

How Loud is Too Loud?

The human hearing mechanism is amazingly sensitive. Along with the ability to hear a pin drop (literally!), it can accommodate extreme sound pressures like gunshots and explosions.

Damage starts to occur with extended exposures to sound levels of around 85 dBA. The higher the sound level, the greater the risk of damage; the longer the time of exposure, the greater the risk.

How can you tell when the sound around you, be it industrial, musical, or otherwise, is reaching the point where it is dangerous to your hearing? Here are a couple of clues to help figure out if the noise is too much for your ears.

Tinnitus or ringing in the ears

is a sign of potential damage. If you hear a ringing or a rushing sound in your ears after playing, it was too loud.

Temporary Threshold Shift — after exposure to loud noise, you may lose some hearing, then recover after a rest period in quiet. If, after exposure to noise, conversation sounds muffled or unclear, it's likely that you overloaded your hearing system.

Raise your voice — if you must strain your voice to be heard at a distance of about three feet, sound levels are likely approaching the dangerous range.

How to be Loud and Safe

■ **Turn down.** Let the PA carry the load; keep stage volume at a minimum to protect your hearing.

■ **Monitor your monitors.** Using custom earmold (or in-the-ear) monitors can help reduce levels on stage.

■ **Protect your ears.** Commonly available industrial earplugs may not be well suited for musical applications due to their strong reduction of treble frequencies. Several manufacturers provide musician's plugs (like ER-15, ER-25, and the vented/filtered type), designed to protect relatively equally at all frequencies, making the music sound natural. Each plug has a different effect, and each may be suitable for different musicians in different situations. Contact your audiologist or hearing health professional for more details.

■ **Equipment positioning.** Position speaker cabinets so that your ears do not get the full force of the acoustical energy. If custom earphone monitors are not available, position side fills and floor wedge monitors as far away as practical.

■ **Save it for the gig.** The time you spend in rehearsal adds to your total noise dose. Rehearse at moderate volume levels. Talk to the drummer about using smaller or softer tip sticks for rehearsal.

A Quick Hearing Test

Pick a quiet place to park your car on the way into a concert, rehearsal hall or club. Set the volume on your radio so it is just barely audible. Then, without adjusting the volume, see if you can hear the radio after the show or rehearsal. If not, you are experiencing a **temporary threshold shift** — which with repeated exposures, may become permanent.

On the Gig and Off

Your ears can't tell the difference between the sound you expose yourself to in rehearsal and performance from the noise involved with the rest of your day. Total cumulative noise dose is the final word on how your hearing will last over time.

Lots of things can contribute to your daily noise dose. A day job in a noisy factory; operating noisy lawn or woodworking equipment; boom cars; firearms use; and many other common activities can result in potential danger to your ears.

This chart will show you the range of some common sounds.

Typical Sound Levels

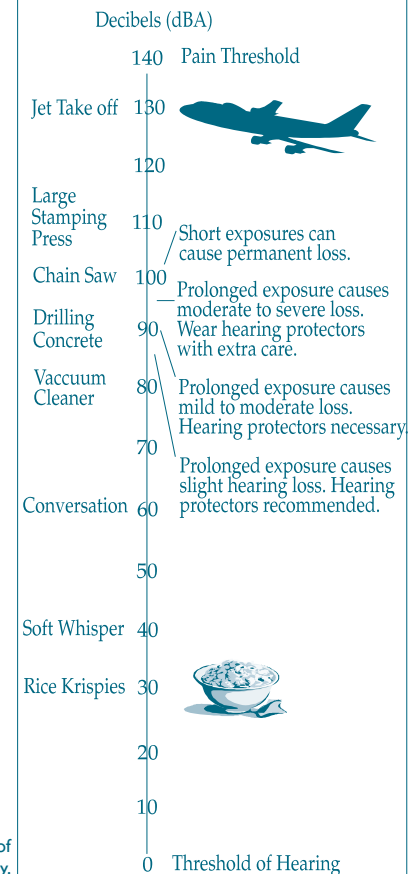


Chart courtesy of E-A-R/AEARO Company.

