

# Hearing Protection

## Earplugs

*Does your company provide you with earplugs or other hearing protection? If so, you may be wondering if they are necessary or if you will be able to communicate when wearing them. The good news is that earplugs do not lessen your ability to hear your co-workers; if you need earplugs, your workplace is so noisy you can't hear them anyway. And earplugs can screen out background noise (in much the same way that sunglasses screen out background glare), actually making it easier for you to hear sounds such as the human voice.*

### TYPES OF EARPLUGS

*There are three general categories of earplugs:*

1. Formable earplugs, made of waxed cotton or acoustical fibers, can be molded to fit your own ears. They are disposable. Semidisposable plugs of molded foam are used for up to a week.
2. Premolded inserts of soft silicone rubber or plastic are reusable; some come in different sizes.
3. Custom-molded earplugs are molded to fit the individual; silicone rubber or plastic molding compound is placed in each ear and allowed to set. The set compound may be used as earplugs or as molds for ear-plugs.

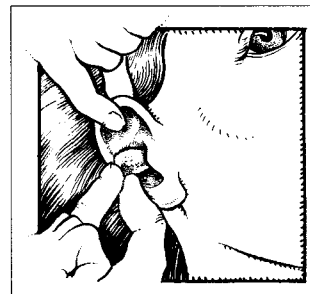
### Effectiveness

Earplugs may reduce noise levels by up to 30 decibels. That is, if the noise in your environment is 100 decibels, your earplugs could effectively reduce it to 70 decibels. When choosing earplugs, check the Noise Reduction Rating (NRR) on the package. The higher the number, the better the protection.

### Fit and Maintenance

To work properly, earplugs must completely fill the ear canal. When inserting earplugs, grasp your ear from behind your head with your opposite hand, and pull up to straighten the ear canal. Insert the earplug until it blocks sound; then hold it in place for a moment while it expands. Make sure your hands are clean when inserting plugs, and keep reusable plugs clean by washing them after each use in warm soapy water, to avoid ear infection.

Properly fitting earplugs need not interfere with your comfort or ability to hear important sounds. And they can protect you from gradual loss of hearing that you may not notice until permanent damage has occurred. By knowing what noise levels require hearing protection, getting your hearing tested at least once a year, and taking responsibility for using hearing protection, you are making a "sound" investment for your future.



To insert an earplug properly, grasp your ear from behind your head with your opposite hand and pull up to straighten the ear canal. Insert the earplug until it blocks the sound, then hold it in place for a moment while it expands. To prevent ear infections, wash your hands first.

### Who Needs Earplugs?



**If you have to shout to be heard by someone standing three feet away, the noise level is probably more than 85 decibels. Continuous exposure to this level of noise can cause hearing loss.**

If you have to shout to be heard by someone standing three feet away, you are in an environment with over 85 decibels of noise—a level that, if it continues over the eight hours of your

workday, will eventually damage unprotected ears. Your choice of earplugs, earmuffs or canal caps should be based on comfort, noise intensity and duration, and company policy. Earplugs have the advantage of being lightweight, inexpensive and, if disposable, low-maintenance. They are the protectors of choice for work in hot, enclosed environments or in situations where you keep hearing protectors on all day. They may be easily worn under hard hats and other head protection, as well as with eyeglasses. Because earplugs are difficult to remove and put in properly, and some must be thrown away when removed, they are a less desirable choice if you are wearing hearing protection only part of the time. Canal caps, another option, are like earplugs on a headband: the headband holds the caps tightly in the opening of the ear canal. They are lighter than earmuffs and easier to get on and off than earplugs. 