis indicate the pitches, i.e. the frequencies (cycles per second) of different sounds. Frequencies are measured in Hertz (Hz). Low pitched sounds (e.g. middle C on the piano) have frequencies around 250Hz. A high-pitched sound can reach 8000Hz. Pitches are particularly important for speech. Most vowels are low-pitched sounds, whereas consonants such as “s”, “t”, “f” and “sh” are high-pitched sounds. All other consonants have middle ranged frequencies. The "speech banana" on the chart shows where most conversation occurs in terms of loudness and pitch in the English language:



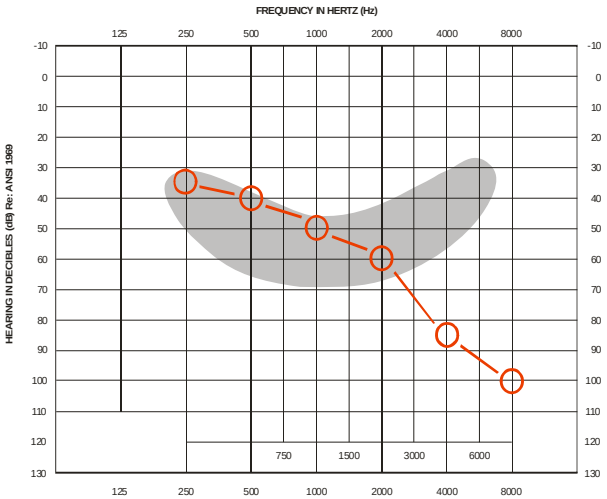
Audiogram configurations

The configuration of an audiogram will tell you which sounds are best heard. A 'sloping' audiogram means the person can hear low pitched sounds but not high pitched sounds. Inversely a 'rising' configuration shows that high pitched sounds can be better heard than low pitched sounds.

Rising Configuration



Sloping Configuration



An audiogram is considered 'flat' when somebody needs the same amount of loudness to hear a sound, regardless of the pitch of the sound.

Flat Configuration