

Understanding Hearing Testing and Audiograms

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Hearing Testing and Audiograms

- Understanding how we hear
- Signs of hearing loss
- How to find an Audiologist
- Evaluating your hearing
- Understanding the results

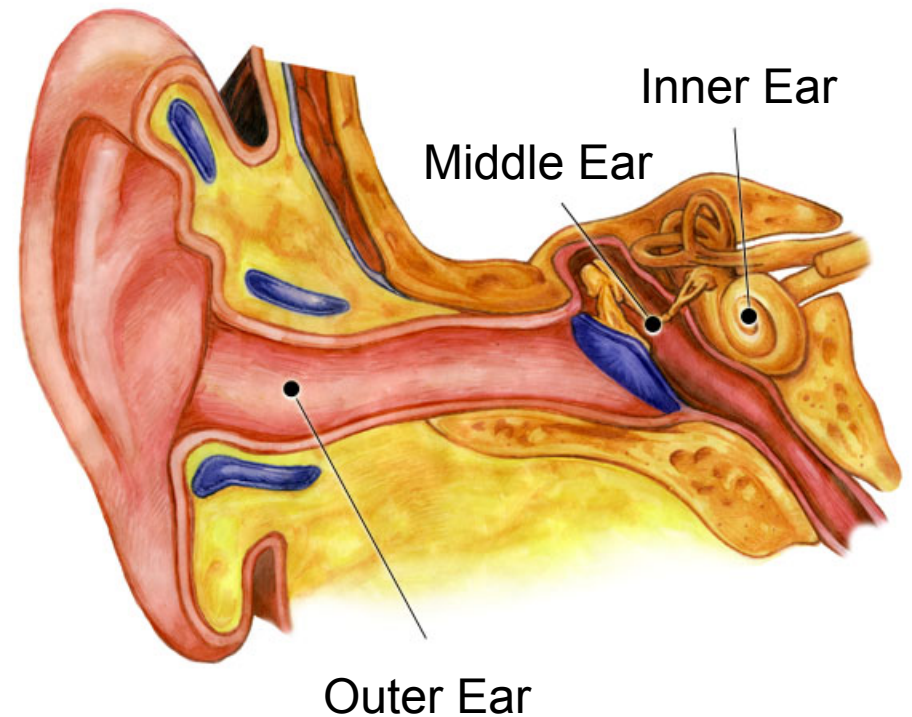
How We Hear

How we hear

The ear is made up of 3 parts:

- Outer ear
- Middle ear
- Inner ear

Each of these three parts has a special function that allows us to hear



Types of hearing loss

1. Conductive hearing loss

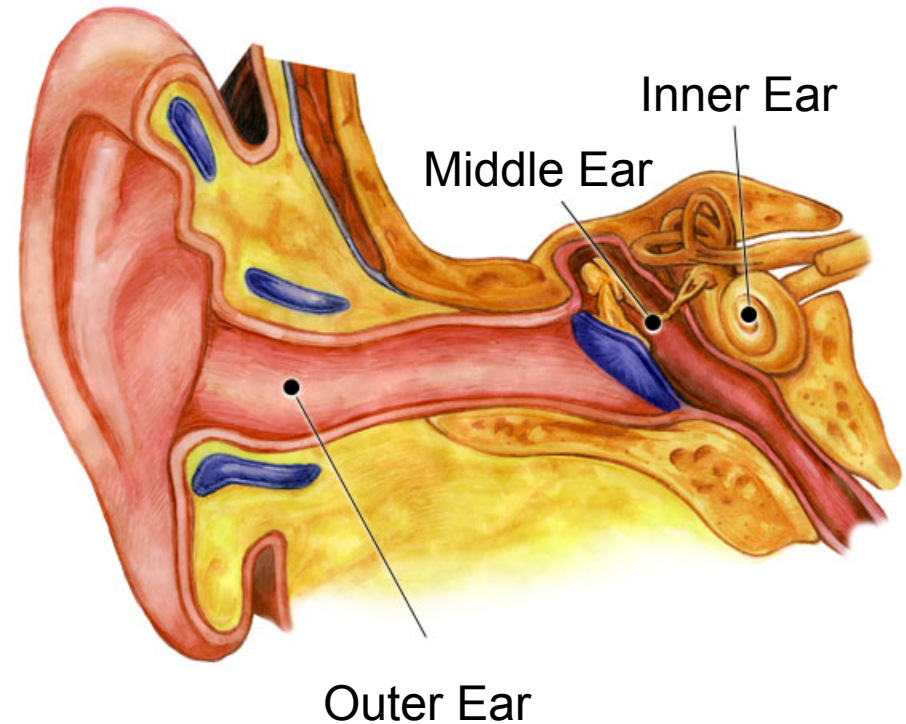
Sound is blocked in the outer or middle ear

