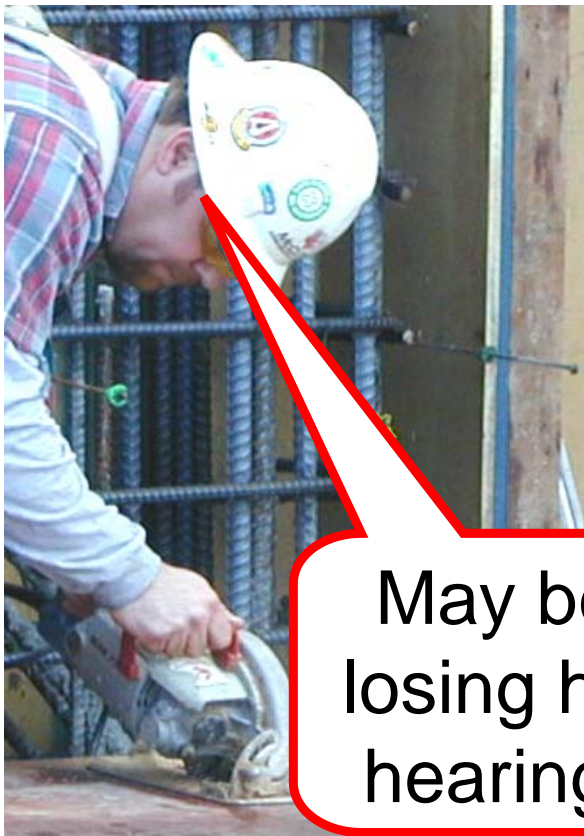


Preventing Hearing Loss in Construction: What *You* Need to Know

Session 1: Noise and Hearing Loss



May be
losing his
hearing!



Saving
his
hearing!

Why you are here today

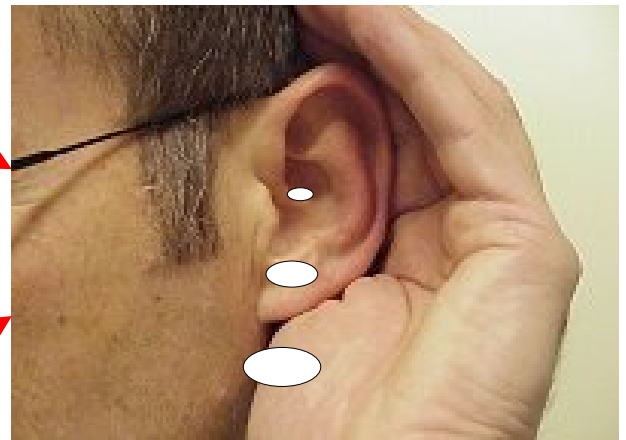
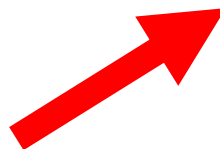
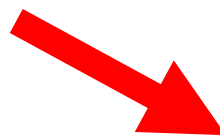
- Construction is noisy
- High noise can cause hearing loss
- Your employer wants you to know how to *prevent* hearing loss
- Part of overall safety program



“I’m not going to let noise hurt *MY* hearing.”

Temporary effects of noise

- Hearing “burned” by high noise
- To heal, ears need quiet!
- Might have a “hear-burn” if:
 - Hearing is muffled or ears ring
 - Car radio test



What??

Permanent effects of noise

- *Anyone* can lose their hearing!
- More noise = worse hearing loss
- Small “hear-burns” add up slowly
- Hearing aids *can't fix* hearing loss

