



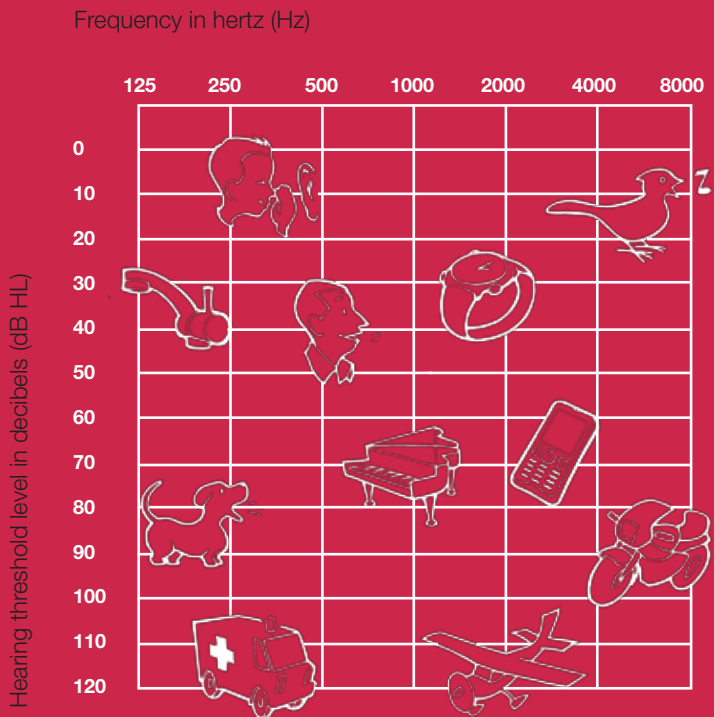
My hearing

ReSound
red|discover hearing



The result of your hearing test

Your hearing threshold is:



Notes: _____



Types and causes of hearing loss

In most cases your hearing care professional can determine the nature of your hearing loss and quite closely pinpoint what caused it. Hearing loss can be either conductive or sensorineural, or both.

Sensorineural hearing loss

Sensorineural hearing loss is by far the most common hearing loss. The condition refers to problems in the cochlea or auditory nerve. Most are due to deterioration of the tiny hair cells that line the cochlea and transmit sound to the auditory nerve and then the brain. This accounts for 90% of permanent hearing loss. Often, it is a natural part of aging, but other causes could be:

- Traumatic exposure to noise
- Genetic disposition
- Viral infections of the inner ear
- Certain medical treatments such as chemotherapy and radiation therapy
- Head injury

Sensorineural hearing loss can't be corrected medically, but a hearing instrument can almost always help.

Conductive hearing loss

This condition is caused by any obstruction that prevents sound waves from reaching the inner ear. Some of the causes of conductive hearing loss can include:

- An accumulation of earwax
- A collection of fluid in the middle ear
- Abnormal bone growth in the middle ear (otosclerosis)
- Middle ear infections (otitis media)
- Perforation of the eardrum

Mixed hearing loss

It is possible for a conductive hearing loss to occur together with sensorineural hearing loss. The condition is referred to as mixed hearing loss. Solutions to mixed hearing loss can be both surgery and a hearing instrument.

Your degree of hearing loss

- <25 dB HL:**
Normal hearing
- 26-40 dB HL: Mild**
You have trouble hearing and/or understanding:
Soft speech/whisper
Speech in the presence of background noise
- 41-55 dB HL: Moderate**
You have trouble hearing and/or understanding:
Regular speech – even at close distances
Regular speech – even in a quiet office setting
- 56-70 dB HL: Moderately severe**
You have trouble hearing and/or understanding:
Everyday conversations
A telephone ringing
- 71-90 dB HL: Severe**
You may only hear loud sounds such as:
Very loud speech
Fire truck sirens
A door slamming
- 90+ dB HL: Profound**
You have trouble hearing:
A motorcycle
Workshop tools



Types of hearing instruments

There are four basic types of hearing instruments. Your hearing care professional will help you decide which type is best for your particular hearing loss.

Behind the ear (BTE)

Suitable for all hearing losses.

The main section of this instrument is worn behind the ear. It is connected to an acrylic or silicone ear mould that fits snugly in the outer ear. BTE instruments can assist more types of hearing loss than any other instrument and are suitable for every degree of hearing loss. BTEs come in a large variety of sizes – some are so small that they are nearly invisible behind the ear.