Causes:

- Excessive earwax
- Damaged eardrum
- Ear infection or fluid in the middle ear
- Stiffness in the bones of the middle ear (otosclerosis)

Solution:

- Most often medically treated with high success
- Very successful with hearing aids if unable to treat medically



Types of hearing loss

2. Sensorineural hearing loss

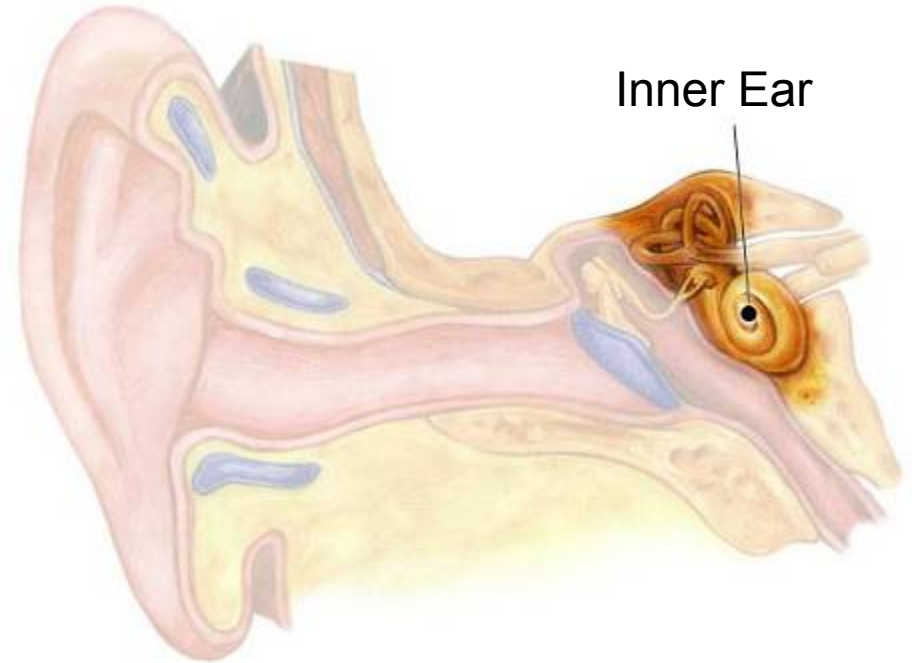
Inner ear hair cells or hearing nerve is damaged and cannot send complete signals to the brain

Causes:

- Aging
- Noise exposure
- Hereditary factors

Solutions:

- Cannot be corrected with medicine or surgery
- Hearing aids can be very helpful



Signs of Hearing Loss

7 Reasons Why People Don't Get Their Hearing Tested

- I can hear fine-as long as you look right at me or speak up
- Too many people mumble, and isn't it hard for everyone to hear in background noise?
- I have "selective hearing"
- My doctor said I seemed to hear fine in the office
- I don't want my boss to know my hearing is going. Plus, I'll look old if I get hearing aids
- My friends say hearing aids don't work, and besides, they're so expensive
- Who has the time?

7 Reasons Why You Should Get Your Hearing Tested

- To rule out a serious medical condition
- To reduce the risk of brain shrinkage and memory problems
- To decrease the chance of mental decline from dementia
- To improve productivity at work-and increase your paycheck
- To keep active and prevent the gradual onset of social isolation and depression
- To reduce stress and fatigue
- To enhance the lives of your family members, coworkers, and friends

Signs of hearing loss

- People around you seem to mumble
- You often ask others to repeat themselves
- Difficulty following conversations when in background noise or when in groups



Signs of hearing loss

- Children and women's voices are difficult to hear
- Need to turn up TV or radio louder
- Cannot hear high pitched sounds such as birds, crickets and bells
- Can hear but cannot understand



