

## Noise Protection


CRITICAL PRACTICE


Worksite noise can injure your hearing up to and including permanent hearing loss.

The severity of hearing loss can depend on

- sound frequency and intensity
- duration of exposure
- your own susceptibility to noise-induced hearing loss.



### Pause for Safety

- Hazards**
- permanent hearing damage
  - temporary hearing loss
  - physical and psychological stress
  - distraction / concentration loss
  - interference with communication
  - interference with audible warning signals

### PPE



### Additional PPE



- Controls**
- hearing protection (ear muffs, ear plugs)
  - environmental sound mitigation measures
  - warning labels and signage

## Strategies and Procedures

### Hearing Protection

You have access to appropriate PPE for noise exposure.

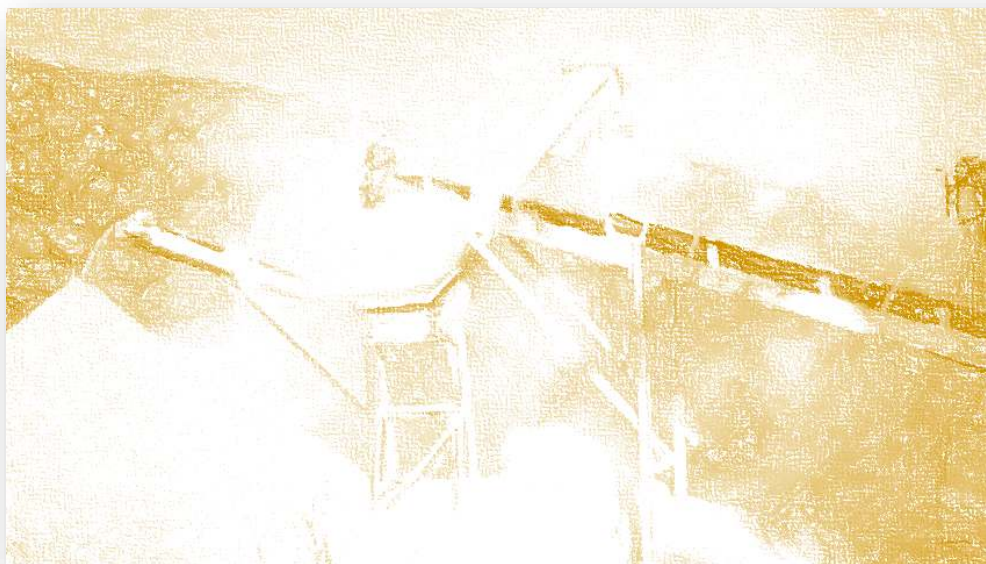
- Standard issue ear plugs are available from your supervisor.
- Ear Muffs and specialized plugs may be available from your safety rep.



**Hearing protection is to be used when the noise level is 85 decibels or greater.**

All tasks exposed to noise have been or are being monitored for noise exposure with a noise dosimeter.

- Tasks are rated for noise exposure.
- Wear the required hearing protection for each job.
  - Ask your safety rep if in doubt.
- Workers unable to wear the standard plugs or muffs should ask your safety rep to investigate specialized and/or more suitable protection.



## Ear plugs

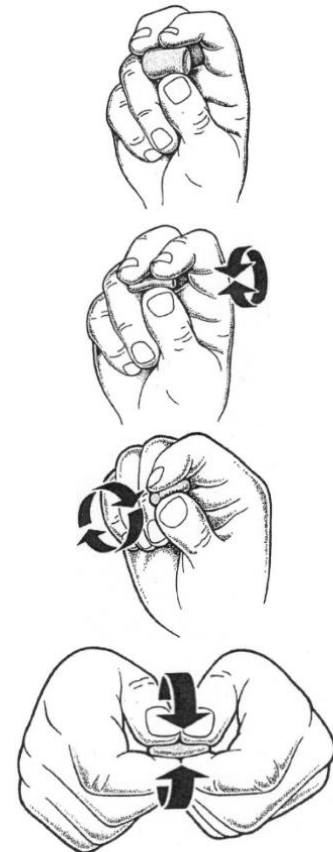
- Ear plugs can reduce noise as much as 33 dba's<sup>1</sup>.
- Plugs come in different sizes, material and styles.

