Hearing Protection PPE Requirements



Employees must be given a selection of several types of hearing protection to choose from. For routine noise levels, earplugs, canal caps or earmuffs can be used. There are many styles and sizes, some even designed to allow the wearer to “hear” conversations while providing a barrier to extremely loud sound levels.

For extremely loud areas, such as working around jet engines, special ear muffs are designed for more significant noise reduction. Your vendor can help you make some choices. If you do not have a vendor, interview several before you select one.

When making your selection you should consider the following factors:

- Comfort
- Noise reduction, or attenuation, needed
- Size
- Cleanliness
- Compatibility with other PPE
- Special job requirements
- Communication needs

Types of Hearing Protection PPE

Here’s a short summary of the main types of hearing protection PPE currently available:

Ear Plugs

Ear plugs provide cost effective reduction in noise by sealing the ear canal from the source of noise. They are a good choice when large numbers of employees need hearing protection from work tasks for long periods of time and they are also cooler in hot and humid environments. Some workers do not like to use ear plugs because they have an aversion to inserting something into their ear. In addition, if they have not been properly taught to insert an ear plug, their previous experience may have been uncomfortable, increasing their resistance to wearing them. Ear plugs can also make it difficult to hear other noises such as warning alarms or communications from co-workers.

Ear canals are not all the exact same shape so fit is very important; if the canal is not sealed from the noise source, it is not going to be very effective.

Proper insertion is also very important; dirty hands and fingers introduce contamination into the ear canal and can cause very uncomfortable ear infections. Ear canals often need to be straightened out before insertion so that the ear plug goes in deep enough. After rolling the ear plug between the fingers, the ear canal should be pulled up and away from the ear before inserting. An ear plug is properly inserted if the end of the ear plug does not extend beyond the end of the ear canal.

Foam type ear plugs are only designed to be worn once and when they have been removed they should be thrown away and a clean pair used for the next time they are needed. Employees should be instructed to keep a spare pair on them or in their work area to help avoid the temptation to re-use ear plugs.

Some ear plugs are made of a more sturdy plastic that are designed to be re-used. You can tell the difference because reusable ear plugs have stem that the worker holds onto when inserting so that they don't contaminate the part that goes into their ear. If a stem-type ear plug is properly inserted, all you should see sticking out of the ear is the stem.

Reusable ear plugs also come in styles that have a band or string that attaches the two plugs together and allows the worker to remove them and wear them around his/her neck when not in use. The string-types can also be attached to a hard hat. This application is only for cleaner work environments where the ear plugs that are out of the worker's ears won't get dirty before being placed back in, but the attenuation of noise with a band is reduced as some noise is transmitted through the band.

Canal Caps

Canal caps are a variation of ear plugs that are designed to fit over the top of the ear canal, not inside it like an ear plug. Canal caps are more comfortable for some workers because they do not need to be inserted into the ear canal. Most canal caps have an attached string or band so that they can be hung around a worker's neck when not in use.

Ear Muffs

Ear muffs are a much more expensive type of protection in terms of the initial cost, but they last a long time if properly cared for and are generally easier to fit and wear. Ear muffs seal the entire ear with a cushioned cup that is much more comfortable. Ear muffs are good for intermittent use, but some workers find them to be hot to wear for long periods of time. Ear muffs are come in styles that have built in radio communication capacities.

Putting on an ear muff is much simpler; they have an adjustable headband that should fit over the top of the worker's head and be flush against their head. The cup should completely cover the worker's ear and any hair underneath it should be removed.

Ear muffs that mount onto a worker's hard hat can also be purchased. In order to maintain ear muffs, they should be kept in a clean and dust-free environment when not in use. They can be wiped clean with a non-alcohol wipe or with warm soapy water. The cushions in the muffs should be replaced if needed, but worn no longer than six months.