

## Did You Know?



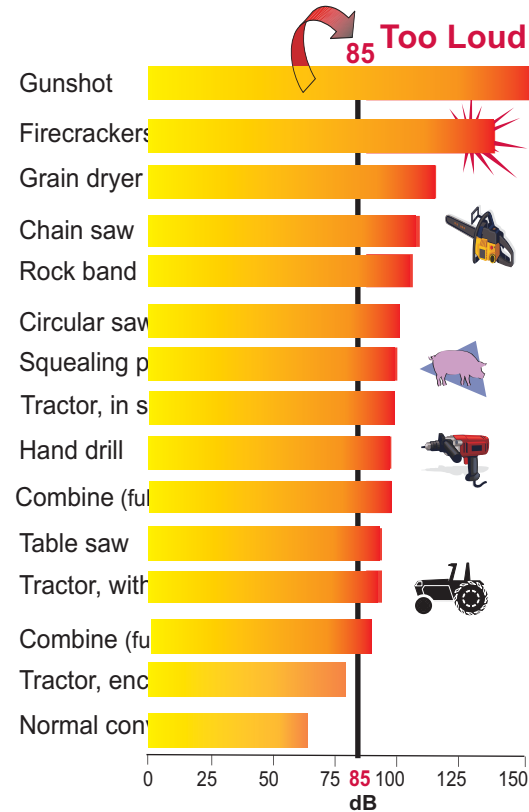
*It's not just your parent or your grandparent whose hearing may be slipping. A 25-year-old farmer can have the ears of a 50-year-old and not even know it!*

- **Nothing can restore lost hearing.** Once it's gone, it's gone!
- **BUT hearing loss caused by noise is preventable — and you can choose to prevent it.**
- Noise-induced hearing loss can result from working around farm noise - even hand drills - without hearing protection.
- If you're exposed to loud noise on the farm you may already be losing your hearing.
- Hearing protection can increase your ability to hear your equipment or others' voices because it cuts down on the background noise. Some earmuffs have amplification circuits that may help even hearing impaired workers communicate better in noisy backgrounds.
- You can buy protective earmuffs with built-in radios that allow you to listen safely to your favorite sports or music while working. They make nice gifts.
- People have found that protecting themselves from noise reduces their stress, anxiety and fatigue at the end of the day.
- The best way to avoid hearing loss is to reduce your exposure by using quieter equipment or staying away from noise.

## Sound Advice: Protect Your Ears from Damaging Noise

Exposure to noise **above 85 decibels (dB)** can cause permanent hearing loss.

It can even result from a single nearby shotgun blast, dynamite blast or other very loud noise.



A "decibel" is the unit used to measure the loudness of sound. Decibel levels for each item shown in the graph may vary.

*If you need to raise your voice to be heard an arm's length away, the noise is probably loud enough to damage your hearing.*

## How Long Is Too Long?

The red bar below shows how long it takes for a particular sound level to become dangerous to the human ear. For example, a chain saw has a sound intensity of about 109 dB. Without proper hearing protection, running a chain saw for only 2 minutes can cause hearing loss!

### It only takes...

112 dB	<1 min	
109 dB	<2 min	
106 dB	<4 min	
103 dB	7.5 min	
100 dB	15 min	
97 dB	30 min	
94 dB	1 hour	
91 dB	2 hours	
88 dB	4 hours	
85 dB	8 hours	

If you know someone with hearing loss, you know that conversation can be frustrating for both of you.

A good hearing aid can help, because it amplifies the sound. However it does not make sound clearer the way glasses make your vision sharp.

*Hearing aids do not correct hearing the way glasses correct vision.*

## What's That Ringing?

Have you ever driven an open cab tractor for several hours or gone to a loud concert, then heard a ringing in your ears for the next hour or two? How would you feel if that ringing **never** went away?

That's what happens to many people exposed to loud noise.

That ringing in the ears is called **tinnitus**, and while many people hear ringing, some hear hissing, roaring, whistling, chirping or clicking sounds. Tinnitus may show up before you even notice much hearing loss.



