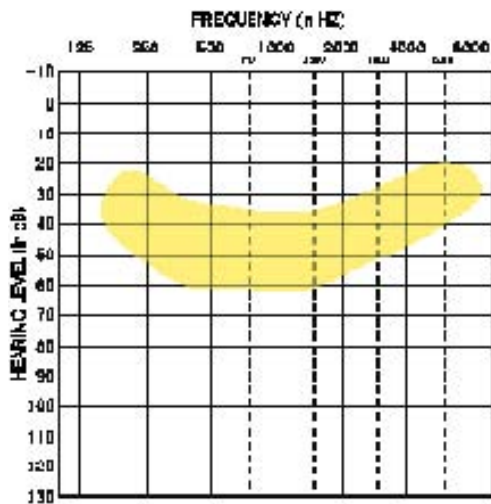
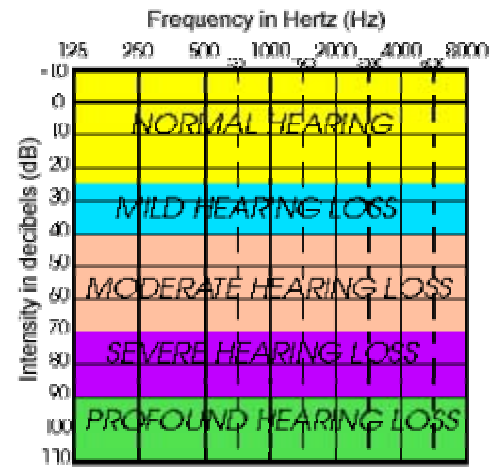


## Hearing Loss Defined: Degree and Configuration

Hearing losses are usually categorized in terms of severity of the loss (degree) and configuration (shape of the loss).

*Note: There is not complete consensus among professional organizations on the precise definitions for degree of hearing loss, and therefore, there may be minor variability in decibel levels associated with various categories. The chart below provides the definitions according to the American Academy of Audiology.*

| Category of Hearing            | Decibel Level on Audiogram |
|--------------------------------|----------------------------|
| Normal hearing or minimal loss | -10 to 24 dB               |
| Mild Loss                      | 25 to 40 dB                |
| Moderate Loss                  | 40 to 70 dB                |
| Severe Loss                    | 71 to 90 dB                |
| Profound Loss                  | 91 dB +                    |

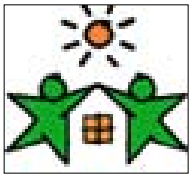


### Audiograms

When infants are older than 6 months, efforts are made to obtain behavioral thresholds. The pediatric audiologist will measure the infant's hearing and plot a graph called an audiogram. An audiogram is a graph used to show the softest sounds that a person can hear at different pitches.

The graph shows the range of sounds included in typical speech (yellow section). Different sounds in our language vary in their pitch and loudness. For example, the "s" sound you use in the word "cats" is high in pitch and fairly soft. In contrast, the "o" sound in "bow" is low in pitch and fairly loud.

When an audiologist measures a child's hearing, symbols are used to represent the response of the right ear (▶) and the left ear (X) across pitches known to be important for hearing the sounds of speech (500 Hz – 4KHz). The responses for each ear are connected on the audiogram, and they take on a shape that signifies whether the child can hear all pitches at about the same level (flat configuration), or whether some pitches (such as the high frequencies) are more difficult to hear than low pitches (sloping configuration).



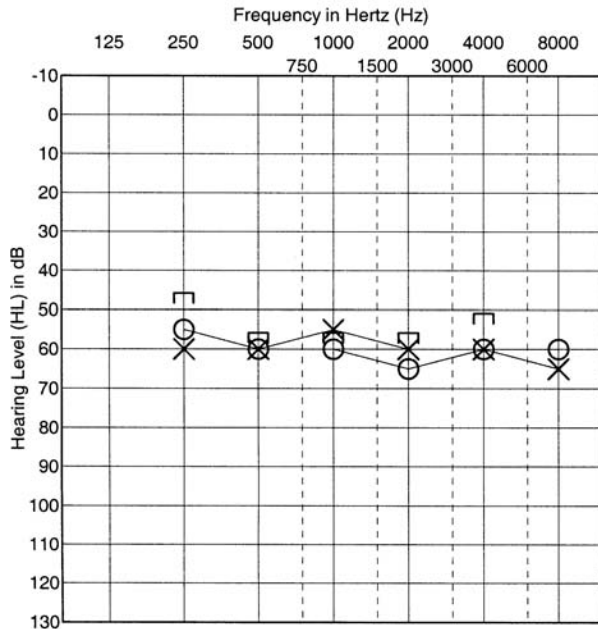
# A Sound Foundation in the Medical Home