Finding an Audiologist

Finding an Audiologist

- Ask friends or family!
- ENT referral/insurance
- Online reviews
- Manufacturer recommendations
- Direct Mail
- Costco/Sam's Club



Evaluating Your Hearing

Evaluating your hearing

Your hearing expert

- Specializes in making the process simple and easy for you
- Helps you understand your hearing loss
- Matches your hearing loss to the best solution



Evaluating your hearing

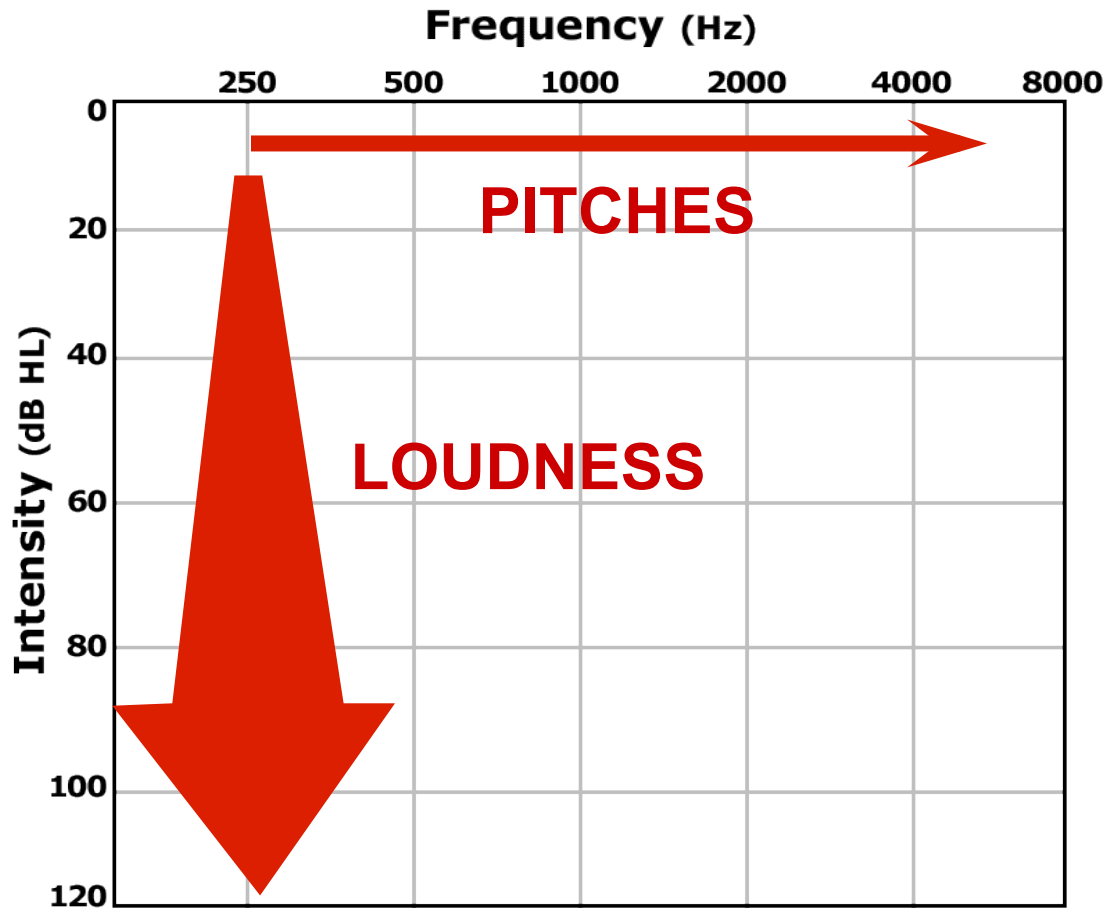
Your hearing evaluation includes:

- A quick assessment of your family's and your hearing history
- An ear exam to rule out ear wax or infection
- A hearing test to determine what you can and cannot hear
- Review of your hearing test results
- A discussion of hearing solutions