*"My little girl doesn't understand why I can't hear what she is whispering in my ear. She says... 'Mommy hears me when I whisper'."*

*"I thought if I lost my hearing, it would be quiet. But that constant ringing keeps me awake at night and I can't hear my friends very well on my cell phone."*



## Hearing Protection Resources

Centers for Disease Control and Prevention, National Institute for Occupational Safety and Health, Noise and Hearing Loss Prevention Resources include this brochure at: [www.cdc.gov/niosh/topics/noise](http://www.cdc.gov/niosh/topics/noise)

National Hearing Conservation Association: [www.hearingconservation.org](http://www.hearingconservation.org)

National Agricultural Safety Database Hearing Conservation: [www.cdc.gov/nasd/menu/topic/hearing.html](http://www.cdc.gov/nasd/menu/topic/hearing.html)

National Institutes of Health WISE EARS! Campaign Resources: [www.nidcd.nih.gov/health/wise/index.asp](http://www.nidcd.nih.gov/health/wise/index.asp)

Dangerous Decibels: [www.dangerousdecibels.org](http://www.dangerousdecibels.org)

University of Kentucky Agricultural Disability Awareness and Risk Education (AgDARE) NIHL Resources: [www.mc.uky.edu/scahip/projects/agdare-2.htm](http://www.mc.uky.edu/scahip/projects/agdare-2.htm)

American Tinnitus Association: [www.ata.org](http://www.ata.org)

Hearing Education and Awareness for Rockers (a non-profit group that educates young people about the dangers of exposure to loud music): [www.hearnet.com](http://www.hearnet.com)

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## How Can I Protect My Hearing?

*You don't have to have the hearing of a 50 year old by the time you're 25. It's up to you to protect your hearing!*

- **Identify noisy tasks** around your farm and shop that may be harmful to your hearing.
- **Wear hearing protection** at all times whenever you are exposed to loud noise.
- **Make hearing protection convenient.** Stash earplugs in your pockets every morning when you grab your cell phone and keys. Hang canal caps or muffs on your tractor steering wheel, combine and lawn mower.
- **Reduce equipment noise** by replacing worn, loose or unbalanced machine parts. Keep equipment well lubricated and maintained. If you have been meaning to replace that loud tractor muffler, do it now.
- **Limit your exposure** to loud noise. Stay away from noisy equipment if you don't need to be near it. Keep cab doors and windows closed.
- **Have your hearing tested** by a health care provider if you or someone else suspects a problem. Your family or friends may be the first to notice that your hearing is slipping.
- **Keep children away** from noisy areas and equipment.



Formable Earplugs



Premolded Earplugs



Canal Caps



Earmuffs



*The best protectors are the ones you will wear all the time you are around loud noise.*

There are hundreds of different styles of hearing protectors to choose from today. Everyone can find one that is convenient, easy to use, comfortable and fits his or her budget. "Hunter's" or "shooter's" muffs may work well for you. Hearing protectors are available on the internet and in local home improvement and farm stores.

Only trust your ears to products designed as hearing protectors. Cotton balls and other makeshift protectors can let noise pass right through.

*"Getting used to wearing my earplugs was like getting used to my favorite boots—even after getting a good fit, it still took a little time."*

# They're your ears Protect them



## Hearing Loss Caused by Farm Noise is Preventable



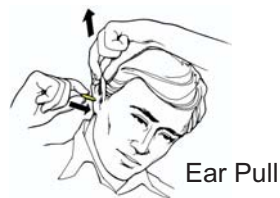
# Fitting Formable Plugs

**Size Matters** To fit properly, a formable plug should be inserted so that most of the plug fits into the ear canal. While many formable plugs are “one size fits most,” different sizes are available. If you can’t get at least half of the plug into the ear canal, or if the plug can’t expand enough to stay firmly seated, you need a different size.

**1 ROLL** the formable plug between your thumb and forefinger(s) to compress it into a small, smooth, round cylinder.



**2 REACH** over top of your head and pull up or back on the top of your ear. This straightens out your ear canal so the plugs can go in far enough.



Ear Pull

**3 INSERT** tightly rolled plug into straightened ear canal.

**4 HOLD** the ear plug in place for a few seconds after inserting to give it time to expand and seat itself in the ear canal.

**Remember**, the plug must be rolled down tightly before you try to insert it into your ear canal. You shouldn’t try to push a formable plug into your ear if you have not rolled it tight enough.



Correct



Incorrect

This plug needed to be rolled down more tightly.



Good fit



Poor fit

When you remove the plug, check to make sure there is a slight bend. (See the drawings above.) The bend means the earplug was inserted deeply enough to reach the bend in the ear canal. There should be no creases in the earplug.

Although considered disposable, formable plugs can be washed and used repeatedly.

**Credits:** The graphics used to illustrate fitting ear plugs were provided, courtesy of Elliott Berger, Senior Scientist, Auditory Research E-A-R/Aearo Company.

# Fitting Premolded Plugs



Correct

This plug completely seals the ear canal opening.



