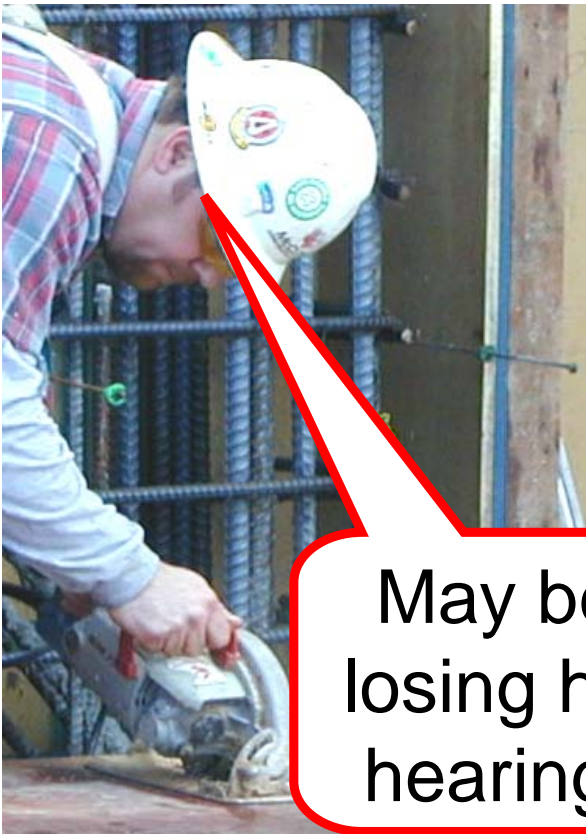


# Preventing Hearing Loss in Construction: What *You* Need to Know

## 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

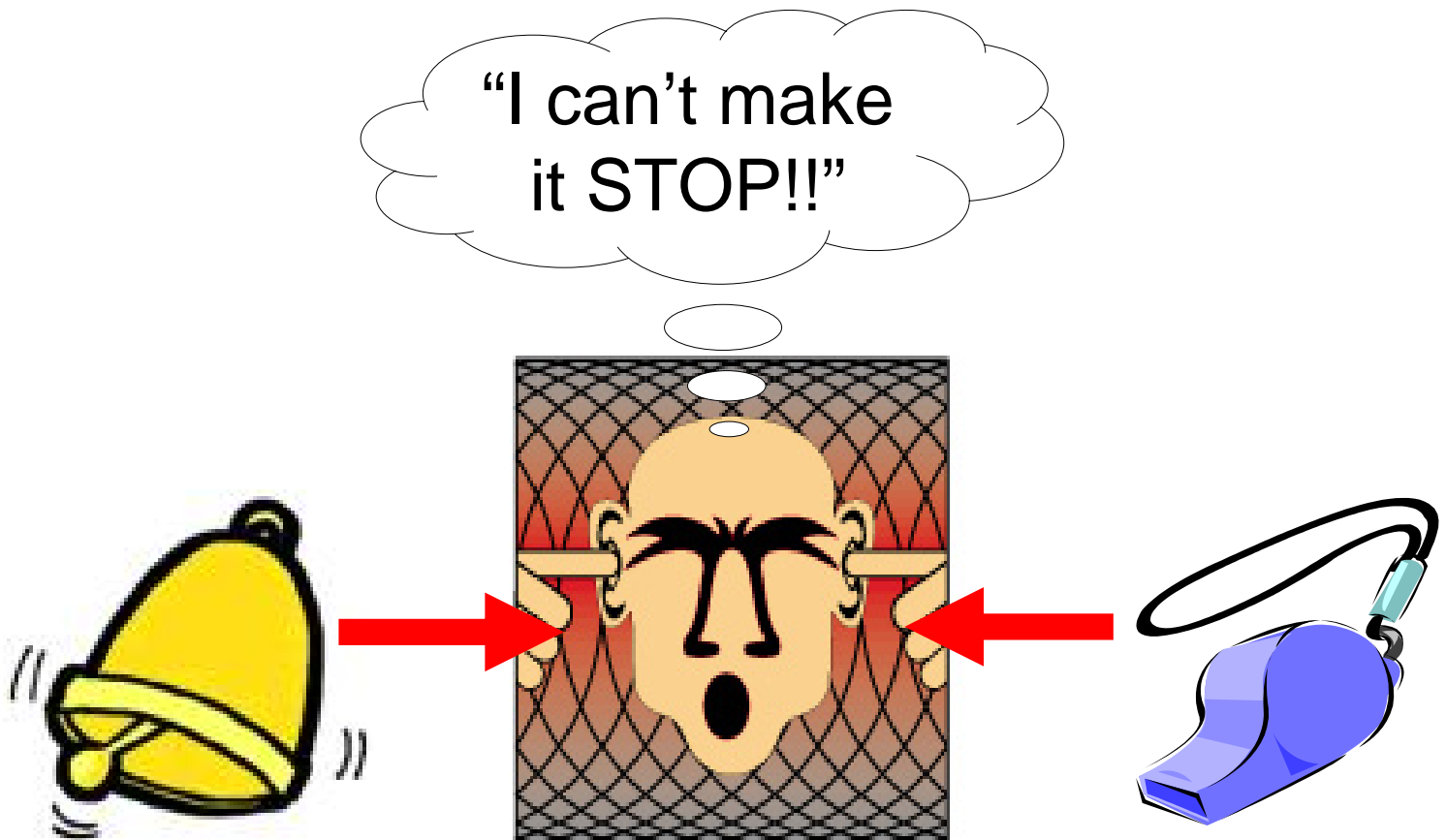


# Some things you may miss with a hearing loss



# Another thing you may