

Repeated exposure to elevated noise levels, whether at work or off-the-job, can cause irreparable damage to one's hearing. Symptoms may include tinnitus (ringing in the ears) and hearing loss. It can also cause increases in muscle tension, pulse rate, and blood pressure along with nervousness, sleeplessness, and extreme fatigue.

IS HEARING LOSS REVERSIBLE?

Hearing loss is not reversible. Prevention of excessive noise exposure is the only way to avoid hearing damage.

WHAT NOISE LEVEL IS THE CAL-OSHA "ACTION LEVEL"?

The Cal-OSHA action level is defined as noise exposure equal to or exceeding 85 decibels (dBA) - an 8-hour time-weighted average (TWA) sound level. When a USC employee is exposed to noise equal or greater than 85 dBA, USC is required to implement a Hearing Conservation Program (HCP).

The "3-foot rule" is often used to gauge action levels, i.e., if you are standing three feet away from someone and must shout to be heard, the noise level is probably over 85 dBA. NOTE: Noise levels below 85 dBA are considered nuisance noise. While these levels may cause increased stress levels, distractions, or discomfort, they are not expected to result in permanent hearing loss.

WHAT I NEED TO KNOW...

If I have concerns about exposure to harmful noise:

- Notify my supervisor.
- Contact EHS@usc.edu or (323) 442-2200.
- Occupational Health & Safety will schedule an evaluation of my workplace with my supervisor and perform a noise survey (if necessary).

WHAT SAFETY MEASURES CAN BE USED TO REDUCE OR ELIMINATE WORKPLACE NOISE AT USC?

1. Utilize engineering controls:
 - a. Purchase low-noise equipment.
 - b. Isolate noisy machinery.
 - c. Install anti-vibration isolation pads.
 - d. Replace worn, loose, or unbalanced parts.
 - e. Lubricate machines.
 - f. Substitute the machinery or process.
 - g. Install absorption materials, silencers, barriers, and/or acoustical enclosures around the noise sources.
2. Implement administrative controls:
 - a. Limit the length of time workers are exposed to noise in the work area.
 - b. Post noise hazard signs in areas where noise levels are at 85 dBA or higher (including entrances).
 - c. Require and offer hearing protection to anyone entering noise hazard areas.
3. Wear hearing protection devices.
 - a. Use disposable foam plugs, molded plugs, or re-usable ear muffs.
 - b. Ensure the hearing protection does not obstruct or create a bigger safety hazard when used with other PPE (e.g., welder helmet, hard hat, face shield).
 - c. Provide hearing protection for guests and visitors.

REFERENCES

Cal-OSHA

- 8CCR5095-5100: Article 105, ["Control of Noise Exposure"](#)

NIOSH (National Institute for Occupational Safety and Health)

- ["Controls for Noise Exposure"](#)
- ["Buy Quiet"](#)

OSHA

- ["Occupational Noise Exposure"](#)

