

How Do We Hear?



Sound waves are funnelled into our ear canal by the pinna.

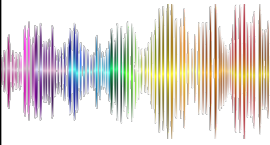
The sound waves make our ear drum vibrate.

Vibrations of the ear drum cause the 3 small bones in the ear, collectively called the ossicles, to move.

As the last bone in the chain, the stapes, vibrates this causes wave like movements to be generated in the fluid inside the cochlear.

These waves stimulate microscopic hairs inside the cochlear.

The hairs in the cochlear are tuned to respond to differences in sound frequency and pitch.



When stimulated these hair cells generate nerve impulses that are transferred to the auditory nerve.

The nerve impulses travel along the auditory nerve into the hearing centre of the brain, called the auditory cortex.

The auditory cortex converts the nerve impulses into the sound that we hear.