get from high noise

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



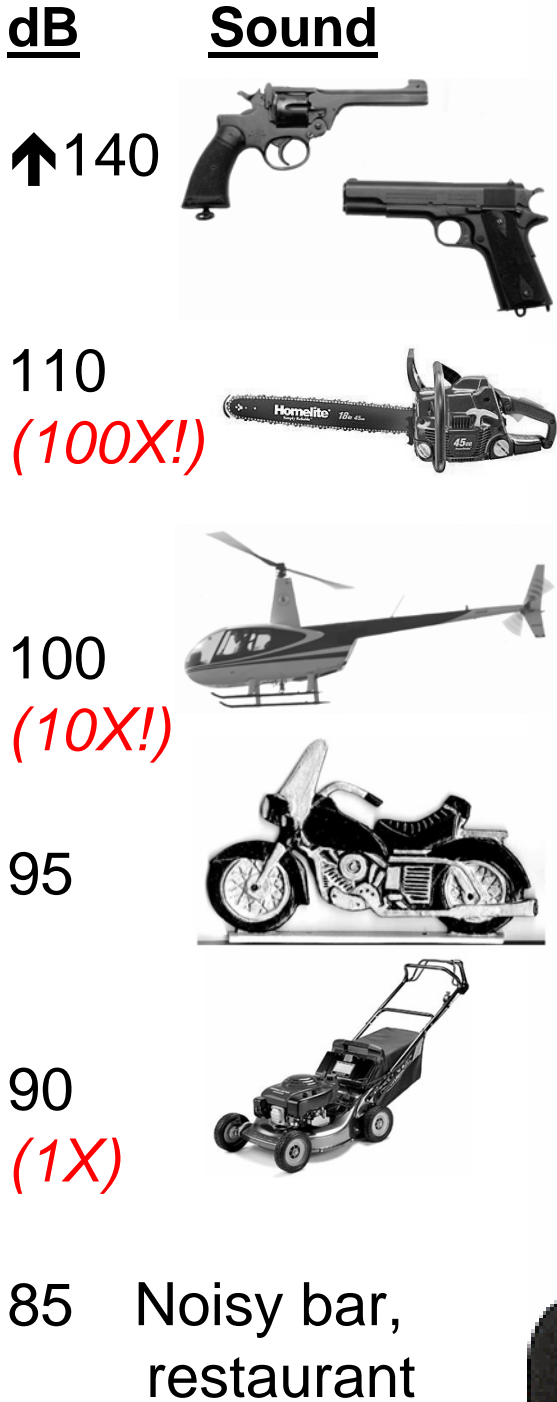
# Noise off the job

- *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

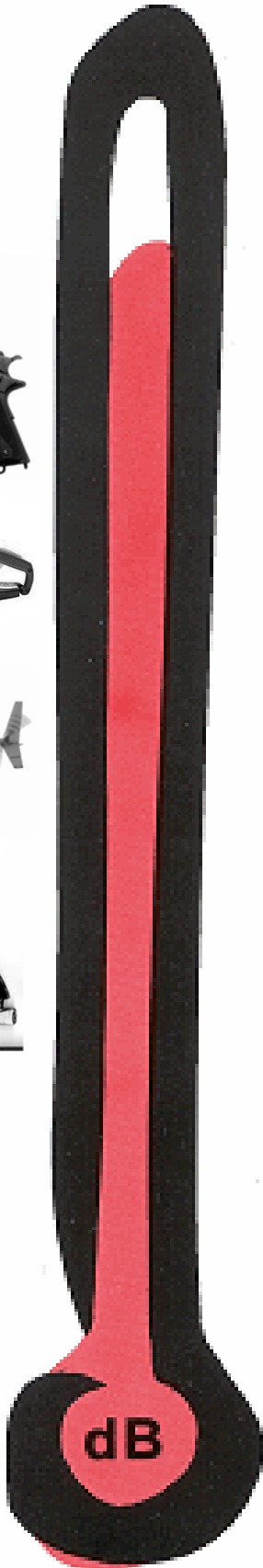


# Noise levels (decibels)

## Familiar sounds



## Construction tools





# 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



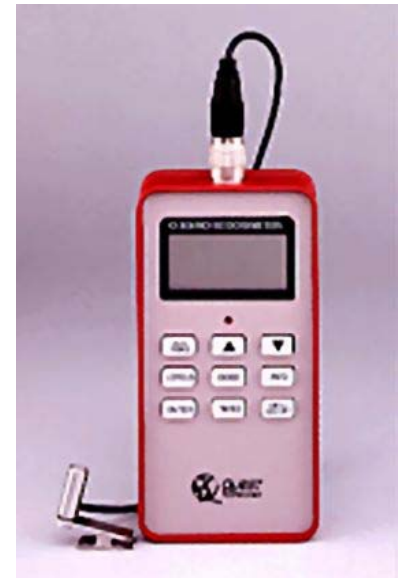
“I can prevent hearing loss if I lower my noise exposure”



# Measuring noise

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

EXPERIMENT!