The more you know, the better decisions you can make



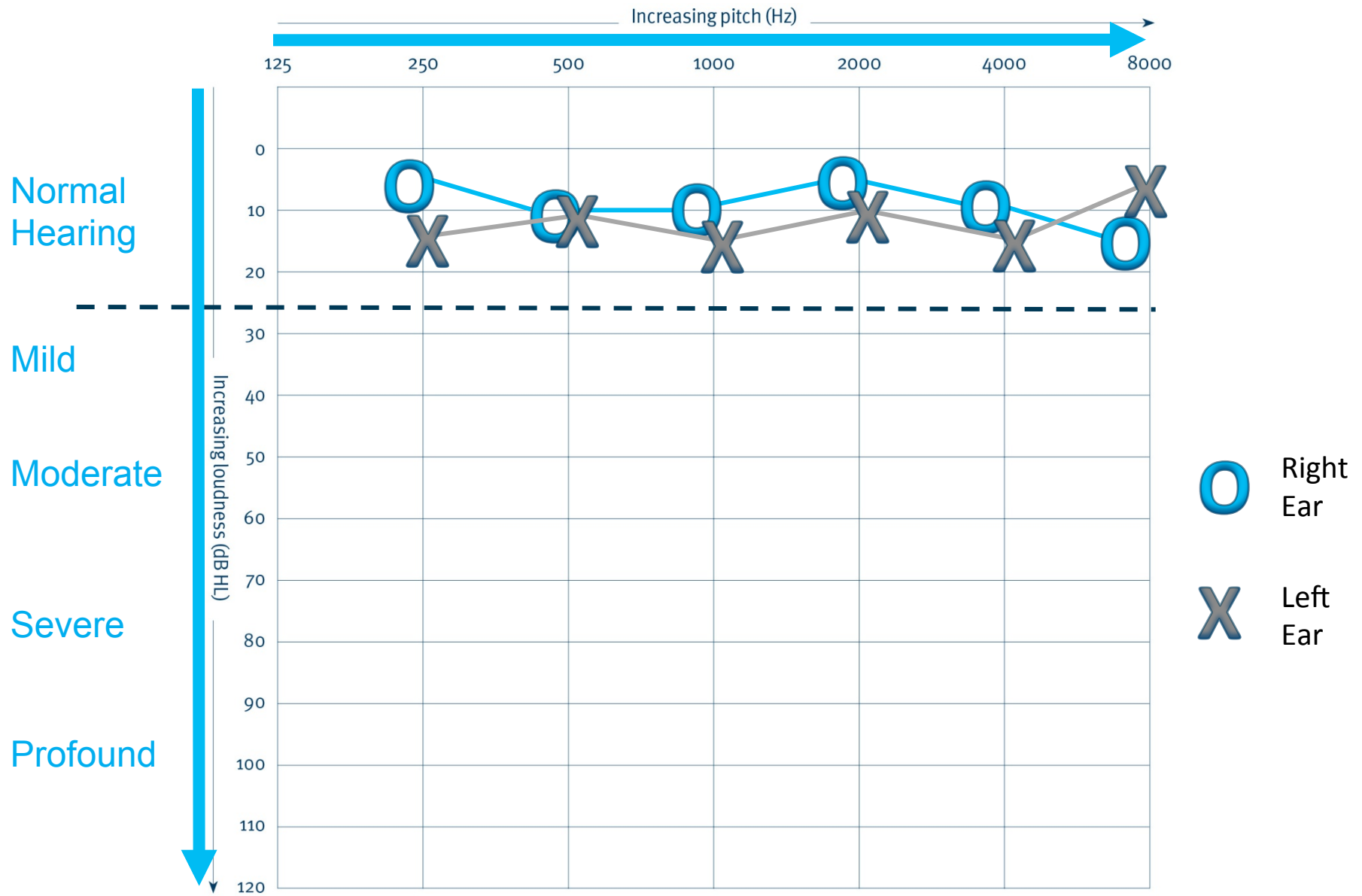
Hearing Test - Audiogram