PediaLink resource page

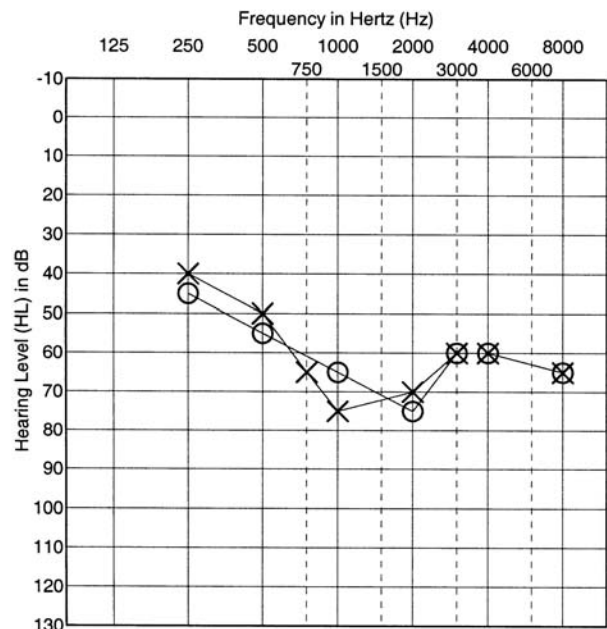
## Hearing Loss Configurations

Substantial differences are found in the audiological characteristics of children vs. adults. Most adults present with sloping or u-shaped configurations, whereas children's hearing losses are distributed across six configuration categories (i.e., sloping, rising, flat, u-shaped, tent shaped, and other).

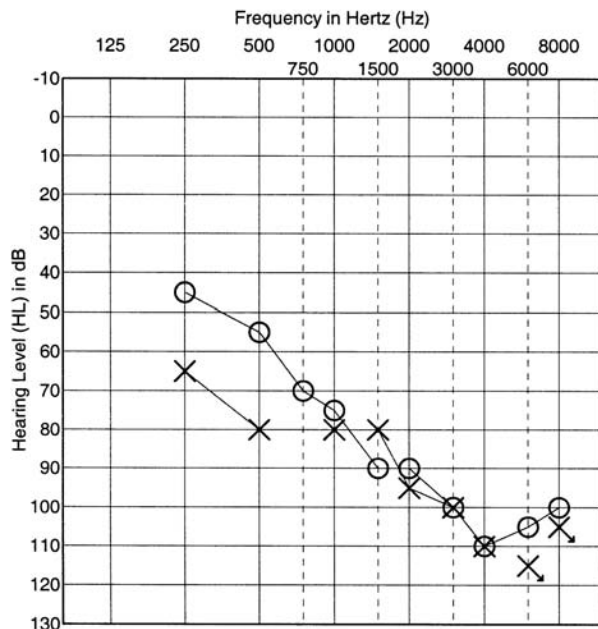
Some of these common configurations of hearing loss in childhood are pictured below.



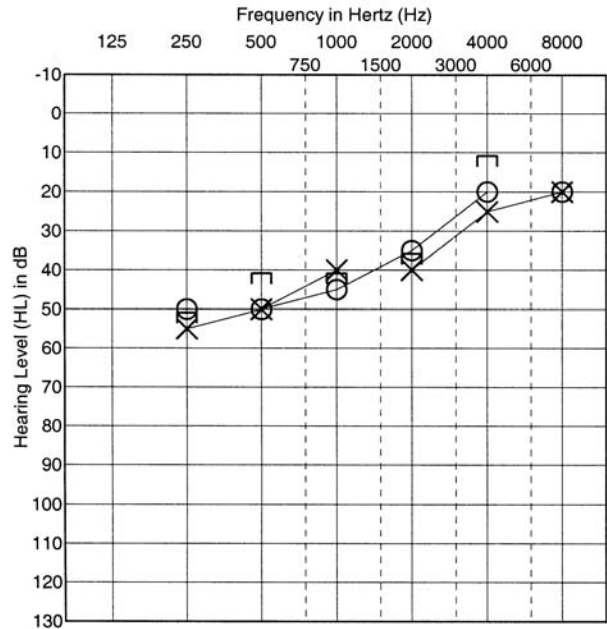
Configuration 1. **Flat**, moderate, bilateral sensorineural hearing loss



Configuration 2. **U-shaped**, moderately-severe, bilateral hearing loss.



Configuration 3. Sloping, moderate-to-profound, bilateral hearing loss.



Configuration 4. Rising, moderate-to-mild, bilateral sensorineural hearing loss.

Pitman, A.L. and Stelmachowicz, P.G. (2003). Hearing loss in children and adults: Audiometric configuration, asymmetry and progression. *Ear and Hearing*, 24 (3) 198-205.