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Opening Points

- This presentation is based on current United States federal requirements. US state or other country requirements may be different. Always consult User Instructions and follow local laws and regulations.
- This presentation contains an overview of general information and should not be relied upon to make specific decisions. Completing this program does not certify proficiency in safety and health.
- Information is current as of the date listed for this presentation, and requirements can change in the future.
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Key takeaways

- Motivate the workers to wear hearing protection at work and at home.
- Identify hearing protection selection criteria.
- Explain hearing protection types/options for various workers.
- Experience and understand how to properly fit hearing protection.



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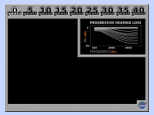
What is your favorite sound?







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Is this your favorite sound?

Tinnitus: Ringing or buzzing in ears

Reference: Tinnitus simulation from American Tinnitus Association
https://www.ata.org/understanding-facts/symptoms

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Too Much Exposure to Noise and Life Effects

Can you name some effects?

A. Poor Communication
B. Entertainment-enjoyment of music/sounds
C. Stress
D. Difficulty at work
E. None of the Above
F. Others

G. All of the above

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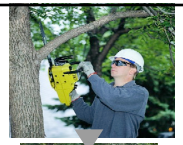
The Danger of Loud Noise

What are some effects and some examples?

- Any loud sound can damage hearing
- ***Examples***: Music, Noise Gunfire, Motor Sports
  Single loud blast, explosion, or
  Repeated exposure to loud sound
- Long term effects may be: Less obvious than other physical hazards



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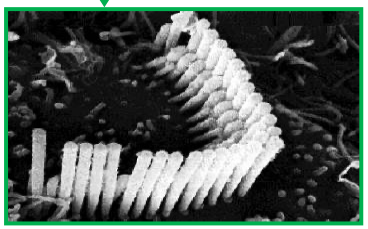
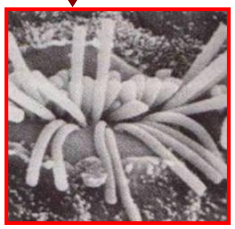
Health Effects

- Before Noise
- Healthy hair cells with minimal noise exposure



- After Noise
- Damaged hair cells after prolonged noise exposure



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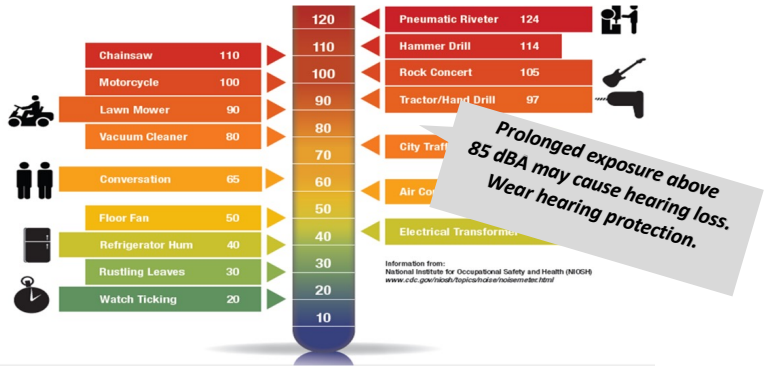
Sound Level in Decibels dBA



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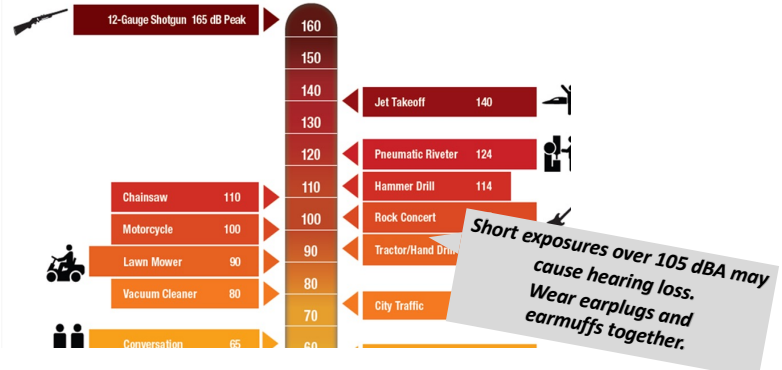
Sound Level in Decibels dBA



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How loud is too loud?

- Sounds at 85 dBA and higher are hazardous with prolonged exposure.
- Hearing is damaged faster at high levels
  - ***2 hours at 100 dBA is equal to 8 hours at 90 dBA.***

Rule of thumb: It's too loud if you have to shout to be heard by someone 3 feet away from you.

