

Hearing Protection Use and Selection

Certain tools and equipment can create noise in the workplace that can be harmful to your hearing. To protect your hearing at work

- employees exposed to an average noise level above 85 dBA will be enrolled in the University’s Hearing Conservation Program, which includes annual hearing tests, training, and hearing protection.
- hearing protection is recommended in noisy environments (e.g., mechanical rooms) regardless of the duration as exposure to high levels of noise can cause permanent hearing loss.
- review the table below, which explains the advantages and limitations of different types of hearing protection. A higher Noise Reduction Rating (NRR) indicates better hearing protection and noise reduction.

Earmuffs
NRR 25–35 dB



Advantages

- consistent and effective protection
- easy on and off
- reuseable

Limitations

- not compatible with some personal protective equipment (e.g., hard hats, safety glasses)
- more expensive than other options
- less comfortable in hot and humid environments
- facial hair may affect fit

Hand-Formed
Ear Plugs
NRR 22–32 dB



Advantages

- one size fits all
- can be worn with glasses
- more comfortable in hot and humid environments

Limitations

- must fit properly to ensure adequate protection
- proper insertion requires practice and clean hands
- one-time use
- easily soiled

Pre-Formed
Ear Plugs
NRR 22–32 dB



Advantages

- ready to use; no need for molding
- washable and reuseable
- easy on and off

Limitations

- one size does not fit all
- fits less snugly than hand-formed earplugs
- may be less comfortable during extended use

Dual Hearing
Protection
(Ear Plugs with Earmuffs)
NRR 30–40 dB



Advantages

- additional 5 dB of noise reduction

Limitations

- hearing speech or alarms may be difficult
- level of comfort varies

Hearing Protection Guidelines

- Wear earplugs or earmuffs as instructed to ensure proper fit and seal.
- To clean reusable earplugs, use mild soap and water. For earmuffs, follow manufacturer instructions.
- Check hearing protection for cracks, tears, or deformities before use.
- Discard disposable earplugs after one use; replace reusable plugs or earmuffs when damaged or worn out.
- Always wear hearing protection in high-noise designated areas.
- Keep hearing protection in clean, dry containers away from contaminants.

Assessing Noise Levels in the Workplace

If you must raise your voice to be heard by a coworker standing two to three feet away, noise levels are likely above 85 dBA. Please notify your supervisor or Environmental Health and Safety if you suspect that noise levels in your workplace are high.

Resources

Contact Environmental Health and Safety at ehs@northwestern.edu; visit northwestern.edu/environmental-health-safety/occupational-health/hearing-conservation.html; or scan the QR code.