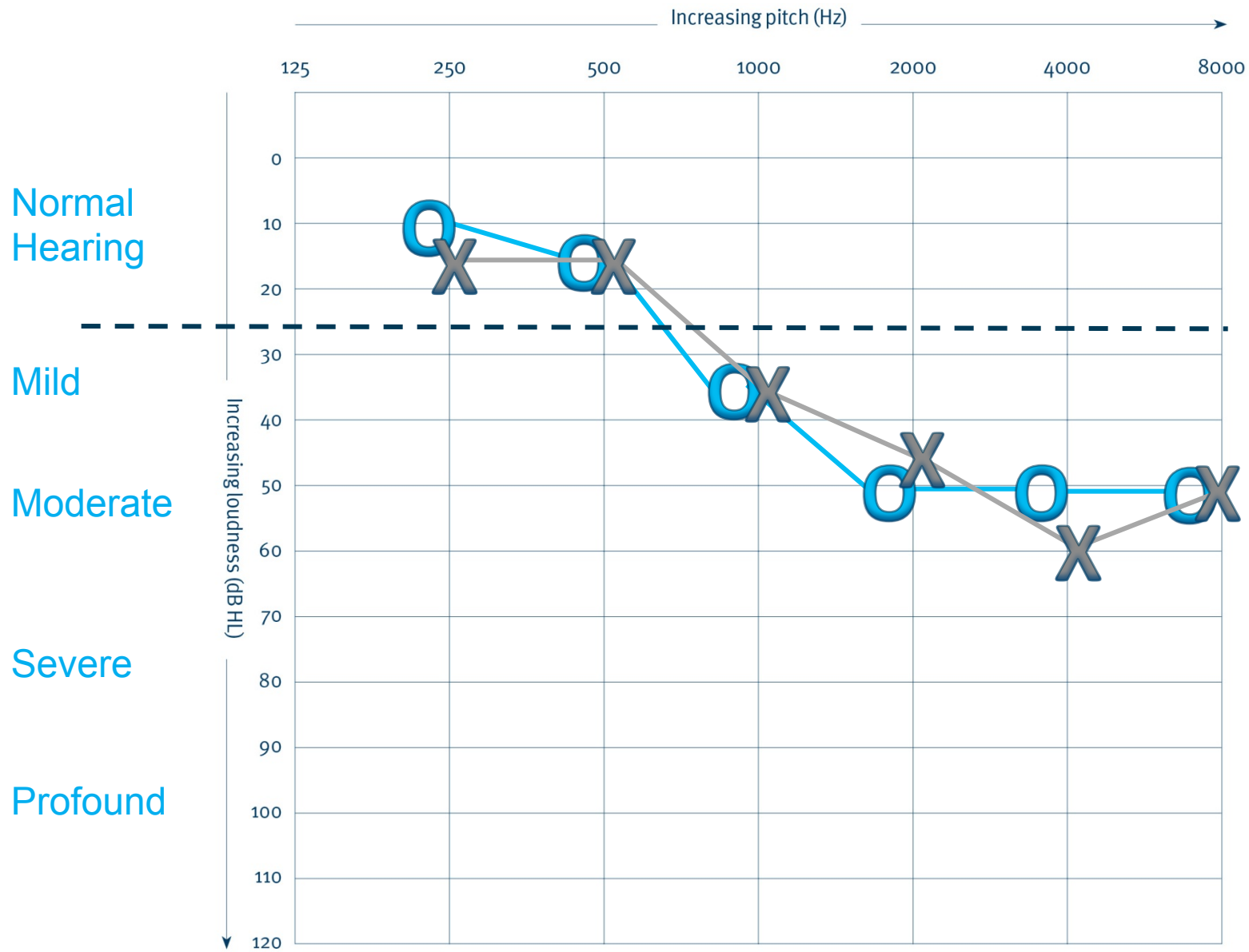
- Measures your ability to hear sounds of various pitch and loudness.

