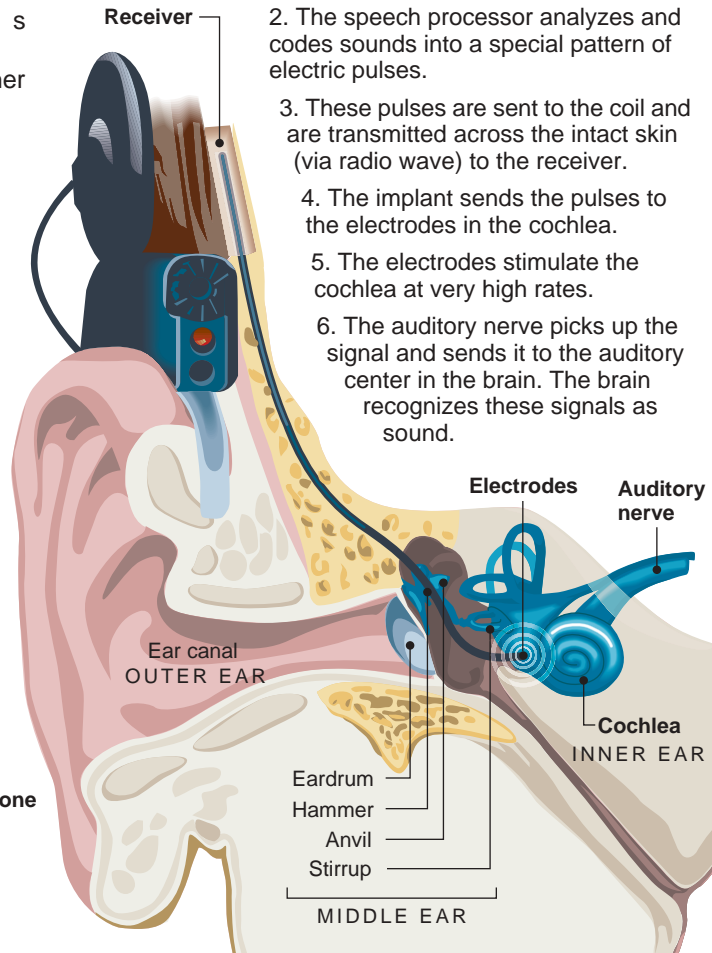
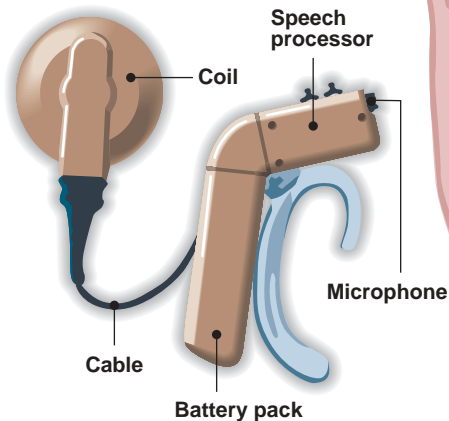


No longer in silence

Along with his sight, Brian Hubbard's hearing gradually eroded over the years due to a genetic disorder, Usher Syndrome. By age 56, Hubbard, completely blind, found his hearing loss had nearly isolated him, so he sought first one and then a second cochlear implant. In many hearing impaired people, little hairs that line the cochlea and facilitate hearing are damaged or absent. The cochlear implant essentially attempts to substitute for those hairs.

The device



1. Sounds are picked up by the microphone of the speech processor.
2. The speech processor analyzes and codes sounds into a special pattern of electric pulses.
3. These pulses are sent to the coil and are transmitted across the intact skin (via radio wave) to the receiver.
4. The implant sends the pulses to the electrodes in the cochlea.
5. The electrodes stimulate the cochlea at very high rates.
6. The auditory nerve picks up the signal and sends it to the auditory center in the brain. The brain recognizes these signals as sound.