# Ways to reduce noise

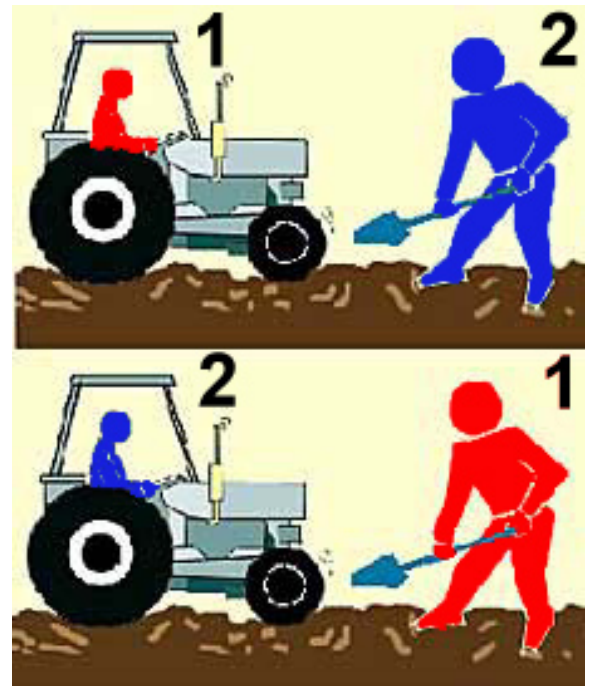
- Barriers →



- Reduce time in noise →



- Trade off noisy and quiet jobs →

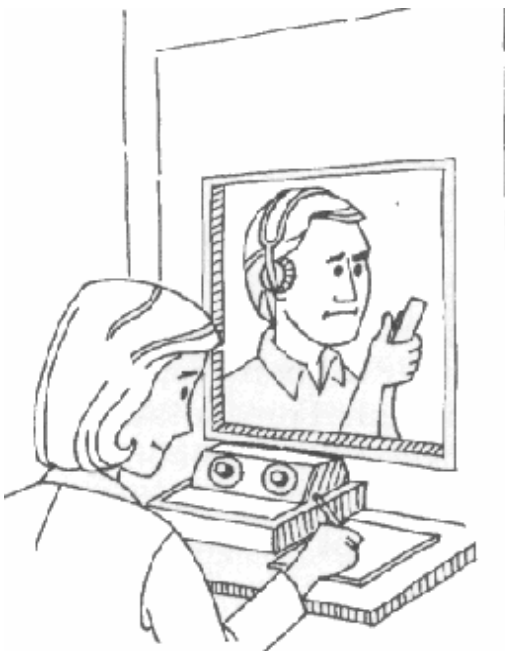


- Get away from noise

- Wear hearing protectors

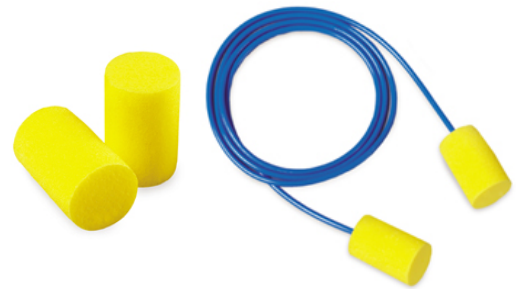
# Hearing testing

- 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



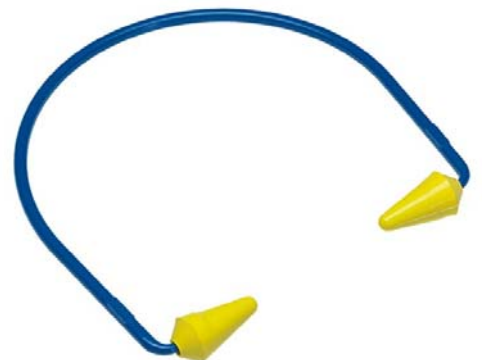
- Premolded earplugs



- 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

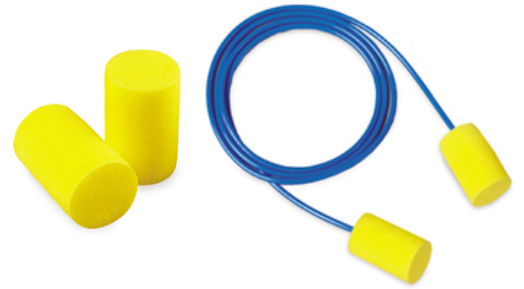
- Noise can hurt hearing forever, but hearing loss CAN be prevented!
- Your *employer* is working to make sure you don't lose hearing
- *You* need to know how to protect yourself with hearing protection