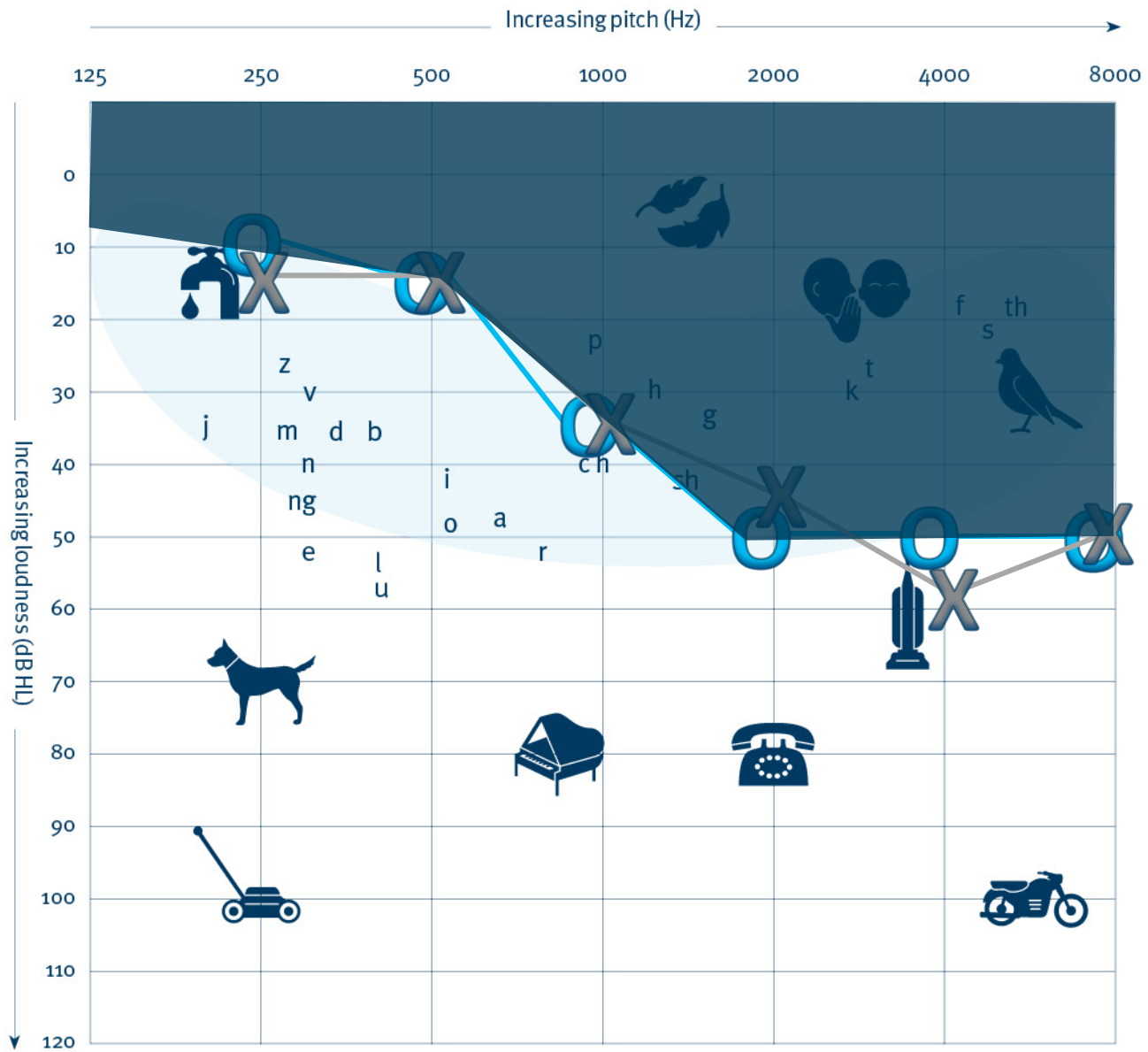
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Degrees of hearing loss



Sensorineural hearing loss: Due to aging





Speech Testing

- Speech Reception Threshold
 - Score should agree with pure tone results
 - Spondee words are repeated while the volume is decreased to determine threshold
 - “baseball, cowboy, airplane”
- Speech Discrimination
 - Sometimes called “word understanding” or “recognition”
 - Repeat the word after a carrier phrase
 - “say the word help”
 - Most relevant test for the patient
 - Give information on central portions of auditory system

Speech Testing

- Speech understanding cannot be accurately predicted based upon pure tone thresholds
- Pure Tone testing is vital to determine hearing for specific frequencies but only SPEECH TESTING can predict the individual's ability to understand speech.
- Speech Discrimination is useful in counseling a patient in terms of real-world difficulty
- ***Speech discrimination scores predict the performance with hearing aids***

Reconnecting to your world

Benefits of improved hearing

National Council on Aging
Study of adults 50 and older

93% of hearing aid wearers reported significantly improved quality of life including improvements in:

- personal relationships
- self-esteem
- life overall

Family members reported an average of 15% greater benefit than the person wearing the hearing aids



Prepare for better hearing

What are the steps to better hearing?

- Have your hearing evaluated to determine your challenging situations and possible solutions
- If you currently wear hearing aids, have a performance check
- Use good communication strategies





The Office of
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