Invisible Open Technology (IOT)

Suitable for mild or moderately severe hearing loss.

The newest style, introduced by Resound in April 2008, is the Invisible Open Technology (IOT). IOT fits into the ear canal like a CIC, but has the microphone placed in the external ear. By leaving parts of your ear canal open, an IOT offers a combination of the great features of a small BTE and a CIC.

In the ear (ITE)

Suitable for mild to severe hearing loss.

An ITE instrument is completely contained in a custom-made acrylic shell or casing that fits into the outer ear. ITEs are easy to handle and give you easy access to controls.

In the canal (ITC)

Suitable for mild or moderately severe hearing loss.

Somewhat smaller than an ITE, the casing of an ITC device is custom-made to fit the contours of your ear canal. ITCs are discreet, yet still visible within the outer ear.

Completely in the canal (CIC)

Suitable for mild or moderately severe hearing loss.

The size and shape of your ear canal may determine whether or not you a CIC is a suitable solution for you. The CIC instrument fits so deep in most people's ear canals that it is practically invisible. A short plastic rod assists easy insertion and removal.

Behind the ear (BTE)



Invisible Open Technology (IOT)



In the ear (ITE)

In the canal (ITC)

Completely in the canal (CIC)





What to consider when choosing a hearing instrument

Lifestyle

What is your lifestyle? Are you currently working? Do you enjoy going to concerts? Are you often out in noisy places like restaurants? Do you attend meetings? In what ways are you most affected by hearing loss? Is there anything you can't do because of hearing loss?

Type of hearing instrument

BTE, ITE, ITC or CIC? Do you prioritize appearance, durability or ease of handling? What is the degree of your hearing loss?

Physiology

The shape and size of the outer ear and ear canal may determine which type you can use.

Technology

What technological features will benefit your particular hearing loss? How advanced does your hearing instrument need to be?

Volume control

Some instruments adjust automatically and some have a manual volume control. Which do you prefer?

One or two?

If you have hearing loss in both ears, you'll get the most benefit by wearing two instruments. Age- and noise-related hearing loss tend to affect both ears, which explains why about 75% of new purchasers choose two hearing instruments. By wearing hearing instruments on both ears you will get much more out of your hearing instrument. You will for example have an easier time understanding speech in difficult listening situations such as restaurants.





What the technical jargon actually means

The ear mould: The ear mould is a vital component of any behind the ear hearing instrument. It transmits sound into the ear canal and stabilizes the hearing instrument on and in the ear. Ear moulds need to be custom-made for each individual to ensure a perfect fit. Some ear moulds are ventilated for greater comfort and more natural sound.

Digital: Programmed using a computer, digital devices are the most advanced solutions on the market. They provide the greatest flexibility for matching individual hearing requirements and filtering out unwanted sounds.

Directionality: Directional technology features advanced microphones that identify sounds based on the direction they are coming from. This helps reduce unwanted sounds. For example are sounds coming from in front of you (speech) amplified while sounds from behind (unwanted noise) are turned down.

Occlusion: Occlusion refers to the build-up of sound energy in the ear canal when something such as a hearing instrument is inserted. To feel occlusion, try to put your fingers in your ears and speak. You will notice that your voice “booms” and everything sounds different. This problem also occurs when eating, especially with crunchy food. When a hearing instrument is properly fitted, occlusion shouldn't be a problem.

Open solutions or open-fit devices: For many hearing instruments, it is possible to get an open solution. This means that your ear canal is not fully blocked - leaving parts of your ear canal open - preventing occlusion. You can think of it as a built-in air conditioner for your hearing instrument.

Wide dynamic range compression (WDRC): Wide dynamic range compression means that the volume in the hearing instrument is adjusted automatically depending on the sound environment. It's like having an automatic volume control that adjusts so quickly you don't notice it. Soft sounds, such as speech, are amplified to ensure they are heard and loud sounds, such as noise, are turned down so they are not uncomfortably loud.

Multiple memories and multiple programs: Most hearing instruments today have more than one program – called multiple programs. Each program is tailored for specific situations, so you experience the best possible sound, whether you are in a quiet room or a noisy restaurant.

Feedback management system: You may be familiar with the loud whistling sound, or feedback, from older hearing instruments. Today's hearing instruments are all equipped with a feedback management system that helps to avoid the whistling sound.

