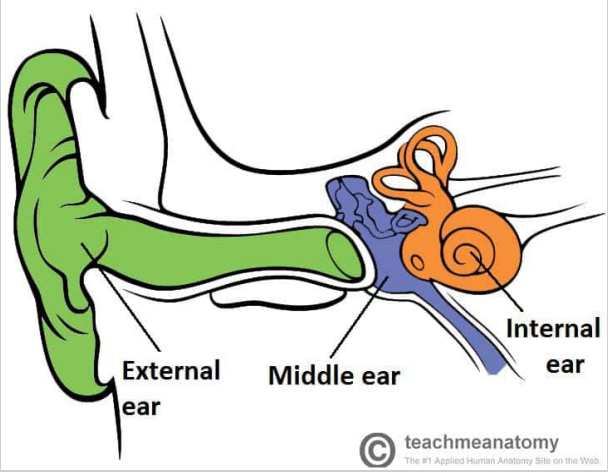
The Facts

OCCUPATIONAL AND ENVIRONMENTAL SAFETY

On How we Hear and Hearing Loss

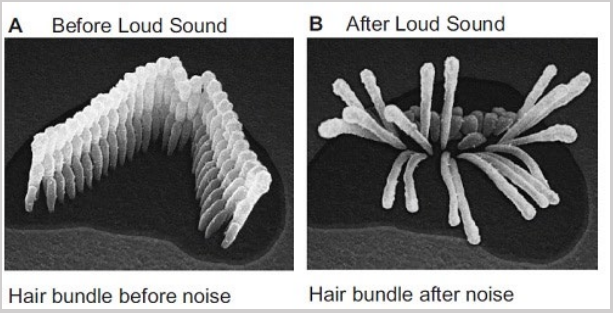
Hearing Conservation is not just a temporary resolution to loud noises. If you are exposed to 85 decibels of sound for at least eight hours you should have hearing protection.

How we Hear



- Sound waves enter the ear canal, and the eardrum vibrates.
- Vibrations pass through 3 connected bones in the middle ear.
- In the inner ear, moving fluid bends thousands of delicate hair-like cells that convert vibrations into nerve impulses.
- Nerve impulses are carried to the brain by the auditory nerves.
- The brain converts these impulses into what we hear as sounds.

How Hearing is Damaged



- Strong vibrations can cause the Hair-like cells to flatten.
- Once flattened, there is no repairing or replacement.

Types of Hearing Loss

Noise Induced Hearing Loss:

- Constant exposure over time
- Exposed to sound level over 140 db
- Tinnitus
  - Temporary Hearing Loss
    - May be caused by exposure to loud noises for a few hours.
    - Hearing is restored after time away from noise source.
  - Permanent Hearing Loss
    - May occur after the ear has been continually exposed to excess noise.
    - Hearing will not be restored and cannot be repaired.

Age Induced Hearing Loss:

- Exposure to high sound levels
- Hereditary
- Nerve Damage

Symptoms of Overexposure

- Temporary Threshold Shift
  - Muffled sound after noise exposure
  - If overexposure continues, shift may worse and become permanent.
  - May result in untreatable damage to hearing.
- Tinnitus
  - Ringing or roaring in the ears
  - If overexposure continues, ringing may become permanent.

Contact Us!

Occupational and Environmental Safety (OES)

Hearing Conservation Program

656-0341