Check with your safety rep about other types of ear plugs if the standard plug does not work.

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### Ear plug insertion technique

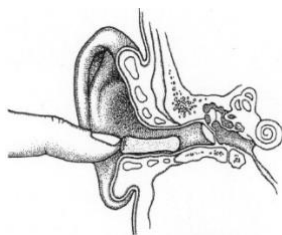
1. Hands and plugs should be clean prior to use.
2. Roll the plug into a very thin crease-free cylinder.
  - ⇒ The cylinder should be as small in diameter as possible, as tightly compressed as you can make it.
  - ⇒ Do not worry about hurting the plug — it is designed to be compressed in this way.
  - ⇒ Crease-free rolling is accomplished by squeezing lightly as you begin rolling, then applying progressively greater pressure as the plug becomes more tightly compressed.
  - ⇒ Make sure you roll (not twist), the plug into a cylinder rather than any other shape such as a cone or a ball.
  - ⇒ The plug is best rolled between the fingertips.
  - ⇒ You can roll the plug in any direction comfortable for you.
  - ⇒ Another option, for those with less finger strength, is to use the thumbs and forefingers of both hands.



3. Insert by pulling ear outward and upward.
4. Once inserted hold in place until plug expands
  - ⇒ If voices sound distorted, the plug has been inserted correctly.



<sup>1</sup> The NRR (noise reduction rating) listed on hearing protection is for ideal ears and a perfect fit.




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## Ear muffs

- Ear muffs can reduce noise up to 23 dba's.<sup>2</sup>
- Ensure muffs fits completely over ears and have a good seal.
- Replace or repair cushions as needed to maintain good seal.
- Safety glasses reduce the effectiveness of muffs.

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## Combination muffs & plugs

- Together, these can reduce up to 38 dBA's of noise.
- An ear muff only reduces noise by an additional of 5 dBA when combined with ear plugs.

### *Noise Exposure Reduction*

It's company policy to prevent hearing loss by:

- reducing noise levels through:
  - engineering design controls;
  - equipment maintenance;
  - modifying existing equipment where practical and isolating noise.
- reducing noise exposure times where possible
- conducting a monitoring program.

### *Monitoring Program*

- Your safety rep will regularly conduct dosimeter noise level testing of work environments.