“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



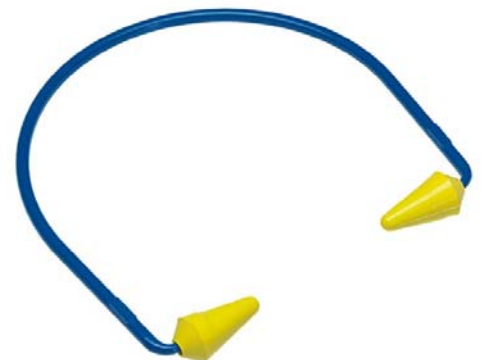
- Premolded earplugs



- 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

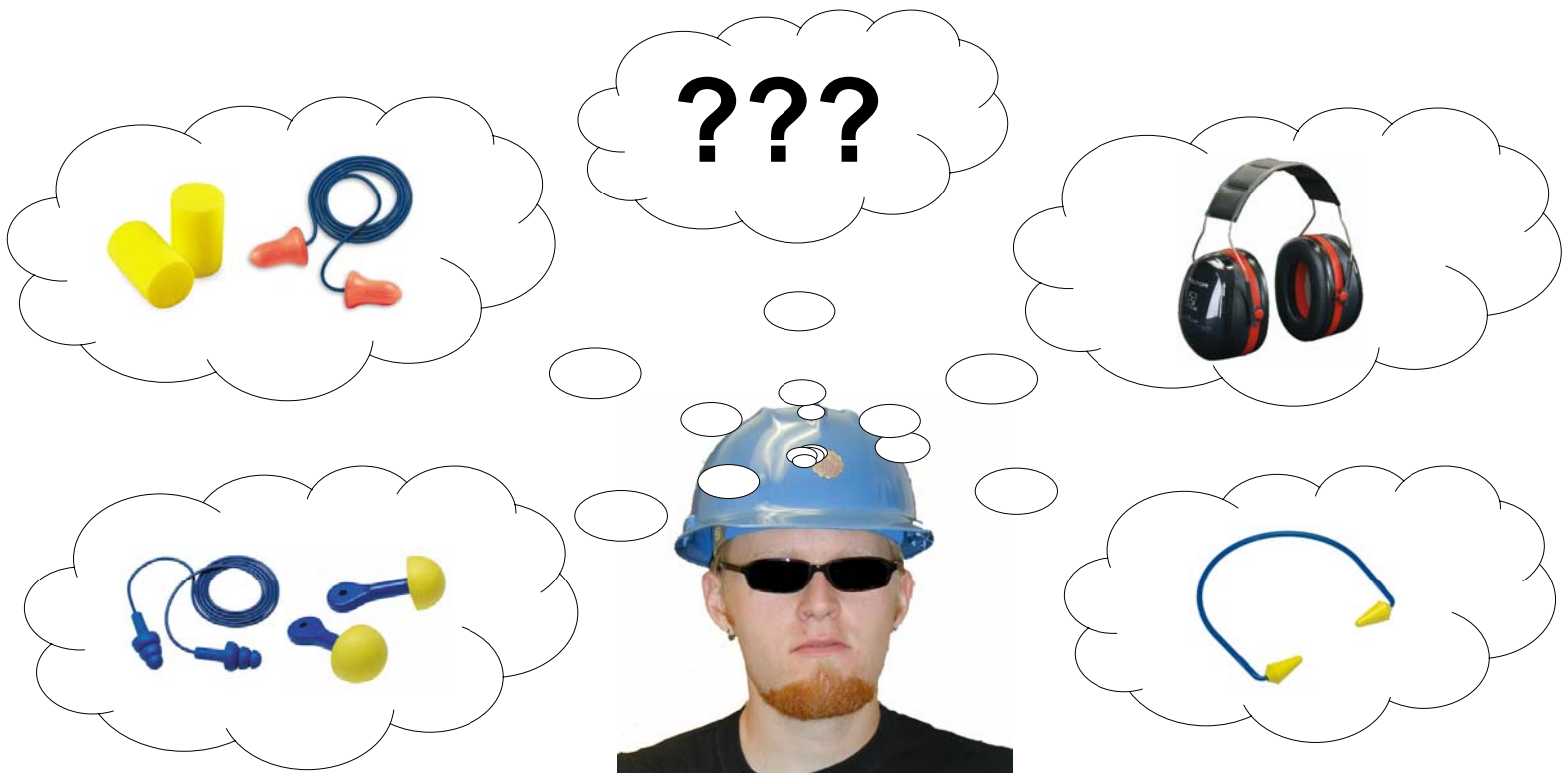


With earplugs



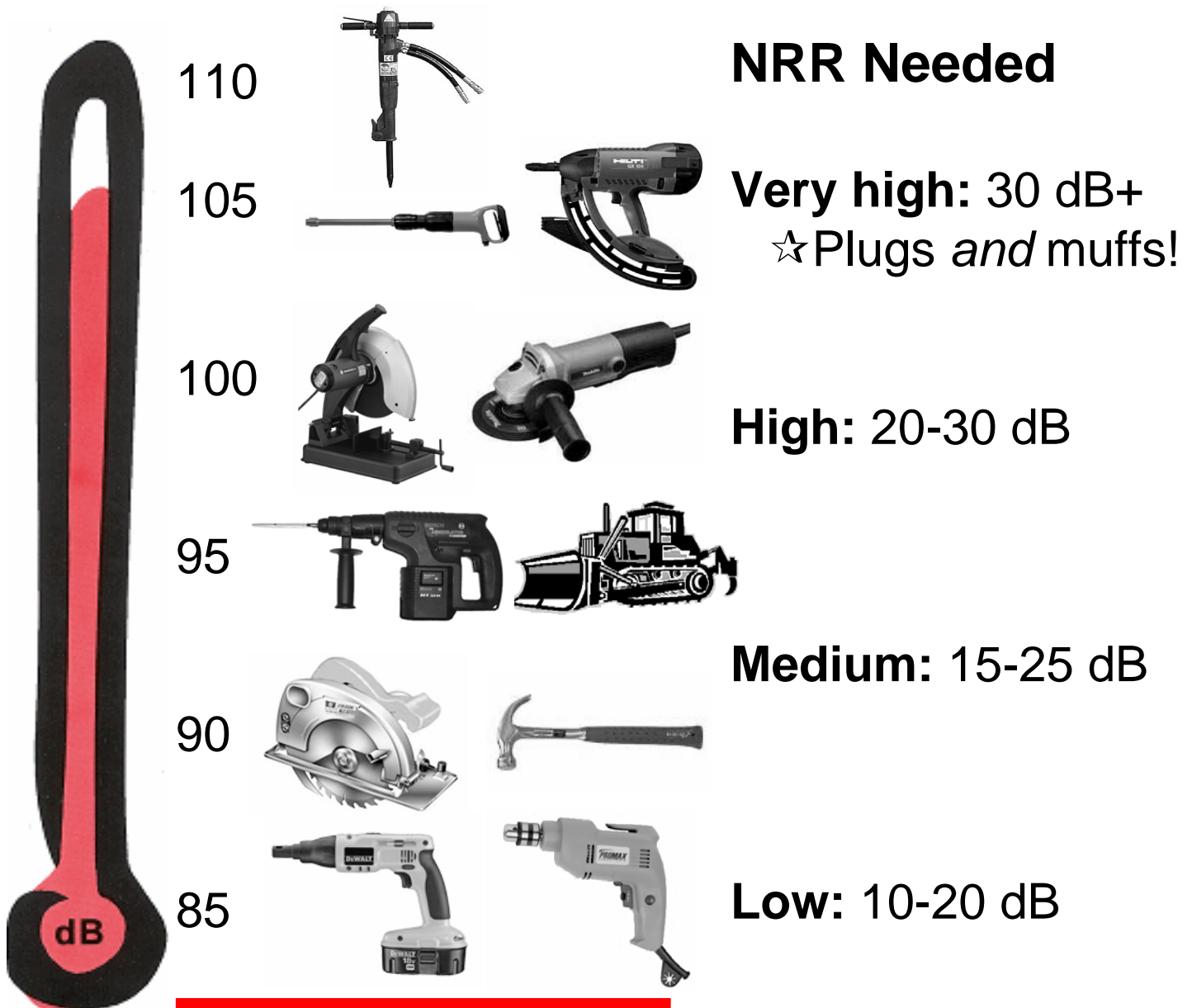
# How to pick a hearing protector

- 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”

