LISTEN UP. HEARING DAMAGE IS PERMANENT. PROTECT YOUR EARS.
HEARING PROTECTION

Noise-induced hearing loss is 100% preventable through the successful application of engineering controls and hearing conservation programs, including the wearing of suitable protection devices such as earplugs or earmuffs.

One in six Australians suffer from some type of hearing loss. By 2050, this figure is expected to increase to one in four Australians or about eight million people.¹

Hearing impairment is attributed to exposure to hazardous noise levels at work (industrial noise) and play (music ear-phones and traffic). This hearing loss is permanent and preventable.

Easy prevention measures, including hearing protection, will avert permanent and debilitating hearing loss. Hearing loss due to industrial noise is one of the most widespread, yet preventable workplace injuries. Continual exposure to noise from machinery, tools, traffic and general workplace activity can cause significant, irreversible hearing loss.

Hearing loss has a dramatic impact on quality of life and may contribute to other safety problems, such as lack of awareness and reduced concentration. Correctly designed and fitted ear protection will keep industrial noise below harmful levels. The choice of the appropriate protection device for each job is also vitally important. Research and development by ProChoice has resulted in hearing protection devices that offer the most effective protection available. The types of hearing protection available give you a choice.

**Ear Muffs**
Suppress unwanted noise by completely covering the outer ear. Our styles come with a variety of features from adjustable headband to hard hat attachments to suit individual needs.

**Disposable Ear Plugs**
Made from PU foam and are designed to be compressed and then inserted into the ear canal, where they expand and seal against noise. These are economical, designed for single use and are available in uncorded and corded options.

**Reusable Ear Plugs**
Pre-moulded from washable silicone to fit snugly. Corded and uncorded options are supplied in handy resealable plastic case and can be reused.

**Banded Earplugs**
A convenient, easily inserted option for those who are constantly in and out of noisy areas.

**Metal Detectable Ear Plugs**
Contain a metal tab in each plug and a metalized cord that can be detected if they accidentally fall into processing lines.

**What is a dB?**

*dB* stands for Decibel, the unit of sound level and noise exposure measurement.

**How do I know when hearing protection is required?**
Have a workplace noise assessment done. Exposure to noise levels between 85dB - 90dB and above can cause permanent hearing loss and therefore hearing protection is required.

**What is the “Safe Noise Threshold”?**
90dB (A) – at this level and above appropriate hearing protection MUST be worn.

**What is Tinnitus?**
Involuntary noises in the ear, such as ringing or hissing, often associated with hearing loss.

**How can I protect my hearing at work?**
The best method of preventing occupational deafness is to reduce noise at the source by engineering methods. However, in certain workplace conditions, there is very little or nothing one can do to reduce noise at the source. In these workplaces, workers must wear hearing protection to reduce the amount of noise reaching the ears.

**When does noise become harmful to your hearing?**
Exposure to sounds greater than 85dB may cause hearing loss. General estimates of some work-related noises are listed in the chart below.

### Noise Level Examples

<table>
<thead>
<tr>
<th>Noise Level Examples</th>
<th>Class</th>
<th>SL80dB</th>
<th>Allowable Noise Level Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ringing Telephone – 80dB</td>
<td>1</td>
<td>10 to 13</td>
<td>Less than 90db</td>
</tr>
<tr>
<td>Loud Radio – 80dB</td>
<td>1</td>
<td>10 to 13</td>
<td>Less than 90db</td>
</tr>
<tr>
<td>Busy Traffic – 80dB</td>
<td>1</td>
<td>10 to 13</td>
<td>Less than 90db</td>
</tr>
<tr>
<td>Band Saws – 85dB</td>
<td>2</td>
<td>14 to 17</td>
<td>Less than 90db</td>
</tr>
<tr>
<td>Power Lawn Mower – 90dB</td>
<td>2</td>
<td>14 to 17</td>
<td>90 – 95dB</td>
</tr>
<tr>
<td>Belt Sander – 93dB</td>
<td>2</td>
<td>14 to 17</td>
<td>90 – 95dB</td>
</tr>
<tr>
<td>Tractor – 96dB</td>
<td>3</td>
<td>18 to 21</td>
<td>95 – 100dB</td>
</tr>
<tr>
<td>Electric Drill – 98dB</td>
<td>3</td>
<td>18 to 21</td>
<td>95 – 100dB</td>
</tr>
<tr>
<td>Bulldozer – 105dB</td>
<td>4</td>
<td>22 to 25</td>
<td>100 – 105dB</td>
</tr>
<tr>
<td>Blasting – 110dB</td>
<td>5</td>
<td>26 to 36</td>
<td>110 – 115dB</td>
</tr>
<tr>
<td>Nail Gun – 110dB</td>
<td>5</td>
<td>26 to 36</td>
<td>110 – 115dB</td>
</tr>
<tr>
<td>Chainsaw – 120dB</td>
<td>5</td>
<td>26 to 36</td>
<td>115 – 120dB</td>
</tr>
<tr>
<td>Propeller Aircraft – 120dB</td>
<td>5</td>
<td>26 to 36</td>
<td>115 – 120dB</td>
</tr>
<tr>
<td>Gun Shot – 130dB</td>
<td>5</td>
<td>26 to 36</td>
<td>125 – 130dB</td>
</tr>
<tr>
<td>Rivetting Hammers – 130dB</td>
<td>5</td>
<td>26 to 36</td>
<td>125 – 130dB</td>
</tr>
<tr>
<td>Jet Engine Aircraft – 140dB</td>
<td>5</td>
<td>26 to 36</td>
<td>135 – 140dB</td>
</tr>
</tbody>
</table>