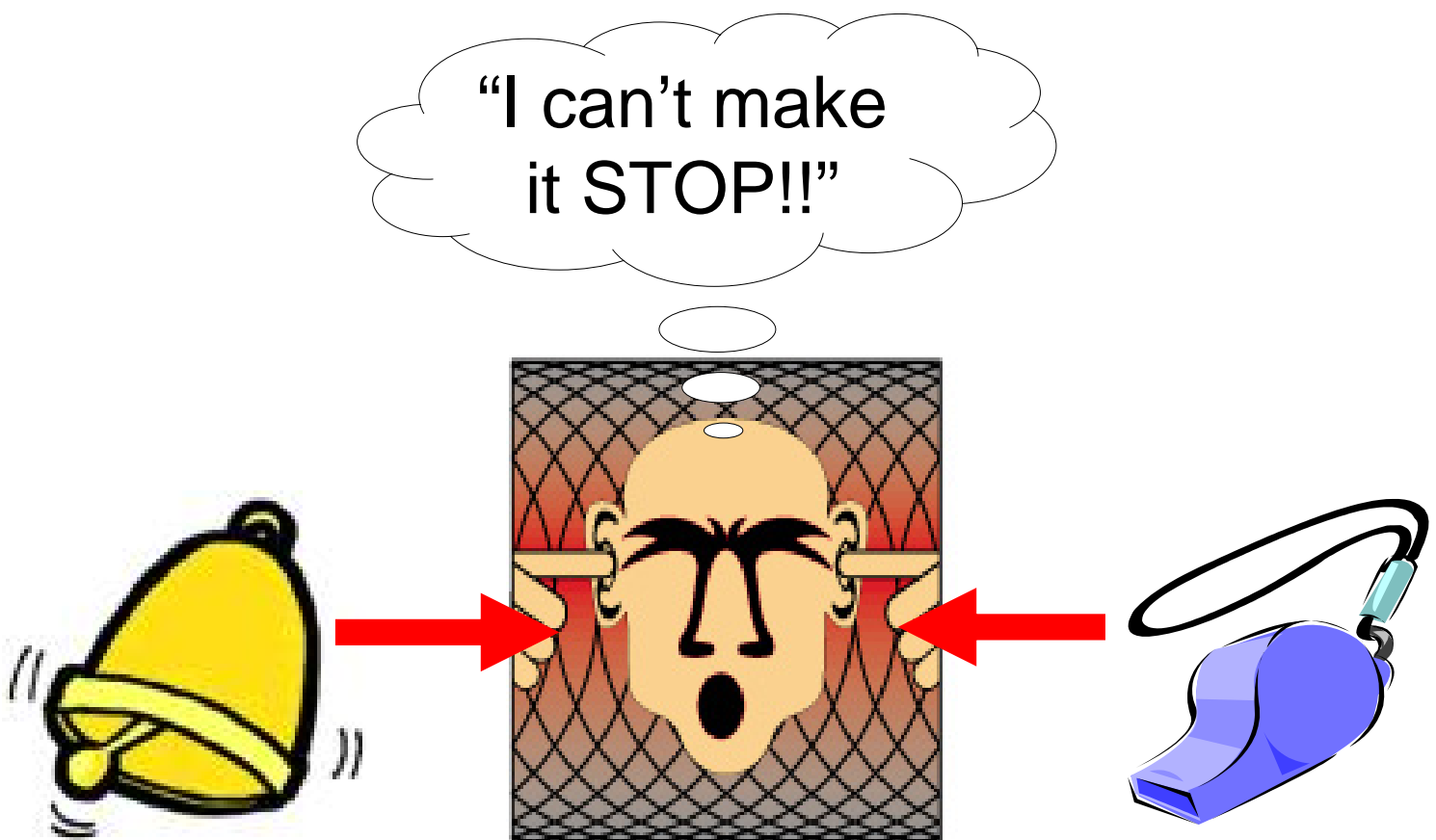


Some things you may miss with a hearing loss



Another thing you may get from high noise

- Tinnitus = noise in your ears
- *Cannot* be controlled or cured
- Hard to sleep and concentrate



Noise off the job

- *Doesn't matter* where noise comes from – if it's too loud, it can hurt your hearing
- Limit time in high noise – on *and* off the job



Noise levels (decibels)

Familiar sounds

dB

Sound

↑140



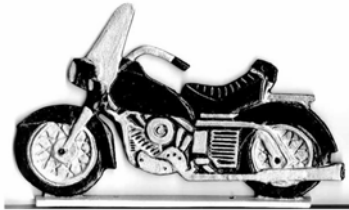
110
(100X!)



100
(10X!)