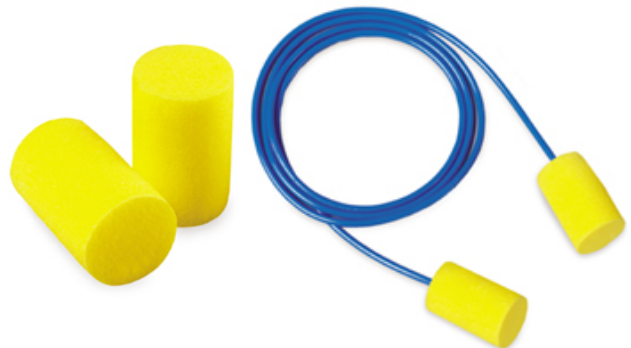
“I can’t hear important sounds or people talking”





# 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!**



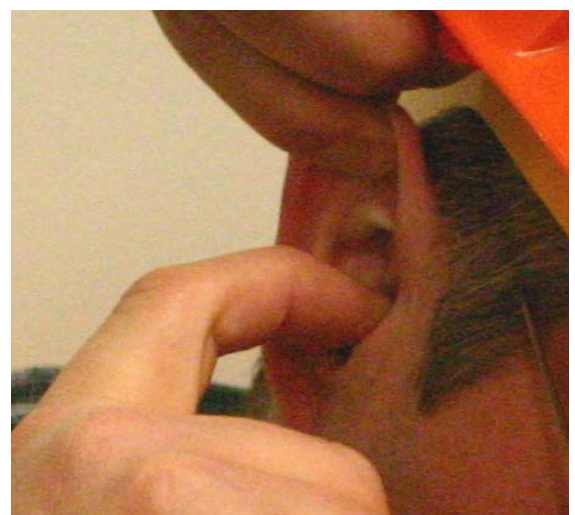
**1. Roll plug**



**2. Pull ear**



**3. Push plug**



**4. Hold plug**

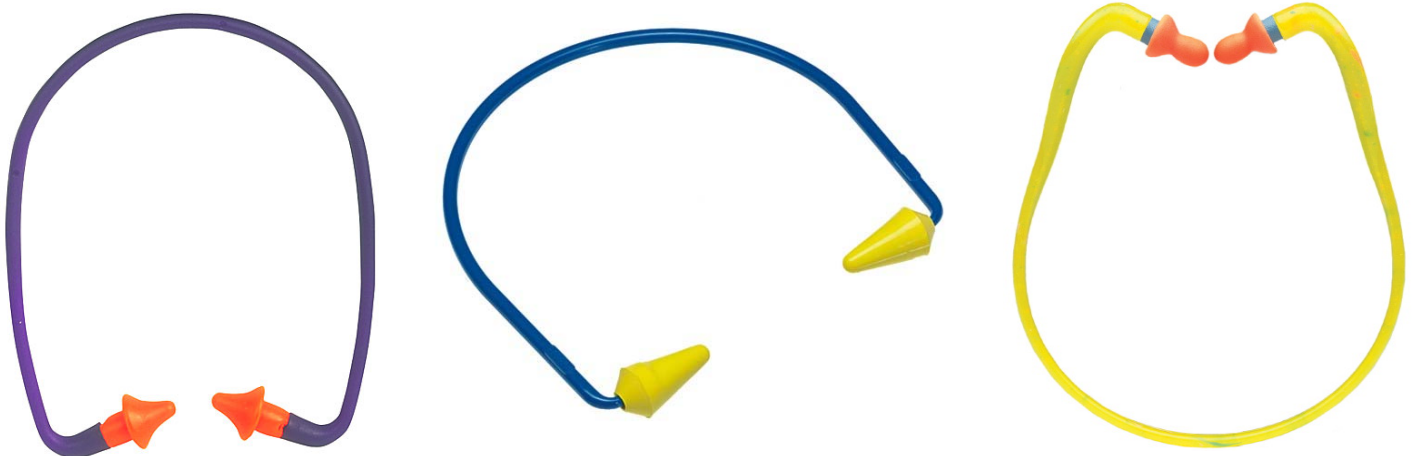
# Premolded earplugs

- 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?