**Please note:** This table is a general guide only and is not an absolute basis for noise levels selection as some equipment may operate at different noise levels. Every workplace should be tested by OH&S.

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**How does hearing loss occur?**

Permanent loss of hearing is the result of nerve destruction or damage to the hair cells which transfer sound waves within the ear. Once these important parts of the hearing mechanism are damaged or destroyed, they can never be regenerated, resulting in slight to total, permanent hearing loss.
How do I choose my hearing protection?
The choice of hearing protection depends on a number of factors including level of noise, comfort, and the suitability of the hearing protection for both the worker and the environment. Most importantly, the hearing protection should provide the desired noise reduction.

It is best, where protection must be used, to provide a choice of a number of different types of hearing protection. Each hearing protection device is given a class rating from 1 to 5 to show the level of noise reduction achieved.

If the noise exposure is intermittent, ear muffs are more desirable, since it may be inconvenient to remove and reinsert earplugs.

How is hearing protection tested in Australia and what standards apply?
The SOUND LEVEL CONVERSION (SLC80) rating as applied to hearing protection devices (HPD) is a simple number and class rating derived from a test procedure outlined in the Australian/New Zealand Standard, AS/NZS 1270:2002.

It provides a simple number guide to the level of noise attenuation (reduction) that can be expected from a particular HPD.

Because humans are different, the level of protection achieved for each person could also be different and so a scientific formula is used to allow for differences.

The SLC value includes a correction to ensure that the stated degree of noise reduction is obtained on 80% of occasions. Hence the SLC<sub>80</sub> rating. The SLC<sub>80</sub> rating is the difference between the sound level of the environment in which the HPD is worn and the sound level reaching the wearer’s ears.

The testing procedure can be separated into two different areas:

1) Mechanical Testing:
Where the device is subjected to physical forces, stretching, heating and concussion - to simulate real wearing conditions over a period of time.

2) Audiometric Testing:
This is a subjective test. A minimum number of human test subjects are selected at random and given a hearing test to establish if they fall into the category of “normal hearing”, as outlined in the standard. The attenuation of the HPD is determined by measuring each subject’s hearing threshold with and without the HPD fitted. The difference between these two thresholds is the so-called real ear attenuation of the HPD to a variety of frequencies.

In simplistic terms, from this data the mean real ear attenuation and standard deviation (variation) at each frequency is calculated. The mean minus standard deviation, when subtracted from the band level gives the attenuation.

HPD are also given a class rating, as outlined below, once the SLC80 rating is known, and refers to the level of noise attenuation achieved by each device. The higher the rating, the greater the efficiency of the hearing protection device.

