Appendix B

Cochlear implants and hearing

A cochlear implant is a device that can help restore hearing to people who have severe hearing loss. The implant is surgically implanted into the cochlea, which is a small chamber in the inner ear. The implant consists of a microphone, processor, and an electrode array. The microphone captures sound, the processor converts the sound into electrical signals, and the electrode array sends these signals to the auditory nerve, which sends them to the brain.

In order to receive the signals, the user must wear a cochlear implant processor, which is a small device that connects to the implant and allows the wearer to control the volume, frequency response, and other settings. The processor also has a microphone that captures ambient sound and routes it to the implant.

Cochlear implants can be used to treat a variety of hearing loss conditions, including sensorineural hearing loss, which is caused by damage to the hair cells in the cochlea. They can also be used to treat children who have congenital hearing loss as an alternative to hearing aids.

Overall, cochlear implants are a promising technology for people with severe hearing loss, and continue to improve as research progresses.
Where There Is No Doctor