



# Understanding Hearing Instruments

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Your hearing • Our passion

## ② Are you about to try hearing instruments for the first time?

You may feel a bit apprehensive, but a little excited too. Will your hearing be restored? Will you be able to enjoy social interaction again? Hear better in business meetings? Hear sounds of nature?

Should you try tiny instruments or more traditional models? How will you know if you are getting the best type? What can you really expect?

Hearing instruments can compensate for hearing loss but they do not restore hearing to “normal”. What they can do is make listening easier and more comfortable. Hearing instrument users can expect to hear most sounds better and to understand speech better. A little hearing improvement goes a long way. Hearing instrument users report better family relationships, higher self-esteem, improved mental health and greater independence and feelings of security than hearing impaired non-users. The value of this improved quality of life is priceless.

## Types

Hearing instruments are divided into three main types: BTEs (those that fit Behind-The-Ear), ITEs (those that fit In-The-Ear) and RITE (a combination of BTE and ITE).

**BTE hearing instruments** sit behind the ear and use a separate piece called an earmold or a thin sound tube with a soft silicone earpiece to direct sound into the ear canal. Larger sized BTEs can fit more severe hearing losses and may incorporate more features than the smaller models.

**ITE hearing instruments** come in several subcategories. The size and shape of your ear and your degree of hearing loss will determine which style and size of ITE instrument is best for you.

**RITE (Receiver-In-The-Ear)** instruments are a hybrid type where the main components of the system sit behind the ear and the receiver (speaker) sits in the ear canal.

Your hearing care professional can help you choose the hearing instrument type that will be best for your hearing loss and your lifestyle.

BTE



ITE



RITE



## Digital technology

Digital hearing instruments actually contain a tiny computer chip which is programmed to accurately fit the hearing loss of each individual user. The algorithms controlling the digital processor are derived from hearing research and allow the hearing instrument to manage multiple features of sound simultaneously.

The combination of high and low pitches, at soft and loud levels, is continuously analyzed and manipulated, automatically adjusting to changes in the sound environment to provide the best hearing compensation possible.

Digital signal processing also allows the possibility for advanced feedback reduction systems. Feedback is the annoying whistling that can sometimes occur with hearing instruments. Digital feedback management systems can analyze the signal path to stop feedback before it even occurs.

Digital hearing systems are able to readily adapt to changes in the sound environment, providing you with clear and comfortable sound. They also allow a more precise fit to your individual hearing loss, giving you maximum benefit from your hearing system. Adjustments can easily be made by your hearing care professional whenever they are needed.

## Special features

In addition to circuitry, there are many special features available to enhance your hearing system. These include things like adaptive directional microphones, multiple listening programs, audio input capability, automatic function, remote control, telecoils for phone use, etc. Modern hearing instruments also allow wireless (Bluetooth®) communication to a wide range of electronic devices such as mobile phones, televisions, music players, computers, etc.

How do you know which special features would be the most useful? It all depends on your individual hearing loss pattern, the severity of your hearing loss, your lifestyle and personal preferences.

This is why it is so important to find a knowledgeable hearing care professional who can assess your personal situation and recommend the best system for you.



## ② What steps do I need to take?

The first step to improving your hearing is to have a thorough hearing evaluation by a competent hearing care professional. **This person is generally an audiologist or a certified hearing instrument specialist.**

They will inspect your ears and test your ability to hear tones across a range of frequencies. Your hearing care professional will be able to determine whether hearing instruments might help you. If so, they will recommend the best type based on your hearing loss history and your lifestyle.

If you have selected a custom fit hearing instrument, your hearing care professional will make an impression of your ear using a soft material. This impression will be used to build your ITE hearing instrument or custom earmold. Alternatively, your hearing system may be fit with a standard soft silicone dome right on the spot.

Following the physical fitting, the hearing care professional will program your instruments, making adjustments based on your comments about how the instruments sound. You will be instructed in how to operate and care for your new hearing instruments.

## ② How do they work?

All hearing instruments operate on the same basic principles. A miniature microphone picks up sound, an amplifier circuit makes the sound louder and a tiny receiver (or speaker) delivers the amplified sound to the ear. Hearing systems differ in style and in technical features.

## ② Will they really help?

Once you begin to wear your hearing instruments, it will take some time to get used to them. You will need to refocus your hearing and readjust to sounds you have been missing for a long time. You may notice some improvement right away, but it can take several weeks until you are able to obtain maximum benefit from your hearing instruments. Patience and perseverance are the key! Your hearing care professional will work with you to make adjustments to obtain the best settings for you. You will be instructed to practice listening in a variety of environments. With dedicated practice you will soon be on your way to becoming a happy and satisfied hearing instrument user.



Hearing and understanding are basic human needs. Hearing problems and the resulting social consequences represent a challenge for society. We believe in a world in which people with restricted hearing can communicate again without limitation thanks to advanced technology.

For more information about hearing and hearing loss **[www.bernafon.com](http://www.bernafon.com)**

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*Your hearing • Our passion*

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