Incorrect

This plug is too large or has not been fully inserted, leaving gaps where noise can leak through.

Premolded plugs may come in different sizes or as “one size fits most.” Try out different sizes to find the ear plug that fits you best.

**1 REACH** over top of your head and pull up or back on the top of your ear. This straightens out your ear canal so the plugs can go in far enough.



Ear Pull

**2 INSERT** premolded plug into straightened ear canal.

With a **premolded** plug, you can perform the “tug test.” To do this, gently pull in and out on the stem of the earplug. As you do so, you should feel pressure changes in your ear canal to confirm you have a good fit. Do not pull hard enough to break the seal.

Premolded plugs are **reusable**. Most can be easily washed using mild soap. Make sure they are completely dry before storing them in their case or using them in your ear. Using wet plugs can irritate ear canals.

# Fitting Canal Caps

Canal caps are formable or premolded earplugs attached to a headband. Depending on the design, headbands may be worn over the head, behind the neck or under the chin. The headband allows canal caps to be hung around the neck when not being used. This makes them convenient to use when noise is not constant and you are taking your earplugs in and out frequently. Fitting and using canal caps is otherwise similar to fitting and using formable and premolded plugs.



## Tips on Using Hearing Protection

- ✔ When an earplug is properly inserted your voice will sound deeper or louder.
- ✔ To check your fit, cup your hands over your ears and make a good seal. Count out loud while slowly cupping and uncupping your ears. If you have a good fit, your voice should sound about the same as you cup and uncup your ears. Try this with and without plugs. Hear the difference?
- ✔ Use clean hands when inserting ear plugs, especially when rolling down formable plugs. Dirt can irritate your ears. When clean hands are not possible, ear muffs or premolded plugs with stems can be a better option.
- ✔ When removing an earplug, slowly twist the plug to break the seal. If you pull the earplug out quickly without first gently breaking the airtight seal, you could harm your ear.

“I expected to lose my hearing....  
but I thought it would be quiet.”

If you are around noise at work, at home or doing the things that you enjoy, you need to protect your ears. If you don't, you can expect to develop permanent hearing loss. You may also develop a permanent **ringing, buzzing** or **roaring** in your ears known as **Tinnitus**.

**They're your ears  
PROTECT THEM**

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## Buying Hearing Protection

Hearing protection is available from many sources including on the internet and in home improvement and farm stores.

Remember, **size matters!** Not every earplug fits every ear. You may even need a different size for each ear. If you can't get at least half of the plug into the ear canal, or if it can't expand enough to stay firmly seated, you need a different size.

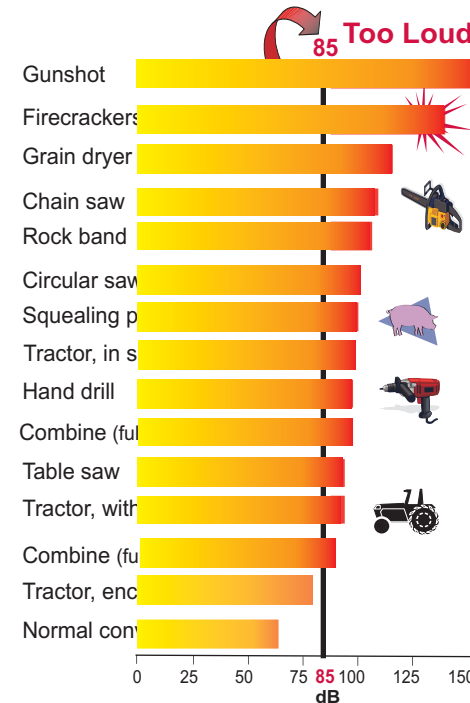
Earmuffs may work well for you. These are often worn during hunting and shooting. Some have a built-in radio as well as electronic circuits to limit the noise. They allow you to listen to your favorite sports or music. They are usually easy to fit and convenient to put on and take off. They can also make great gifts. However, if you wear glasses, earrings or have facial hair, ear plugs may be a better choice to ensure proper fit and sound reduction.



Replace your ear plugs or the seals of your ear muffs when they look worn or feel different.

## Common Noise Levels

Exposure to noise above 85 dB can cause hearing loss and tinnitus.



A "decibel" is the unit used to measure the loudness of sound. Decibel levels for each item shown in the graph may vary.

*If you need to raise your voice to be heard  
an arm's length away, the noise is probably  
loud enough to damage your hearing.*

## Have you Heard?

### Hearing Loss Caused by Farm Noise is Preventable



### Young Farmers' Guide for Selecting and Using Hearing Protection