### Class SLC<sub>80</sub>dB

<table>
<thead>
<tr>
<th>Class</th>
<th>SLC&lt;sub&gt;80&lt;/sub&gt;dB</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>10 to 13</td>
</tr>
<tr>
<td>2</td>
<td>14 to 17</td>
</tr>
<tr>
<td>3</td>
<td>18 to 21</td>
</tr>
<tr>
<td>4</td>
<td>22 to 25</td>
</tr>
<tr>
<td>5</td>
<td>26 to 36</td>
</tr>
</tbody>
</table>

The SLC<sub>80</sub> is a rating only, by which in conjunction with the information contained in the Australian/New Zealand Standard AS/NZS 1269.3:2005 Occupational Noise Management - Hearing Protector, the problems of hearing loss due to noise exposure for a given environment are addressed.

A deeper understanding of the SLC<sub>80</sub> rating or how to apply these ratings to your workplace can be obtained from the OH&S authority in your State.

What should I know about the fit of my hearing protection?
Follow manufacturers’ instructions. With ear plugs, for example, the ear should be pulled outward and upward with the opposite hand to enlarge and straighten the ear canal, and insert the plug with clean hands. Ensure the hearing protector tightly seals within the ear canal or against the side of the head. Hair and clothing should not be in the way.

Can I “toughen up” my ears?
No. If you think you have grown used to a loud noise, it probably has damaged your ears, and there is no treatment – no medicine, no surgery, not even a hearing aid – that completely restores your hearing once it is damaged by noise.

What are the common problems of hearing protection?
Studies have shown that one-half of the workers wearing hearing protectors receive one-half or less of the noise reduction potential of their protectors because these devices are not worn continuously while in noise or because they do not fit properly.

A hearing protector that gives an average of 30 dB of noise reduction if worn continuously during an 8-hour work day becomes equivalent to only 9 dB of protection if taken off for one hour in the noise.

This is because decibels are measured on a logarithmic scale, and there is a 10-fold increase in noise energy for each 10 dB increase.

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ProPlug™ Disposable Corded Earplugs
- Class 5, SLC27dB
- Disposable, PU foam
- Hearing protection for noise levels to 110dB(A)
- Pairs packaged in individual poly bags
- Qty/Box - 100 corded pairs
- Qty/Carton - 10 boxes

ProPlug™ Disposable Uncorded Earplugs
- Class 5, SLC27dB
- Disposable, PU foam
- Hearing protection for noise levels to 110dB(A)
- Pairs packaged in individual poly bags
- Qty/Box - 200 uncorded pairs
- Qty/Carton - 10 boxes

ProPlug™ Bell Disposable Corded Earplugs
- Class 5, SLC27dB
- Disposable, PU foam
- Hearing protection for noise levels to 110dB(A)
- ProPlug Bell shape delivers maximum comfort
- Superior design makes it easier to insert and reduces tendency to back out of the ear
- Pairs packaged in individual poly bags
- Qty/Box - 100 corded pairs
- Qty/Carton - 10 boxes

ProPlug™ Bell Disposable Uncorded Earplugs
- Class 5, SLC27dB
- Hearing protection for noise levels to 110dB(A)
- ProPlug Bell shape delivers maximum comfort
- Superior design makes it easier to insert and reduces tendency to back out of the ear
- Pairs packaged in individual poly bags
- Qty/Box - 200 uncorded pairs
- Qty/Carton - 10 boxes

ProPlug™ Bell Metal Detectable Earplugs
- Class 5, SLC27dB
- Disposable, PU foam
- Hearing protection for noise levels to 110dB(A)
- Internal metal ball and blue colour are easily detected by visual and automated inspections
- Blue metallised polycord prevents earplugs from falling into sensitive production lines and is fully detectable should the plug become separated from the cord
- Superior design makes it easier to insert and reduces tendency to back out of the ear
- Pairs packaged in individual poly bags
- Qty/Box - 100 corded pairs
- Qty/Carton - 10 boxes

ProPlug™ Bell Refill Bag for Dispenser
- Class 5, SLC27dB
- Disposable, PU foam
- Hearing protection for noise levels to 110dB(A)
- Uncorded ProPlug earplugs
- Qty/Bag - 500 uncorded pairs
- Qty/Carton - 10 bags

Dispenser Station 500
- Class 5, SLC27dB
- Workplace dispenser holds 500 pairs of ProPlug or ProPlug Bell Disposable Uncorded Earplugs
- Dispenses one pair at a time
- Sold Individually
- Qty/Carton – 10 boxes

ProPlug™ Refill Bag for Dispenser
- Class 5, SLC27dB
- Disposable, PU foam
- Hearing protection for noise levels to 110dB(A)
- Uncorded ProPlug earplugs
- Sold Individually
- Qty/Bag - 500 uncorded pairs
- Qty/Carton - 10 bags