95



90
(1X)



85 Noisy bar,
restaurant

Construction tools

dB

Sound

↑140



110

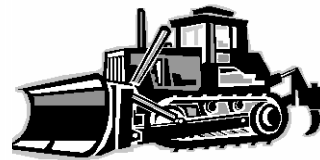
105



100



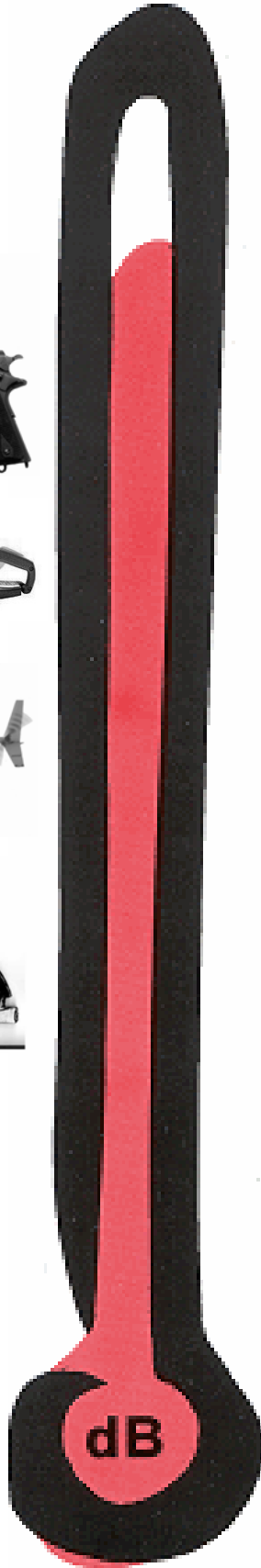
95



90



85



Noise in Washington state

- Under 85 decibels = OK
- 85 decibels for 8 hours = X
- 100 decibels for 1 hour = X
- 115 decibels for 15 minutes = X
- If X, reduce noise level or exposure time to get below 85 decibels on average



How to know if levels are unsafe (over 85 *decibels*)

- Must raise voice to talk
- Have a “hear-burn”
- Noise measurements
- Signs or labels say so



Hearing conservation programs *prevent* hearing loss

- Training
- Testing noise levels and hearing
- Reducing noise levels and time in high noise
- Using hearing protectors



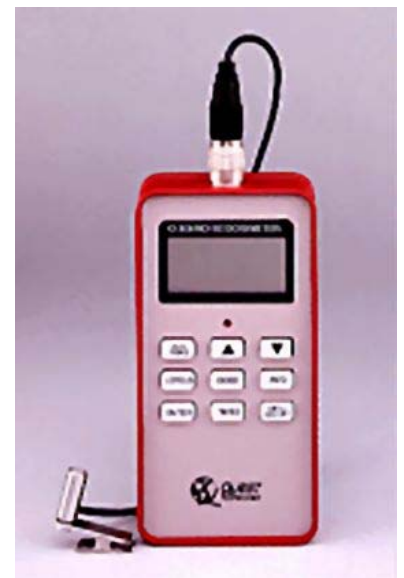
“I can prevent hearing loss if I lower my noise exposure”



Measuring noise

- Sound level meter
- Dosimeter
- You have a right to know what the noise levels are onsite

EXPERIMENT!



