



SHIFT BRIEFING



HEARING PROTECTION – SELECTING THE PROPER PROTECTION FOR THE TASK?

When you are exposed to loud noises, whether in the workplace or at home or doing a hobby, the most critical question is what level of hearing protection do I need. Whether you choose to wear ear muffs or ear plugs, you still must choose the correct level of protection. We will break this down for you now.

To get a true answer to the question, we need to look at three things:

1. Finding the Noise Level of Activity

You will need a noise meter. While a true noise study would require a calibrated noise meter, you can make a close approximation using a free noise meter app. Take the reading near your hearing zone, or ears. Record it. If the noise is above 90 decibels, you should check to make sure your device is giving you enough protection.

Give Examples of Your Jobs That Produce Noise Levels Above 85 Decibels.

2. Finding the Noise Reduction Rating (NRR) of the Hearing Protection Device

Ear muffs and ear plugs have an NRR printed on the packaging. Noise Reduction Ratings are a number between 10 and about 35. You'll need that number, too.

Show the NRR on the Packages of the Hearing Protection Devices in Your Agency.

3. Finding the Effective Noise Reduction Rating of the Device

Noise Reduction Ratings are developed in laboratories and most likely will not reflect actual circumstances.

For ear muffs, the Effective NRR would be the same as the laboratory NRR, ASSUMING you wear them properly and not over a hoodie or slightly off your ear so you can hear your co-worker.

For ear plugs, they are rarely fully and correctly inserted, and they are constantly loosening as you talk, bend over, etc., so hearing researchers recommend subtracting 7 from the laboratory NRR and then halving that. So an earplug with an NRR of 33, would provide an Effective NRR of 13 decibels. ($33 - 7 = 26$ & $26 / 2 = 13$)

4. Finding if that is Sufficient Protection

Subtract the Effective Noise Reduction Rating from the noise level measured. If it is below 85 decibels, the device offers a sufficient level of protection for that task. If not, you should choose a different device or a device with a higher NRR and Effective NRR.

Do Another Example with the Employees Using Your Noise Levels and Their Hearing Protective Devices.