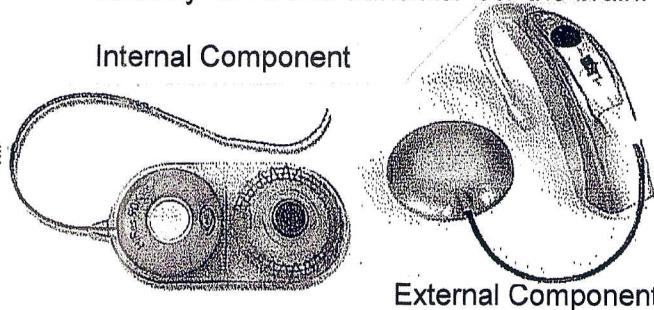


## What is a Cochlear Implant?

A Cochlear Implant is a mechanism to listen when a hearing aid does not fulfill hearing. Cochlear Implants are the only medical technology capable of restoring the functionality of one of the five senses: hearing. Unlike a hearing aid, which amplifies sounds to make it audible for people with loss of hearing, a cochlear implant avoids the damaged area of the ear and sends the sound signals directly to the auditory nerve and transmits it to the brain.

Internal Component



External Component

## Function of a Cochlear Implant

A Cochlear Implant consists of:

- An implanted or internal part
- An external part

The Cochlear Implant carries out the functions of the Cochlea.

The external part of the Cochlear Implant receives the signals, it processes them and transmits them through the skin to the implant.

The Implant passes the signals to the electrodes inside the cochlea and these carry those signals to the auditory nerve and this nerve in turn to the brain.

## Benefits of a Cochlear Implant

Many are the benefits offered by a Cochlear Implant.

Results show that the great majority of patients with implants have an understanding of the spoken language without reading lips, which opens social, educational and work opportunities. Among the most significant benefits we can mention:

- To perceive sounds of the surroundings.
- To enjoy listening to music.
- Development of language abilities.
- Verbal communication.
- Oral communication through the use of the telephone.
- Hearing with background noise.

15 year-old implanted in October 2008

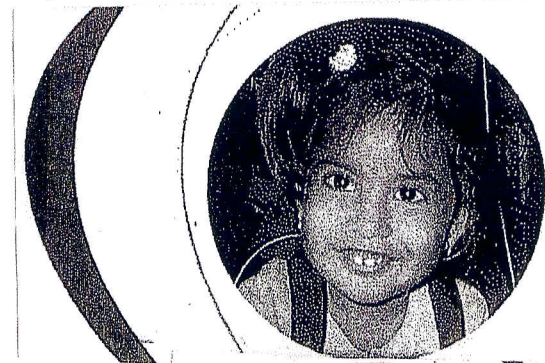


## Candidates for a Cochlear Implant

Children, young people or adults are candidates when having a severe or profound deafness, as they do not get any help with Conventional Hearing Aids.

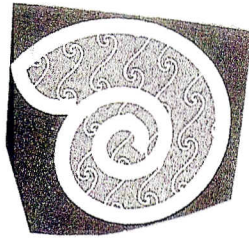
To obtain a Cochlear Implant, the person has to undergo a series of evaluations aimed at determining whether surgery is advisable or not.

4 year-old-Implanted on November 2008



23 year old- Implanted on January 2008



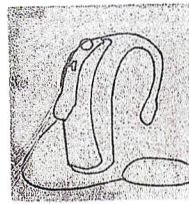


### How do we hear?

Sounds are produced by any sound source, either natural or artificial, it travels through the air to our ears, following a path from the external ear, the middle ear to the internal ear, where we can find the snail composed of very small and delicate ciliated cells; after passing through the snail it is transmitted to the brain through the auditory nerve, and it is the brain that tells us what is the sound that we are hearing.

### What is a Hearing Deficiency

Hearing deficiencies, also called hearing losses or hypoacusias, occur when there is a problem in the ears or in one or more parts facilitating hearing. A person with a hearing deficiency may be capable of hearing some sounds or he / she may hear nothing at all.



### What causes a Hearing Deficiency?

We can mention some of the more common causes:

- Malformation of parts of the ear
- Presence of fluid in the middle ear
- Serious infections such as meningitis
- Lesions in the head
- To listen to very high music, especially with headphones
- Repeated exposure to high noises, such as those from machinery.

### How are hearing deficiencies treated?

Treatment depends on the type of hearing loss, its severity or other needs that the person may have. The most frequent treatments include medication, operations, devices that amplify sounds and are called hearing aids, and other devices that facilitate hearing known as cochlear implants.

### What is the function of the hearing aid?

Hearing aids are like very small microphones that amplify sounds for the person to hear them more clearly. These are used with people suffering from a mild or moderate hearing loss, this is, those who can only hear strong noises.

### What is the function of the Cochlear Implant?

It is an electronic hearing device that is inserted into the cochlea by surgery.

Its function is to carry sounds to the brain for it to interpret them. It is used for people suffering from severe or profound hearing losses, this is, those who cannot even hear strong noises.

<p><b>Do you know that...</b>          In Panama there are approximately 75,000 Panamanians suffering from hearing loss (PENDIS-2005).</p> <p>One of each 3 children per one thousand suffer from hearing loss?</p> <p>Hearing losses in children are reflected in their linguistic and social development.</p> <p>The number of young people with tinnitus caused by the noise surrounding us is increasing</p> <p>Hearing Disability is known as the Invisible Disability</p>	<p style="text-align: center;"><b>OUR LOCATION (MAP)</b></p> <p>City of Knowledge, Clayton          Bldg. 234, Office 101</p> <div style="border: 1px solid black; border-radius: 50%; padding: 5px; width: fit-content; margin: 10px auto;"> <p>Ciudad del Saber, Clayton              Edif. 234 Oficina 101.              Tel. 317-0562              E-mail: <a href="mailto:contacto@fundacionoiresvivir.com">contacto@fundacionoiresvivir.com</a>  <a href="http://www.fundacionoiresvivir.com">www.fundacionoiresvivir.com</a></p> </div> <p style="text-align: right;">You can:          Be a Volunteer          Be a Sponsor          Be an Ally          Be a Friend</p>	<p style="text-align: center;"><b>FOUNDATION          HEARING IS LIVING</b></p> <p>We are a non-profit entity created in February of 2008, which was born with the purpose of being a bridge for people looking for a solution to their hearing disability.</p> <p>In our two years of existence, we have accomplished the creation and maintenance of a program for cochlear implants of which 14 people have benefited, among children, youngsters and adults, thus changing their quality of life and their participation in society.</p>
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