Ways to reduce noise

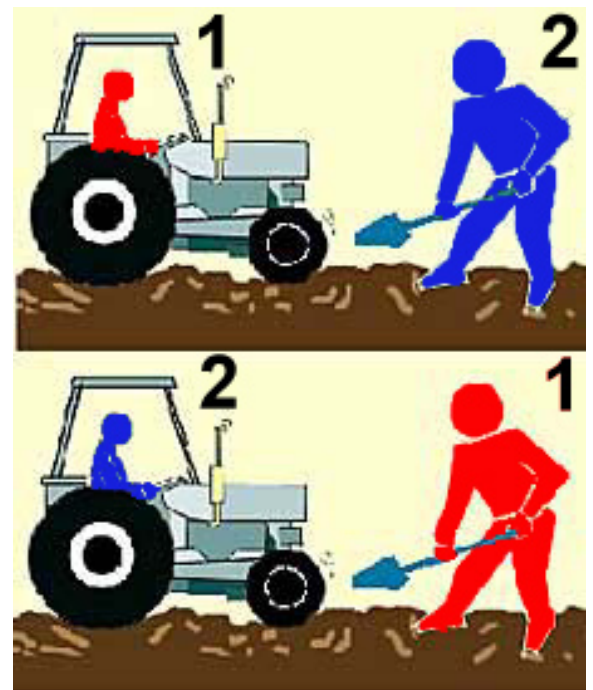
- Barriers



- Reduce time in noise



- Trade off noisy and quiet jobs

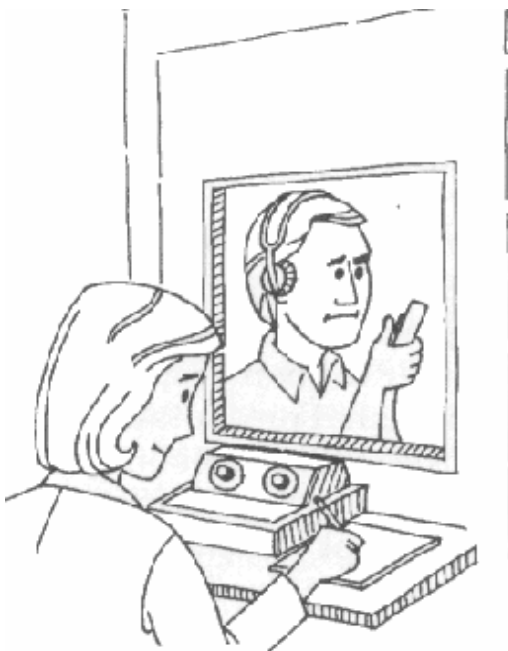


- Get away from noise

- Wear hearing protectors

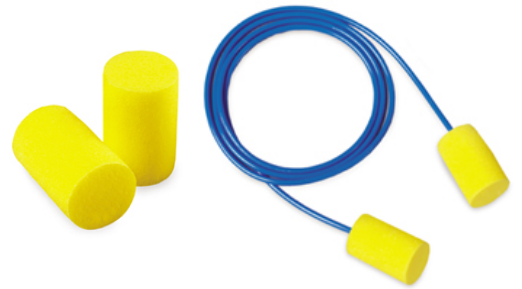
Hearing testing

- Employer should test your hearing yearly
 - Shows if you have a hearing loss
 - No “hear-burn” at time of test!
- You have a right to a copy of your hearing test results



Hearing protectors

- Needed above *85 decibels*
- Like shoes - one size won't fit all!
- Roll-down earplugs



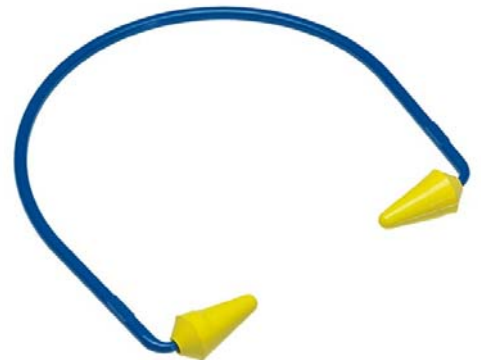
- Premolded earplugs



- Earmuffs



- Banded ear caps



Common thoughts about construction noise

“I’ve already lost some hearing, so it doesn’t matter”

“It’s loud, but there’s nothing I can do about it”

“This is noisy, but I’m not doing it long enough to need hearing protection”

“I’m used to the noise”

“I can’t tell when it’s too loud”



?? Questions ??

- Is construction noisy enough to cause hearing loss?
- Is anyone immune from hearing loss?
- How can you tell when you're exposed to too much noise?
- Where can you get hearing protection on this site?
- What are two ways you can reduce your noise exposure?

Preventing Hearing Loss in Construction: What *You* Need to Know

Session 2: Hearing Protection Devices

Do this...



To avoid this...



