

## Shooters ear muffs (\$20-\$500)

These are ear muffs with noise limiting electronics that are designed to cut loud impulses. They will still allow you to hear conversation while cutting out the noise of shooting.

## Custom made ear plugs (\$150-\$400)

Made from high-grade silicon, they are moulded to fit your ear exactly and last for many years.

## Ear Muffs (approx \$30)

Are easy to use and provide good protection but may be bulky, heavy and hot.

## Shooters ear plugs also known as 'Combat Arms ear plug' (approx \$5)

These fit like a standard ear plug and can be reused almost any number of times if looked after. Will cut out loud noises like shooting, while still allowing you to hear conversational level sounds. Currently limited availability but coming into the market - ask your supplier.

## Ear plugs (Approx \$0.50)

These are cheap and highly portable (easily fit in a pocket), and can be effective when used correctly. However, they are usually only made for a one time use.

Wearing ear plugs and ear muffs together is also useful as it provides greater protection than either device alone (up to 35-40dB protection). This also provides additional safety in case of an inadequate seal of the plugs or muffs.

Note: ANY hearing protector is likely to be better than NO protection at all. Keeping some pre-packaged plugs with your shooting equipment or in the vehicle may be a helpful back-up for those times when you forget or don't have your usual protectors with you.

## Further Information

For more prevention information - your local firearms club, hearing protection outlets, Community Health Centre or Farmsafe Australia

<http://www.farmsafe.org.au/>

can assist.

Hearing assessments - talk to your GP or contact your local Community Health Centre, Audiologist or Audiometrist (hearing aid services)

An initiative of the Australian Centre for Agricultural Health and Safety, funded by the Department of Health and Ageing.



**Australian Government**  
**Department of Health and Ageing**

**Every time you shoot,  
you must wear  
suitable hearing  
protectors.**

# SHOOTING - AIM TO KEEP YOUR HEARING



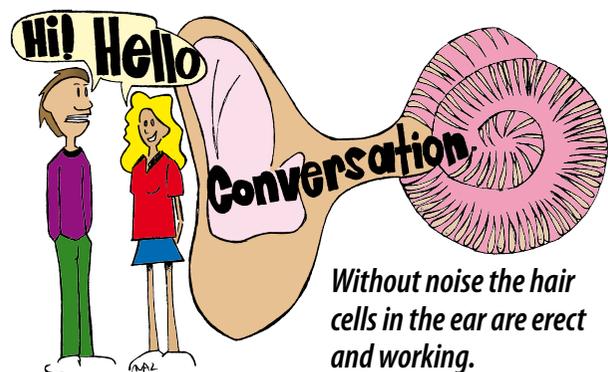
Shooting firearms will cause **permanent hearing damage that cannot be reversed.**

Whether you have been shooting for decades or are only just starting, there are some simple steps that can help you to prevent hearing loss and keep the hearing you have.

# Every time you shoot, you must wear suitable hearing protectors.

## How do I hear?

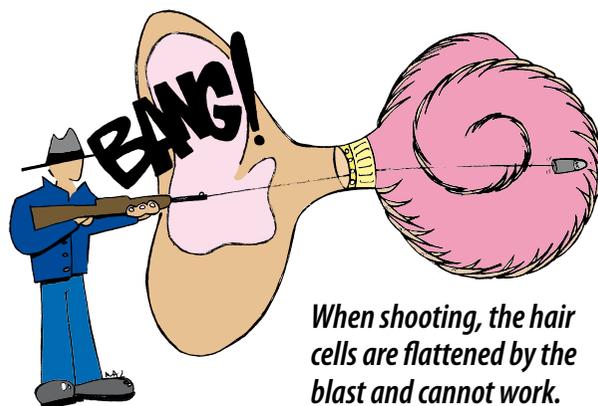
The inner ear is made up of thousands of hair like structures (cilia) that detect sound/noise. When sound or noise reach these hair cells they move and this results in an electrical message being sent to the brain. The brain then converts these electrical signals into meaningful sound, speech and music.



## How does noise damage my hearing?

Noise can cause damage to the cilia by bending or breaking them. Damage from noise builds up over time and the more often you are exposed, the more the hair cells are damaged. With shooting, the high level and short sharp nature of noise when firing, hits these hair cells hard and damages them permanently.

Using firearms without hearing protectors is like creating a tsunami in your ear, with the noise blasting the hair cells and knocking them down. Some hair cells may return to normal but many will be damaged beyond repair. This means that part of your hearing has been lost forever.



## So how loud is too loud for my ears?

Once noise levels get over 80dB (decibels), for instance like shouting in someone's ear, damage starts to occur. This damage is related to the loudness and exposure time - the louder and/or longer the sound the greater the damage. Firearms can cause large amounts of damage instantly.

## Other common sources of noise that add to the damage are:

	Noise level at the ear and range	Recommended limit of time exposure without hearing protection
<b>Firearms</b>	<b>140+dB</b>	<b>No safe limit</b>
Chainsaws	106dB (107-104)	3 mins (2 - 5 mins)
Angle grinders	98dB (100-96)	20 mins (15 - 30 mins)
Hedge Trimmer	97dB (100-94)	30 mins (15 mins - 1hr)
Tractors without cabins	92dB (93-90)	1.5 hours (1 - 2 hrs)
Lawn mower	87dB (95-80)	5hrs (20 mins - 8hrs+)

**Each time you shoot without hearing protectors, you are doing more damage to your hearing.**

## What can I do?

With repeated exposure to loud noise, damage to hearing increases. This means that your hearing loss adds up over time - if you already have lost some hearing it becomes even more important to protect your remaining hearing. Here are a few simple messages to remember when shooting, no matter how old you are or how much damage you may have already done to your hearing.

- Always have hearing protectors available and use them; and
- If there are other people around (shooters AND spectators), make sure they are also wearing hearing protectors.

**It is never too late - always look after your hearing!**

## What sort of hearing protectors should I use?

Further hearing damage can be prevented if you wear appropriate hearing protectors. It is no coincidence that all major gun Clubs and Associations recommend the use of hearing and eye protection at all times when shooting.

There are a number of different options available, ranging in features and cost. It is important to choose protectors that suit YOU - so that you will feel comfortable wearing them. Many of these protectors may also be useful for other day-to-day work in noisy situations.