ProPlug™ Bell Refill Bag for Dispenser
- Class 5, SLC27dB
- Disposable, PU foam
- Hearing protection for noise levels to 110dB(A)
- Uncorded ProPlug Bell earplugs
- Sold Individually
- Qty/Bag 500 uncorded pairs
- Qty/Carton - 10 bags
Earpads

**ProSil® Reusable Corded Earplugs**
- Class 3, SLC80 18dB
- Reusable silicone earplugs
- Hearing protection for noise levels to 100 dB(A)
- Comes in re-sealable plastic case
- Sold individually
- Qty/Box – 50 corded pairs
- Qty/Carton – 10 boxes

**ProSil® Reusable Uncorded Earplugs**
- Class 3, SLC80 18dB
- Reusable silicone earplugs
- Hearing protection for noise levels to 100 dB(A)
- Comes in re-sealable plastic case
- Sold individually
- Qty/Box – 50 uncorded pairs
- Qty/Carton – 10 boxes

**ProBand™ Fixed Headband Earplugs**
- Class 4, SLC80 24dB
- Disposable, PU foam pads
- Hearing protection for noise levels up to 109dB
- Provides wearer the highest level of protection for a headband earplug
- Disposable PU foam pads are ergonomically designed to fit the ear for maximum protection
- Pairs individually packaged
- Qty/Box – 10 packs
- Qty/Carton – 10 boxes

**ProBand™ Headband Earplugs**
- Class 2, SLC80 14dB
- Comfortable, convenient and lightweight headband
- Hearing protection for noise levels to 95dB(A)
- Foam ear pads are disposable and not designed for re-use
- Sold individually
- Qty/Pack – 1 complete set with bonus replacement earplug pads
- Qty/Box – 10 packs
- Qty/Carton – 10 boxes

**ProBand™ Fixed Replacement Earplug Pads**
- Class 4, SLC80 24dB
- Disposable, PU foam pads
- Hearing protection for noise levels up to 109dB
- Provides wearer the highest level of protection for a headband earplug
- Disposable PU foam pads are ergonomically designed to fit the ear for maximum protection
- Pairs individually packaged
- Qty/Box – 50 pairs
- Qty/Carton – 10 boxes

**ProBand™ Replacement Earplug Pads**
- Class 2, SLC80 14dB
- Replacement earplug pads to suit ProBand Headband Earplugs (HBEPA)
- Hearing protection for noise levels to 95 dB(A) when fitted as directed
- Foam ear pads are disposable and not designed for re-use
- Sold individually
- Qty/Box – 50 pairs
- Qty/Carton – 10 boxes

**ProBand™ Fixed Replacement Earplug Pads**
- Class 4, SLC80 24dB
- Disposable, PU foam pads
- Hearing protection for noise levels up to 109dB
- Replacement pads to suit the ProBand Fixed Headband earplugs (HBEPA)
- Provides wearer the highest level of protection for a headband earplug
- Disposable PU foam pads are ergonomically designed to fit the ear for maximum protection
- Pairs individually packaged
- Sold individually
- Qty/Box – 50 pairs
- Qty/Carton – 10 boxes


**EARPLUG FITTING GUIDE**

**SINGLE USE**

Disposable Foam

- EP0U: ProPlug Uncorded
- EP0C: ProPlug Corded
- EPYU: ProPlug Bell Uncorded
- EPYC: ProPlug Bell Corded
- EPBDMC: Metal Detectable Corded

1. Hold the earplug between thumb and forefinger. Roll the full length of the earplug into a narrow, wrinkle free cylinder.
2. Using the opposite hand, reach across your head and pull ear up and back to maximize ear opening. Gently work compressed plug well into ear canal, with end level with external ridges of ear.
3. Hold in for 50-60 seconds until the foam expands to fully seal the ear to maximize exclusion of noise. Repeat steps 1 & 2 for other ear.

**MULTI-USE**

Reusable Silicone

- EP0U: ProSil Uncorded
- EP0C: ProSil Corded

1. Using the opposite hand, reach across your head and pull ear up and back to maximize ear opening.
2. Insert gently until all ripples are inside the ear canal.
3. The tip of the earplug should be visible when viewed from in front. Repeat steps 1 & 2 for other ear.

