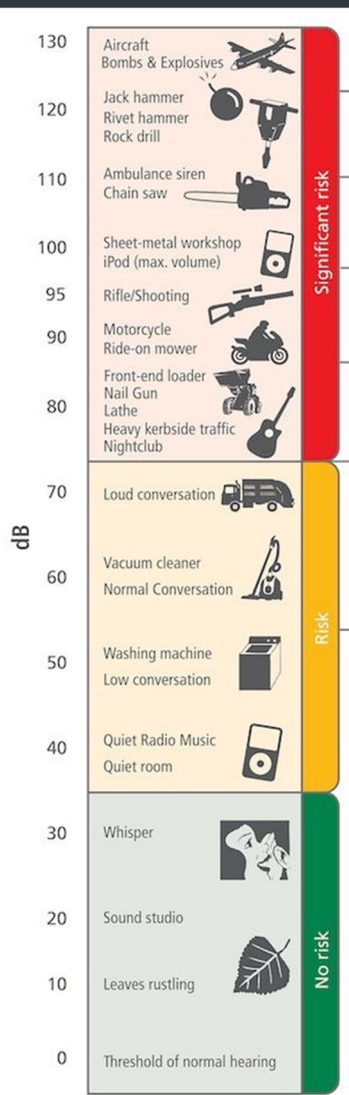


## Common Noise Ratings

Sound is measured in units called “decibels” (dB). A 3 dB increase in volume yields a 100% increase in sound energy and **just over a 23% increase in loudness**. The higher the dB, the more damage it can do to hearing ability.



## “Use It or Loose It” Hearing Protection

Have you ever heard someone say, “Nah. I don’t need earplugs. I’m used to loud noises,”? Well, they are partly right. They don’t need earplugs for those sound frequencies they are “used to,” because there is nothing left to protect. However, they DO need earplugs to safeguard what little hearing remains.

People do not become accustomed to hearing loud noises. Their pain tolerance for high energy frequencies can increase, but in doing so they become deaf. There is no other option.

This is what is happening to your ear when it is exposed to loud noises:

1. Sound is energy that travels through the air in the form of vibrational waves.
2. These waves enter the ear, and travel down the ear canal where they vibrate the eardrum.
3. The eardrum transfers the waves to the cochlea which contains thousands of tiny hair-like cells. These hairs vibrate against a membrane which sends a signal to the brain.

When these hairs are overused, either through moderately loud noises over time or from extremely loud noises, they break or die, no longer functioning. This means the ear can’t convert the vibrations into nerve signals, and the ear has become deaf to the frequencies associated with the dead hair cells.

**Preventing Hearing Loss** – According to OSHA, hearing protection should be worn any time noise levels are higher than 85 decibels, averaged over 8 hours. Most people don’t carry personal noise dosimeters with them, so an easy rule to remember is if you have trouble understanding a normal conversation with someone who is 3 feet away, you need to wear hearing protection.

Ear plugs work. They have been proven to reduce noise levels by 15-30 decibels. Just like any other PPE though, they must be worn correctly. Most people use disposable earplugs, so please follow the basic steps below. Remember, hearing loss is completely preventable.



\*\*Image courtesy of Magid Glove