



The Hearing Process



The Hearing Process

*Using Google Slides to make an
easy-e-book*

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Chapter 1

The Ear

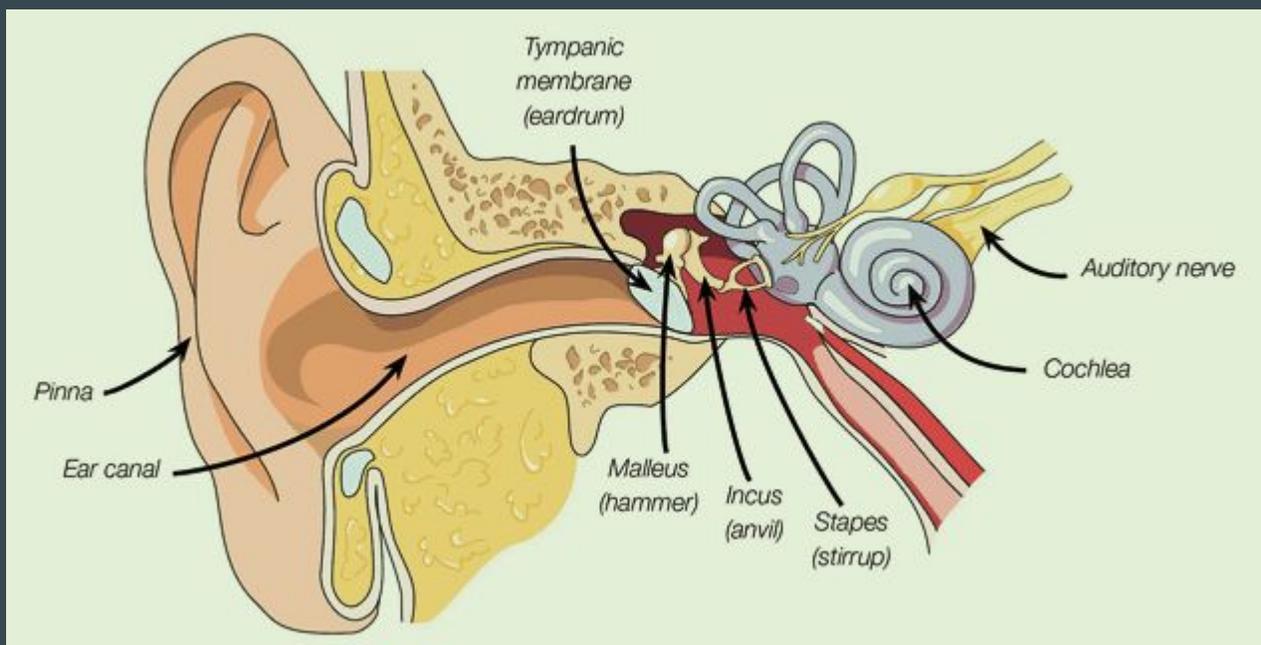
The ear is a very valuable part of the human body. It is important to take care of our ears. They don't just help us hear, they help us keep our balance. We don't hear noises right away. We actually hear the vibrations. That's how people hear music or other people talking. Everything that makes sound makes vibrations first. There are certain parts of the ear that send these vibrations into the brain.



Chapter 2

Parts of the Ear

There are three main parts of the ear. The outer ear, middle ear, and the inner ear. The outer ear consists of the ear you see on the outside and the tube, or canal that connects to the middle ear. The outer ear that we see is called the pinna. This part of the ear funnels in the vibrations and sends them down the canal. The canal then feeds into the middle ear, where the eardrum or Tympanic Membrane is. The eardrum vibrates the three smallest bones in the body, the Malleus (Hammer), the Incus (Anvil), and the Stapes (Stirrup). The cochlea is the main part of the middle ear. This is what keeps us in balance. The cochlea is attached to the auditory nerve in the brain. The semicircular canals are located on the cochlea and send signals to the brain to help people maintain balance.

