

Cochlear Implants

What is a Cochlear Implant?

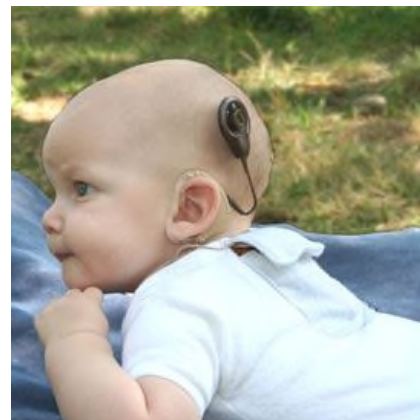
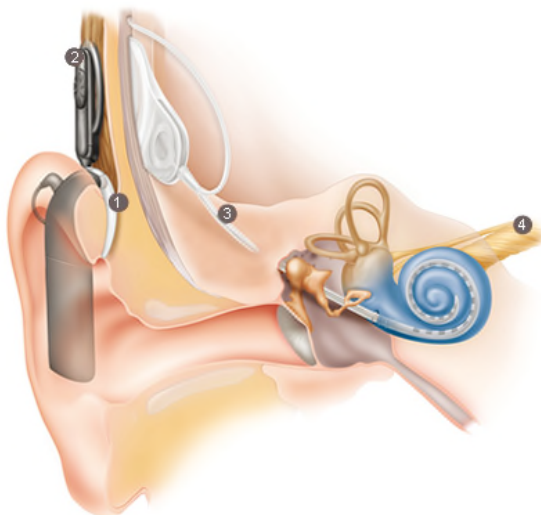
Cochlear implantation is a surgical means of providing useful hearing to a child who gets little benefit from conventional hearing aids (usually a severe / profound hearing loss)

An internal receiver is implanted by the surgeon into the mastoid bone behind the child's ear and electrodes are placed directly into the cochlea. The external parts of the equipment consist of the microphone, processor and transmitter.



How does it work?

- > Speech and other sounds are detected by the microphone and sent to the speech processor.
- > The speech processor converts this information into coded signals which are sent via a cable to the transmitting coil.
- > The coil passes the signal through the skin to the internal implant.
- > The implant converts the code to electrical signals.
- > These signals are sent to the electrodes which stimulate the remaining nerve fibres.
- > The signals are recognised as sounds by the brain, producing the sensation of hearing.



Following implantation a rehabilitation programme is required to develop the child's listening skills through daily activities.

Your peripatetic Teacher of the Deaf will provide you with detailed information and advice.

After the device has been activated it will take time for the child's brain to adapt to the sound being processed.

It can take up to a year before all speed sounds will be accessible.

Pupils will need to wear the device during all waking hours to build up their experience.

This device works most successfully within 1-2 months of a speaker or sound source.