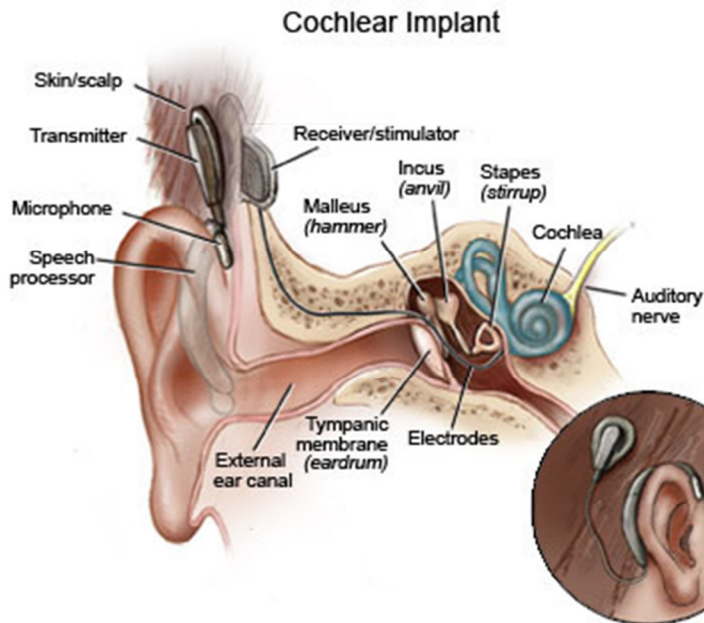




## Cochlear Implant

A person who is profoundly deaf or severely hard of hearing may use a cochlear implant.



Sometimes called a "bionic ear," the cochlear implant offers the hope of regaining or restoring the ability to sense sound for some people who have experienced significant hearing loss.

Although they're *not* miracle devices, cochlear implants help some children and adults, whether they're born deaf or whether hearing loss occurs later in life, experience talking on the phone, listening to music, and hearing the voices of their friends and loved ones.

### What Is a Cochlear Implant?

A cochlear implant is a surgically implanted device that helps overcome problems in the inner ear, or cochlea. The cochlea is a snail-shaped, curled tube located in the area of the ear where nerves are contained. Its function is to gather electrical signals from sound vibrations and transmit them to your auditory nerve (or hearing nerve). The hearing nerve then sends these signals to the brain, where they're translated into recognizable sounds.

[www.kidshealth.org](http://www.kidshealth.org)

If important parts of the cochlea aren't working properly and the hearing nerve isn't being stimulated, there's no way for the electrical signals to get to the brain. Therefore, hearing doesn't occur. (Sometimes referred to as nerve deafness, this is called sensorineural hearing loss.) By completely bypassing the damaged part of the cochlea, the cochlear implant uses its own electrical signals to stimulate the auditory nerve, allowing the person to hear.



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