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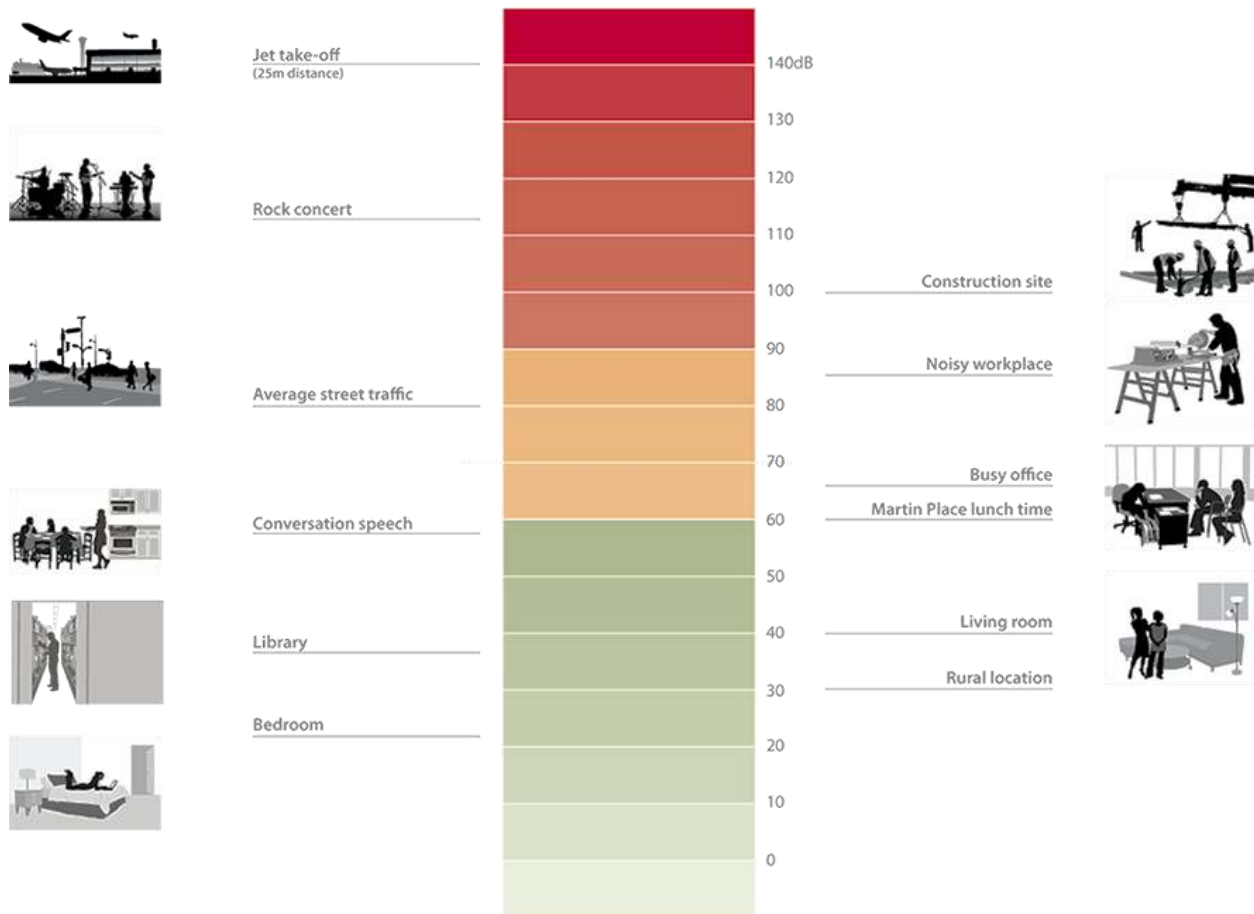
We promote hearing care by:

- recommending you exercise similar practices off the job when exposed to noise through use of music devices, power tools, firearms, snowmobiles, etc.
- offering training for all workers
- on-going orientation, during safety huddles and individual instruction by the attendant during audiometric testing.
  - Training includes selection, use, and maintenance of hearing protection equipment required to be used at a work site in accordance with the manufacturer's specifications.

<sup>2</sup> The NRR (noise reduction rating) listed on hearing protection is for ideal ears and a perfect fit.

- Within six months of your hiring date and not more than 12 months after the initial baseline, all workers exposed to noise must complete a hearing test (audiometric exam) to be conducted by our contract Audiometric tester.
  - Tests are repeated at least every second year thereafter.
- The audiometric exam will determine the status of hearing and the effectiveness of noise control and hearing protection.
- Referral for further medical assessment will occur should deterioration in hearing be evident.
- Confidentiality will be maintained. All audiometric tests are kept in your health record and released only with your written consent.
- The audiometric tester will take opportunities to instruct and reinforce information regarding hearing and hearing protection with workers on an individual basis.

## Noise level examples



### Maximum allowable noise exposures

- No continuous exposure in excess of 115 dBA is allowed
- Pain begins at 125 dBA

This chart illustrates maximum permissible exposures for the unprotected ear.

Sound Level (dB)	Maximum Daily Exposure
115	7.5 minutes
110	15 minutes
105	30 minutes
100	1 hour
95	2 hours
90	4 hours

Sound Level (dB)	Maximum Daily Exposure
85	8 hours
80	16 hours

You and your co-workers have access to several types of hearing protection. All workers must wear hearing protections whenever exposed to noise levels above 85 decibels (dB).

[Learn more](#)