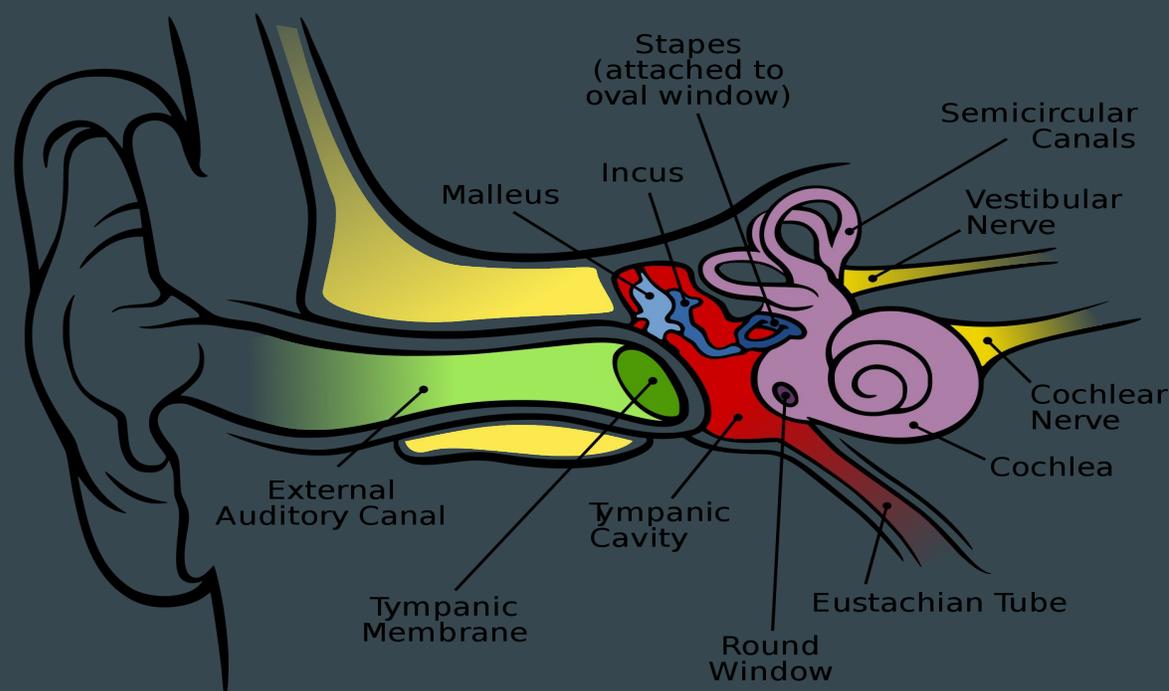


Chapter 3

How Sound Travels Through the Ear

Vibrations get funneled into the outer ear and through the canal.

The canal then leads to the eardrum, which vibrates the Malleus, Incus, and Stapes. These bones then send the vibrations to the semicircular canals. The semicircular canals transport the noise vibrations to the cochlea. The cochlea is lined with tiny hairs that transmit to the auditory nerve in the brain. The brain then translates the vibrations into noises that people can understand.

