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#### **COCHLEAR IMPLANTATION**

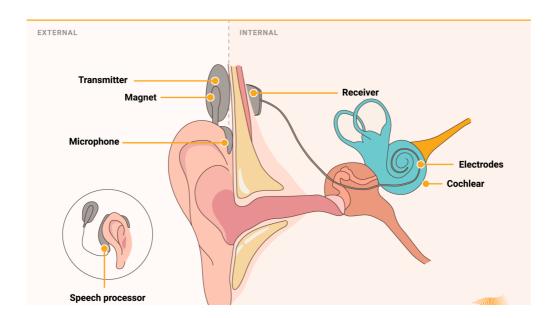
Cochlear Implantation is probably one of the best inventions in the recent history of Medical science for severe to profound hearing loss. Early identification of hearing loss and ear diseases is key to effective management. With the recent advances in hearing technology including cochlear implants, children with severe to profound hearing loss have access to most of the sound of spoken language. Most of children who are born deaf also can learn to listen to their own voices, listen to the voices of others and listen to the sounds of life.

- A cochlear implant is an electronic device that stimulates residual nerve fibres in the inner ear. These electrical pulses are sent to the brain and interpreted as sound.
- While hearing aids and other assistive listening devices simply amplify sounds, a cochlear implant transforms speech and other sounds into electrical energy that is used to stimulate surviving auditory nerve fibres in the inner ear.
- According to WHO Hearing Impairment (HI) in India is around 6.3%.
- 4 in every 1000 children suffer from severe to profound hearing loss.
- Bringing sound into the lives of deaf & mute children is one of the greatest joys for any otologist.



## **How It Works:**

A cochlear implant is a small electronic device that is surgically inserted into the cochlea, a part of your inner ear, to help you hear better. The implant stimulates your hearing nerve to provide sound signals directly to your brain. Cochlear implants are also known as 'bionic ears'.



### The cochlear implant has 2 parts: external and internal.

The external part is a sound processor that is worn behind your ear. It looks like a hearing aid and is powered by batteries. It contains small microphones that capture sounds and send them through your skin to the internal part of the implant.

The internal part is an implant, which needs to be fitted by a surgeon. It picks up signals from the sound processor and stimulates the nerve fibres in your inner ear. The nerve signals travel to your brain, where they are turned into sound.

"Cochlear Implantation is a journey from silence to the world of sound"



# **Photo Gallery:**