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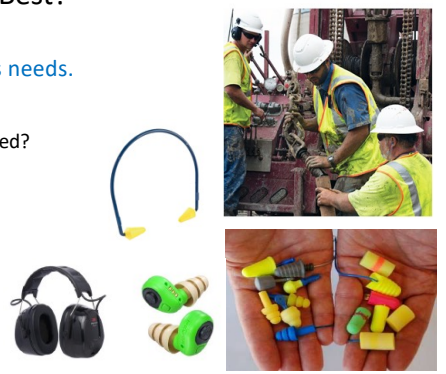
Which Hearing Protector is Best?

Its more than just the NRR.

Select a HPD to satisfy the worker's needs.

- NRR – how much reduction is needed?
- Comfort
- Hearing & communication needs
- Pre-existing hearing impairment
- Ease of use
- PPE integration
- Environmental conditions



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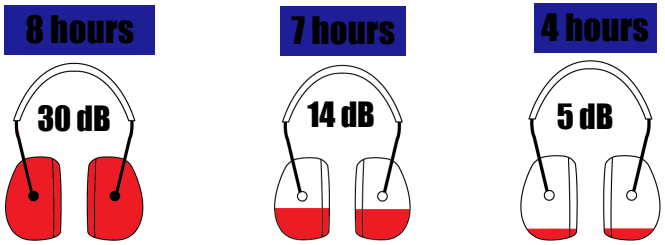
Effective Protection Drops Quickly –When?

When Hearing Protectors Are Not Worn



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Address worker hearing & communication needs

Fact: Hearing protection when worn correctly reduces **both** unwanted (noise) & useful sound (speech, warning signals).

Assess the worker's hearing needs:

- What do your workers need to hear?
- Are workers removing their hearing protectors to talk?
- Would your workers be more motivated to comply if they could hear better?
- Do workers have pre-existing hearing impairment?

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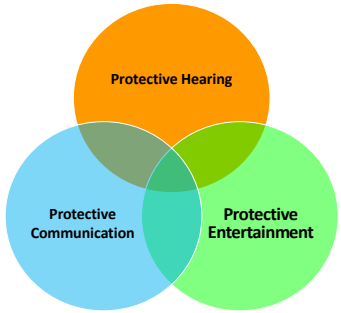
3M™ PELTOR™ Advanced Hearing Protection Categories

Provides something beyond hearing protection



Protective Hearing:
Helps protect hearing when its noisy, ability to hear better in quiet.

Protective Communication:
Helps protect hearing and allow you to clearly communicat in noise

Protective Entertainment:
Helps protect hearing while allowing you to listen to music or other audio entertainment

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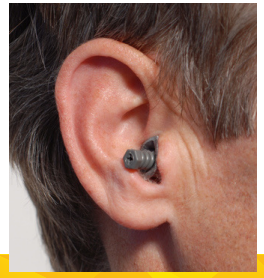
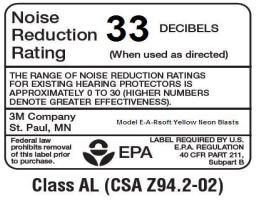
Noise Reduction Rating -*NRR – What is it?*

A. Describes "Best Fit" of HPD when worn in lab.





In workplace, the noise reduction obtained by an individual worker is often much lower than the NRR.

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Practice: Inserting earplugs

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Practice using Hearing Protectors!

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Practice proper insertion: Rolling Foam Earplugs

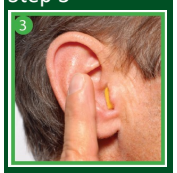
Step 1

1. ROLL earplug slowly with thumb and & fingers. Gradually increase pressure to **COMPRESS** earplug to very thin crease-free cylinder.

Step 2

2. INSERT compressed earplug well into ear canal WHILE PULLING ear outward & upward with opposite hand.

Step 3



3. CHECK FIT after earplug expands in ear: TOUCH earplug. You should feel the end of the earplug.

Step 4

4. If you feel most of earplug outside the ear canal, remove earplug and repeat fitting.

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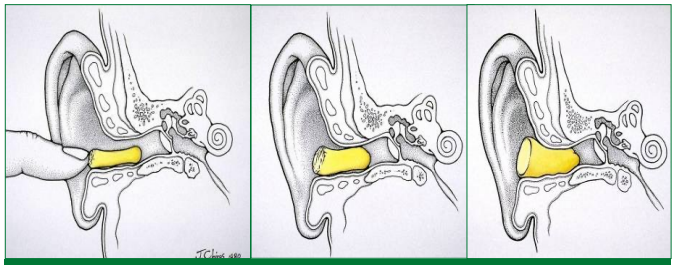
Is this Correct/Inadequate Roll Down?



Correct Fit !
➡Plug Conforms to Ear Shape

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Reminder - Protect Your Hearing Outside of Work

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Q&A

Thank you!

Key Takeaways/Outcomes:

1. Describe why hearing protection is important.
2. Describe hearing protector selection criteria.
3. Explain why it is important to properly fit hearing protectors.

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