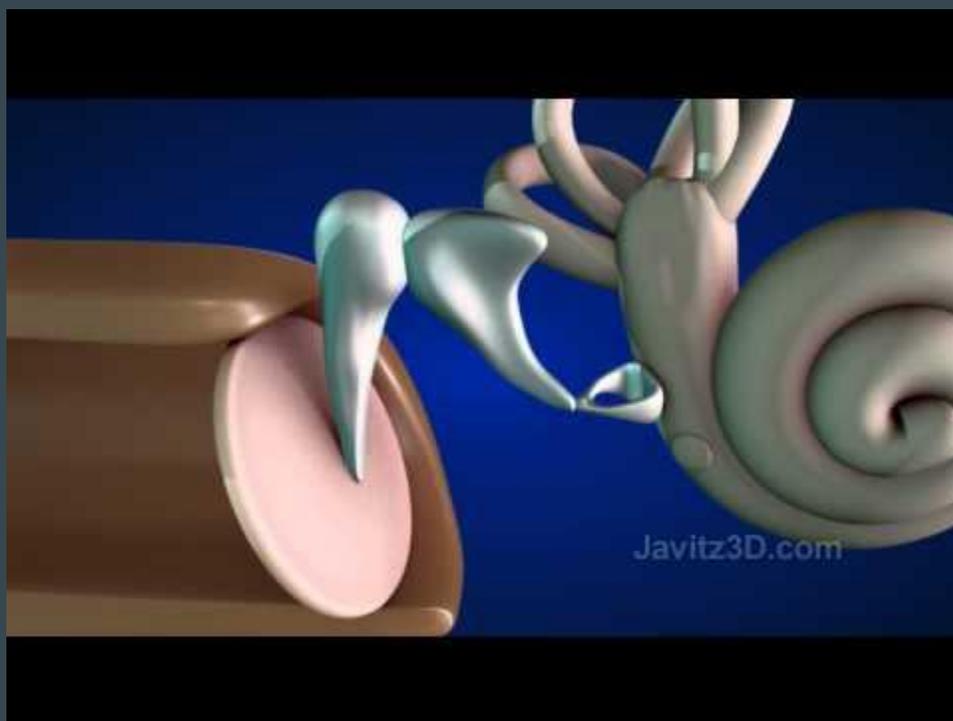


Chapter 4

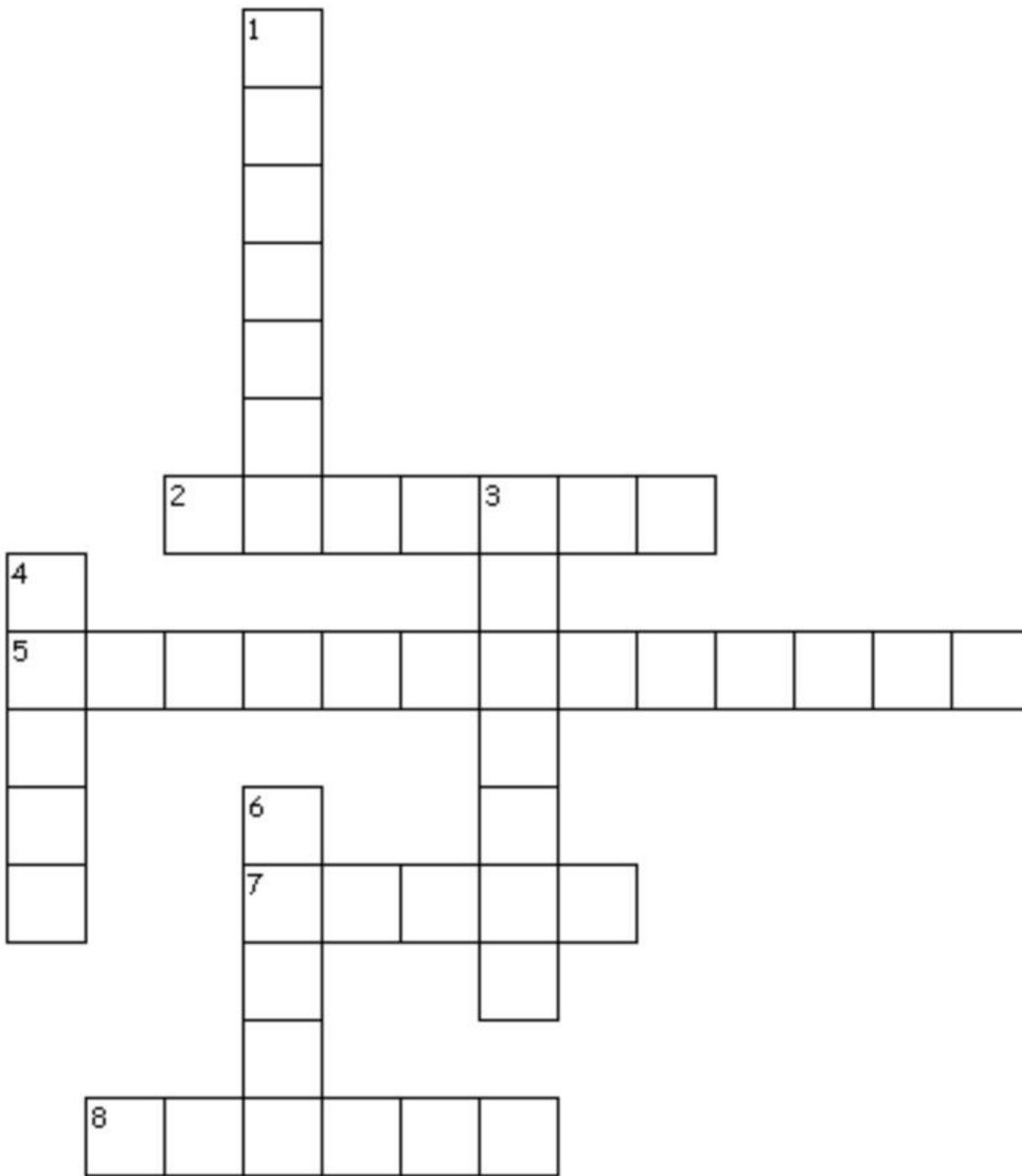
Ear Infections and Other Ear Issues

Ear infections usually appear when there is an inflammation in the inner, middle, or outer ear. They are also known as otitis. The most common type of ear infections are called acute otitis media. Bacteria gets trapped in the air pocket behind the eardrum, causing it to swell up with fluid. Ear infections usually clear up on their own, but if they do not, it could end up as permanent damage.

Hearing loss can happen when something dampens the vibrations that are sent through the ear. Too much ear wax in the canal can build up fluid and can cause deafness. There are many cause of hearing loss, some even unknown. There are some people that are born with this disability. Doctors have come up with implants in the ear that can help deaf people hear.



Parts of the Ear



Across

2. also known as the hammer
5. transmits nerve signals to the brain
7. also known as the anvil
8. also known as the stirrup

Down

1. lined with tiny hairs that connect to the auditory nerve
3. the middle ear
4. the tube that leads to the middle ear
6. The ear that we see on the outside of the head