Why you are here today

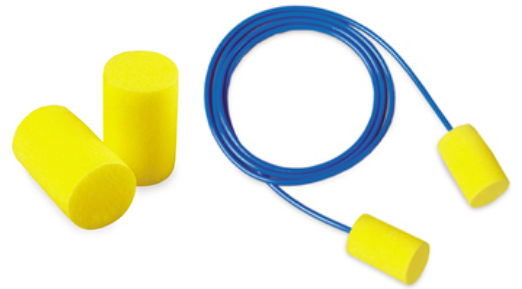
- Noise can hurt hearing forever, but hearing loss CAN be prevented!
- Your *employer* is working to make sure you don't lose hearing
- *You* need to know how to protect yourself with hearing protection

“I won't be doing this for long, but it's noisy enough for hearing protection”



Hearing protectors

- Needed above *85 decibels*
- Like shoes - one size won't fit all!
- Roll-down earplugs



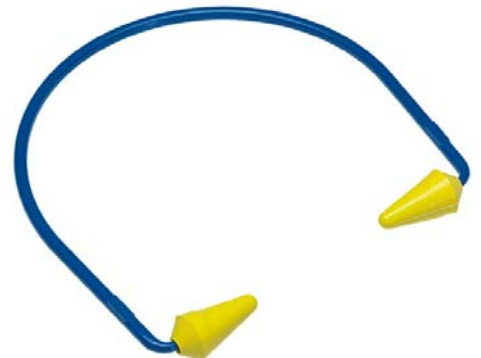
- Premolded earplugs



- Earmuffs



- Banded ear caps



Benefits of hearing protection

- Reduce noise to safe levels
- Can make it *easier* to hear machinery or talk to coworkers
- Reduce background noise
- Keep dirt, water out of ears

