



BSA SAFETY MOMENT

NOISE SAFETY/AWARENESS

SUMMARY

According to the American Academy of Otolaryngology, one in 10 Americans suffers from hearing loss. Exposure to unsafe noise levels can damage hearing and thus impact a person's ability to hear even normal speech. Often, hearing loss occurs without the person's knowledge. This avoidable exposure can be eliminated or at least minimized by using proper personal protective equipment (PPE) and following safe operating procedures for noisy equipment.

GENERAL INFORMATION

The Boy Scouts of America encourages outdoor activities; however, an unsafe exposure to noise is embedded into some of those activities and may lead to hearing loss. Some of the more common exposures come from shooting sports, service projects (e.g., wood chippers), and proximity to the operation of power tools and equipment (e.g., use of chain saws), even listening to music via earbuds and headphones. While listening to music can be done safely, high volume can quickly turn dangerous.

What causes hearing loss?

- Prolonged exposure to loud noise destroys nerve endings. When noise is too loud, it begins to kill the nerve endings in the inner ear. As the number of nerve endings decreases over time, so does one's hearing. There is no way to restore dead nerve endings; the hearing loss damage is permanent.
- The Occupational Safety and Health Administration (OSHA) considers 90 decibels (db) the maximum exposure limit averaged over an eight-hour period. Most health agencies and OSHA recommend hearing protection for decibel levels above 85 db.

What are some examples of decibel levels in Scouting?

- Lawnmower, shop tools, truck traffic: 90 db
- Chain saw, pneumatic drill, snowmobile, indoor bodyflight: 100 db
- Shooting or gun muzzle blast (which can cause pain and even brief exposure injuries to unprotected ears): 149 db

Ways to prevent hearing loss:

- Disposable foam plugs—The most widely used type of hearing protection device (HPD). The soft foam is rolled into a tiny log shape and then inserted into the ear. The foam plug will expand to the size of the ear canal.
- Reusable earplugs—Washable earplugs with flexible, elastic flanges attached to a stem for easier placement and removal. These should be fitted by trained personnel.*
- Ear muffs—Plastic cups with foam cushions attached to an adjustable headband. They cover the ears to help block out sound. The soft cushions seal against the side of the wearer's head and limit noise reaching the ear.*
- Barriers/distance—Placing a barrier (e.g., a wall) between you and the noise or increasing your distance from the noise can help to reduce the decibels reaching your ears.
- Proper maintenance of powered equipment.

***NOTE: Reusable plugs and ear muffs should be cleaned and sanitized after each time used.**

RESOURCES

- OSHA —Occupational Noise Exposure: www.osha.gov/SLTC/noisehearingconservation
- National Institute for Occupational Safety and Health (NIOSH)—Noise and Hearing Loss Prevention: www.cdc.gov/niosh/topics/noise/
- NIOSH free smartphone sound measurement app: www.cdc.gov/niosh/topics/noise/app.html
- Centers for Disease Control and Prevention (CDC)—Protect Your Hearing, Promote Hearing Health: www.cdc.gov/features/protect-hearing-health/index.html