**MULTI-USE**

Headband with replaceable Pads

- HBEP: ProBand Headband
- HBEP: ProBand Fixed Headband

1. With headband beneath chin, place plugs into each ear canal.
2. For maximum efficiency, use opposite hand to pull ear back and up to open ear canal for insertion.
3. Push each pad into the ear until you notice a significant lowering of noise level.

**CHECKING CORRECT FIT**

When properly inserted, the end of the earplugs should be located at opening of your ear canal. Test effectiveness in noisy location by cupping both hands over ears and release. You should NOT notice significant difference in noise level.

**Maintenance**

Before handling any earplugs, ensure hands are clean. Always check your earplugs and discard if damaged, worn or dirty. Silicone plugs can be washed if necessary. Single-use ear plugs can cause health issues if used when dirty. If kept clean and undamaged, silicone (reusable) ear plugs should last for up to three weeks. Clean with mild soap/water and store in a case away from extreme heat and direct sunlight when not in use. On banded earplugs, clean and replace pads regularly as required.

**Proper Fit**

Follow all earplug fitting instructions for maximum efficiency and durability. If either or both earplugs don’t seem to be fitted properly, remove and re-insert following the correct steps as indicated above.

**Correct Removal**

Gently twist earplug while slowly pulling in an outward motion for removal.

**Choose Correct Protection**

Consider your need to communicate AND the correct protection level when choosing your hearing protection, especially in minimal noise level environments. Don’t over protect if you need to communicate to work safely.
EARMUFFS AND ACCESSORIES

Viper® Earmuffs
- Class 5, SLC80 26dB
- General purpose use
- Hearing protection for noise levels to 110dB(A)
- Solid, lightweight ear cup construction
- High quality ear cushions
- Inner foam and headband cushions provide comfort during extended wear
- Low clamping force applies minimum pressure while maintaining a tight, snug seal
- Three position headband (over the head, behind the head and under the chin) allows the earmuffs to be worn comfortably with other safety gear such as hard hats, respirators, safety glasses and visors
- Sold and packaged individually
- Qty/Carton - 25

Cobra® Earmuffs
- Class 5, SLC80 28dB
- General purpose use
- Hearing protection for noise levels to 110dB(A)
- Convenient fold-away construction
- High quality ear cushions
- Inner foam and headband cushions provide comfort during extended wear
- Low clamping force applies minimum pressure while maintaining a tight, snug seal
- Sold and packaged individually
- Qty/Carton - 25

Python® Earmuffs
- Class 5, SLC80 31dB
- High performance and strong durability for maximum protection
- Hearing protection for noise levels to 116dB(A)
- Contemporary design withstands abuse without compromising comfort
- Solid, lightweight ear cup construction
- High quality ear cushions
- Padded foam headband minimises pressure on the head
- Steel wire provides a robust construction to withstand demanding use
- Increased wearer comfort due to low clamping force
- Sold and packaged individually
- Qty/Carton - 24

Python® Earmuff Hygiene Kit
- Replacement hygiene kit for ProChoice Python Earmuffs (EMPYT)
- Hygiene Kits assist in extending the performance and lifetime of the earmuff
- Contains one replacement pair
- Sold and packaged individually
- Qty/Carton – 40 pairs

Viper® Earmuff Hygiene Kit
- Replacement hygiene kit for ProChoice Viper Earmuffs (EMVIP) and Viper Hard Hat Earmuffs (HHEM)
- Contains one replacement pair
- Sold and packaged individually
- Qty/Carton – 40 Pairs

Cobra® Earmuff Hygiene Kit
- Replacement hygiene kit for ProChoice COBRA Earmuffs (EMCOB)
- Contains one replacement pair
- Sold and packaged individually
- Qty/Carton – 50 Pairs

Viper® Hard Hat Earmuffs
- Class 5, SLC80 26dB
- General purpose use
- To suit all ProChoice hard hats
- Hearing protection for noise levels to 110dB(A)
- Solid, lightweight ear cup construction
- Inner foam and headband cushions provide comfort during extended wear
- Low clamping force applies minimum pressure while maintaining a tight, snug seal
- Sold and packaged individually
- Qty/Carton - 25

Wear Options
- 3 Recommended positions for wear of the Viper Earmuffs that allows them to be worn comfortably with other safety gear such as hard hats, respirators, safety glasses and visors.