Without earplugs

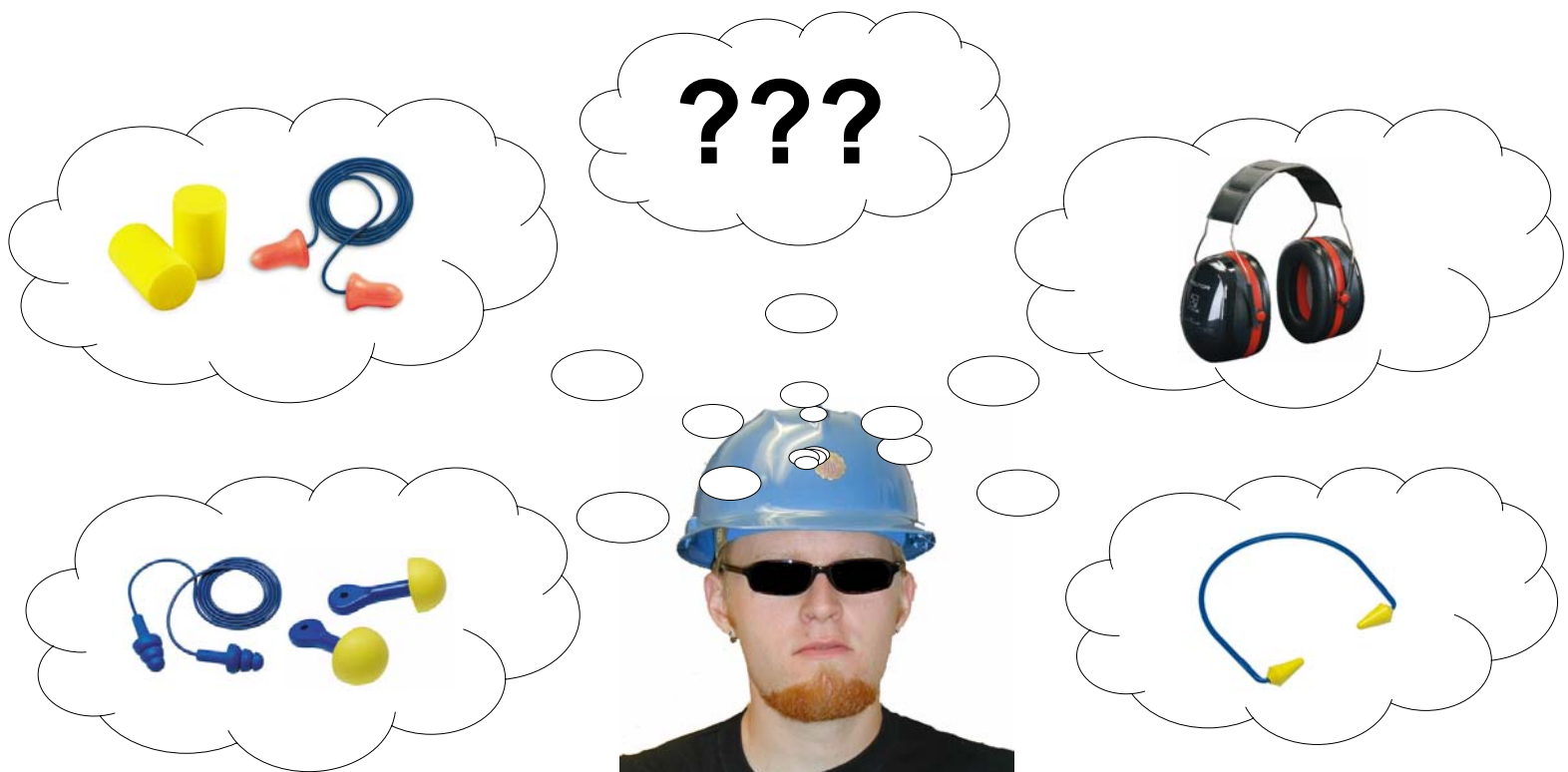


With earplugs



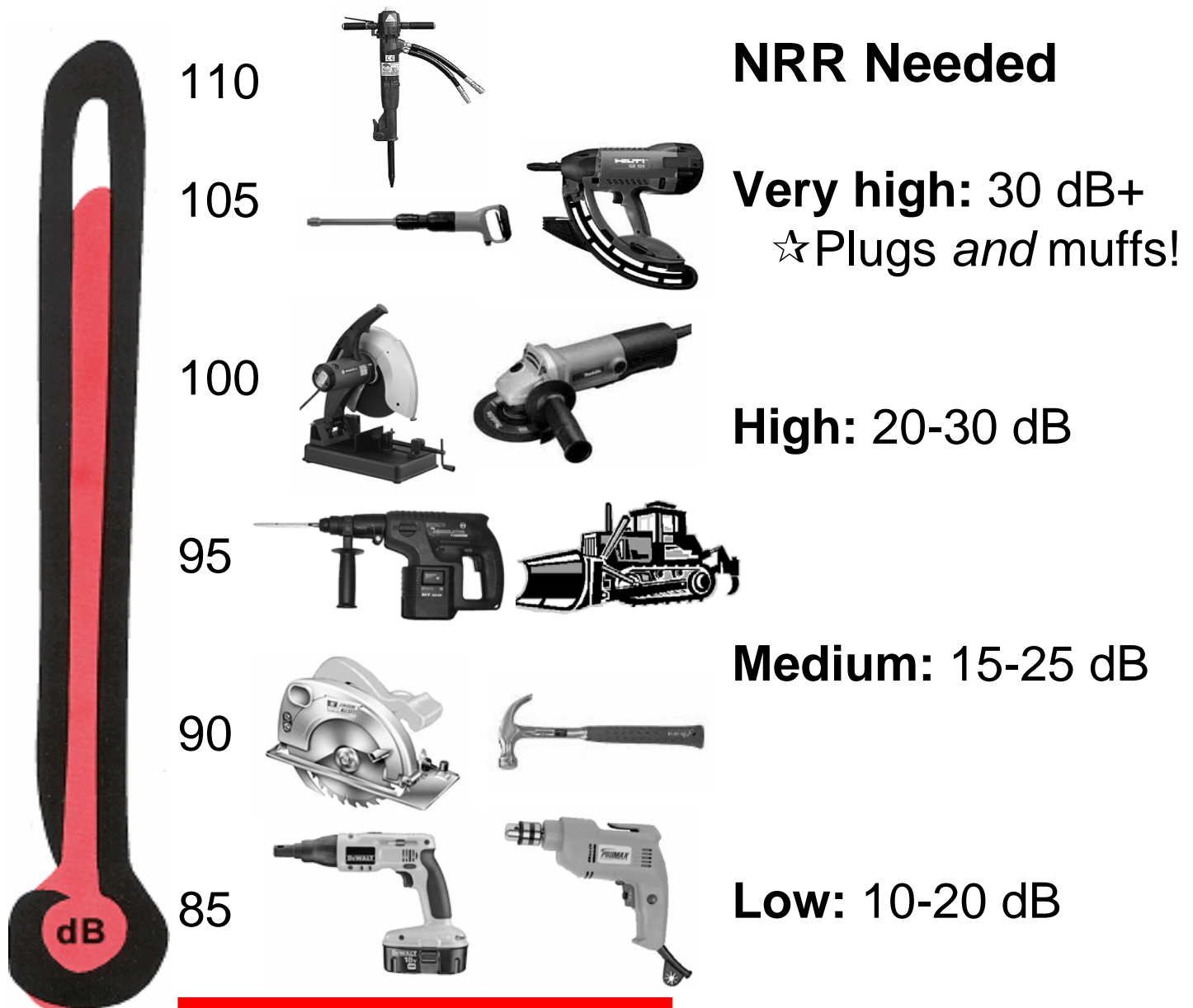
How to pick a hearing protector

- Comfortable
- Easy to use properly
- Block enough noise (NRR)
- NOT cotton, wax or headphones
- Let you communicate



Noise Reduction Rating (NRR) on protectors

- Higher NRRs block more sound
- High NRRs may block *too* much



Common thoughts about hearing protectors

“They’ll give me an ear infection”

“They take too long to put on”

“Things sound funny when I wear them”

“They’ll poke out my eardrum”

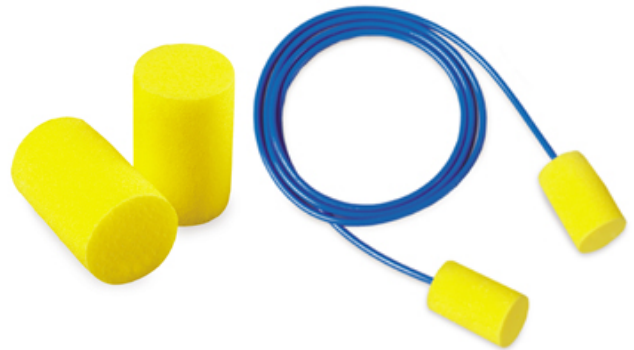
“They’re uncomfortable”

“I can’t hear important sounds or people talking”



Roll-down earplugs

- What's good about them:
 - Can be very comfortable
 - Can you find the NRR?
 - Disposable
- What's bad about them:
 - Hardest to wear correctly
 - Need clean hands
 - May not fit all ear canals



Four steps to insert roll-down earplugs

EXPERIMENT!



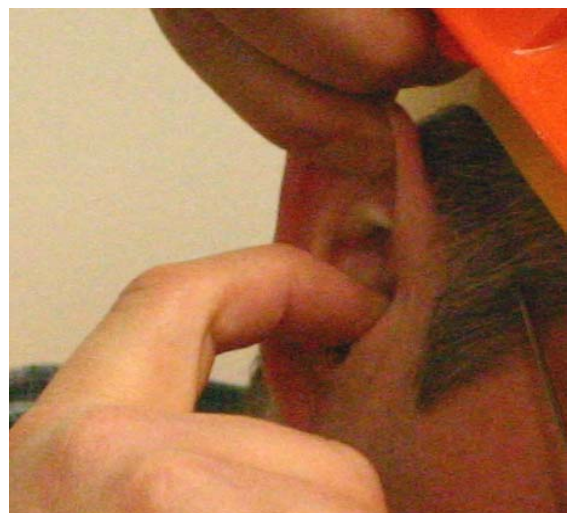
1. Roll plug



2. Pull ear



3. Push plug



4. Hold plug

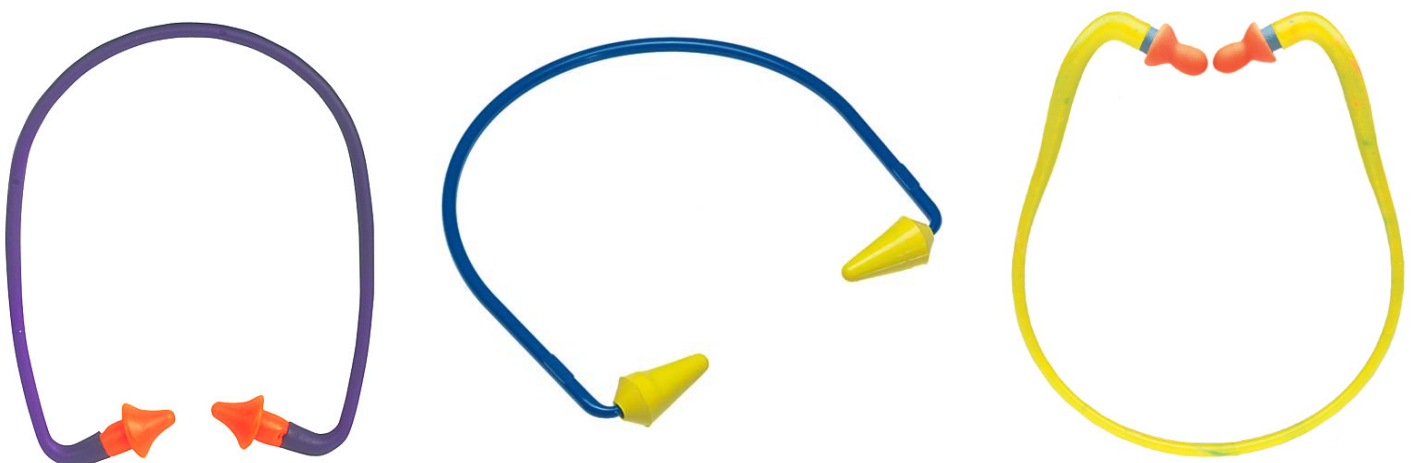
Premolded earplugs

- What's good about them:
 - Easy to insert, different sizes
 - Can be used with dirty hands
 - Disposable or reusable
- What's bad about them:
 - Good fit may be difficult
 - May be uncomfortable



Banded ear caps

- What's good about them:
 - Very easy to put on and take off
 - Can be used with dirty hands
 - Reusable
- What's bad about them:
 - Can be hard to get a good fit
 - Band may “squeeze” your head
 - Your voice may sound loud to you



Earmuffs

- What's good about them:
 - Easiest protector to use
 - Can attach to hardhat
 - Reusable
- What's bad about them:
 - Can be uncomfortable
 - May feel heavy or bulky



How to tell if you're wearing protectors properly

- Proper fit is *really* important!
- Sounds change when they're worn
- Earplugs:
 - Feel snug and secure
 - Not hanging out of your ear
- Earmuffs:
 - Should cover entire ear
 - Unbroken seal



When to wear hearing protectors

- In noise over *85 decibels*
 - 85 decibels = noisy restaurant
- If you have to shout to be heard
- If you have a “hear-burn”
- Not sure if it’s too noisy? ASK!



Hearing protector tips

- Find some you'll wear and keep them handy
- *Always* wear them in high noise
- Headphones *do not* protect you
- Speak up!



What if you don't wear hearing protectors?

- You may be above the safe level
- You could lose your hearing
- To get the most protection, *always* wear them during high noise

Protectors only work if you wear them!

Plugging ears is NOT hearing protection!



You *will* get used to hearing protectors

- Try different protectors if yours:
 - Hurt or don't seem to work
 - Make it hard to talk or hear
- Finding a good protector now is better than not hearing well later!



?? Questions ??

- Is it okay to only wear protectors sometimes in high noise?
- What are two ways to know if you need hearing protection?
- What should you do if you don't like your current protector?
- How can you tell if you're wearing protectors correctly?
- What are two benefits of wearing hearing protection?