

Concerned about your Hearing?

Information Sheet

December 2010

What Is The Problem With Noise?

You are probably aware the loud noise can cause deafness. Various media articles tell us about teenagers losing their hearing at ear-splitting concerts, soldiers developing hearing loss from artillery fire and people going deaf after an explosion. It also happens on the job when workers are exposed to less intense but sustained noise over time.



What Does Noise Do To Our Ears?

Our ears are amazing! We can hear a wide range of pitches from the squeak of a mouse to the roar of a waterfall. We can hear over a loudness range from a pin dropping to the same roaring waterfall or a jet engine. But our ears do have limits. Excessive noise can cause damage to the nerves in the inner ear.

Our ears can recover from a short exposure to loud noise, but being around too much noise over an extended period of time will eventually cause nerve damage and hearing loss. The louder the noise and the longer the exposure the greater chance permanent damage will occur. A really loud noise, such as a gunshot, can cause immediate hearing loss. Continued exposure to less intense noise over a number of years often leads to gradual, but permanent hearing loss.

What are the Warning Signs of Hazardous Noise?

- You must raise your voice to be heard
- You can't hear someone two metres away from you
- Speech around you sounds muffled or dull after leaving a noise area
- You have pain or ringing in your ears (tinnitus) after exposure to noise



Can't my Ears Adjust and get used to Regular Noise?

If you think you have “gotten used to” the noise you are routinely exposed to, then most likely you have already suffered damage and have acquired a permanent hearing loss. Don't be fooled by thinking your ears are “tough” or that you have the ability to “tune it out”! Noise induced hearing loss is usually gradual and painless, but, unfortunately, permanent. Once destroyed, the hearing nerve and its sensory nerve cell do not regenerate.

How is Hearing Loss Measured?

You may have been to a doctor or clinic where your hearing was tested by listening to different tones through headphones. These hearing tests are also called “audiometric testing”. Audiometric testing checks how well you hear various sound pitches or frequencies and if there is a drop in your ability to hear these pitches over time. Most people naturally show a slight decrease in the ability to hear high-pitched sound as they get older. But people exposed to too much noise will typically show a great decrease in this ability. People with hearing loss caused by noise often say they can hear someone talking but can't understand them. This is because human speech contains high-pitched sound in letters like *s* and *t*.

What Should My Employer Do To Protect Me From Noise At Work?

The law says your employer has to:

- Find out what levels of noise you are exposed to and assess the risks to your hearing

Depending on the levels of noise exposure and as far as reasonably practicable, your employer must:

- Provide the quietest machinery that will do the job
- Control the noise exposure by ‘engineering’ it out, e.g. by putting in screens or barriers, or fitting a silencer

- Change the way you work or the layout of the workplace
- Where other protection measures are not adequate give you hearing protection (a selection so you can choose the type that suits you)
- Identify clearly by signage those areas where hearing protection must be worn
- Send you for regular hearing checks
- Provide you with training and information and
- Consult you and your representatives

Workers should receive information and training to help them understand and deal with noise-related risks. This should cover:

- The risks faced, as well as the measures taken to eliminate or reduce them
- The results of the risk assessment and any noise measurements, including an explanation of their significance
- Noise-control and hearing protection measures, including hearing protection
- Why and how to detect and report signs of hearing damage
- When workers are entitled to a hearing check and the purpose of the hearing check
- Where hearing protection is required how to use it correctly, how to maintain it and how and when to replace it

What do I have to do?

The key word in dealing with noise is prevention! We want to eliminate unwanted noise when we can. When noise cannot be eliminated, we want to keep it as low as possible. **Here are some things you should do:**

Co-operate.

Help your employer to do what is needed to protect your hearing. Make sure you use properly any noise control devices (e.g. noise enclosures) and follow any working methods that are put in place. Also attend any training or hearing checks that are provided. This means you need to take some responsibility for your hearing.

Wear any hearing protection you are given.

Wear hearing protection properly (you should be trained how to do this) and make sure you wear it all the time when are doing noisy work and when you are in hearing protection areas. Taking it off even for a short while means that your hearing could still be damaged. Remember that there is no cure for deafness.

Look after your hearing protection.

Your employer should tell you how to look after it and where you can get replacements in-house. Make sure you understand what to do.

Report any problems.

Report problems with your hearing protection or noise control devices straight away. Let your employer or safety representative know. If you have any ear trouble, let your employer know.

Protect yourself from noise.

Limit periods of exposure to noise. Don't sit next to the speakers at concerts, discos or auditoriums. If you are at a concert, walk out for awhile and give your ears a break!

When using stereo headsets or listening to amplified music in a confined place like a car, turn down the volume. Remember if a friend can hear the music from your headset when standing three metres away, the volume is definitely too high. Don't be afraid to ask others to turn down the volume.

Look for a noise rating when buying recreational equipment, children's toys, household appliances and power tools. Choose quieter models, especially for equipment that you use close to your ears like a hair dryer. If there is no noise rating, contact the manufacturer and ask for one.

What do I Have to Look out for when Selecting Hearing Protection?

Hearing protection such as earmuffs and earplugs is your last line of defence against hearing damage, so check the following:

Earmuffs:

Make sure they totally cover your ears, fit tightly and there are no gaps around the seals. Don't let hair, jewellery, glasses, hats etc. interfere with the seal. Try and keep the seals and the insides clean. Don't stretch the headband too much - make sure it keeps its tension.

Keys to successful hearing protection with earmuffs;

Wear:

- Read and follow all earmuff fitting instructions
- Remove all hair underneath ear cushions



Selection:

- In selecting the best earmuff for you situation, ensure that they adequately reduce the noise exposure, consideration must be give to your need to communicate with co-workers or hear warning signals on the job, avoid overprotection in minimal noise environments

Maintenance:

- Regularly inspect ear cups and ear cushions for cracks and leaks - discard if ear cups are visibly damaged or compromised
- Ensure the ear cups and ear cushions are kept clean
- Ensure the ear cushions and foam inserts are kept in a good condition and replaced as required and
- Refer to manufacturer's instructions

Earmuffs should be fitted as follows:

1. Place ear cups over each ear
2. Seal the cushions firmly against the head by adjusting the headband
3. Do not allow hair to obstruct the ear or the ear muffs secure fit in any way
4. The ear cups should never fit crooked or askew over the ear

Earplugs:

Earplugs can be difficult to fit properly - practice fitting them and get help if you are having trouble. Often they can look like they are fitted properly, but they may not be giving you much protection. Clean your hands before you fit earplugs and don't share them. Some types you use only once, others can be re-used and even washed - make sure you know which type you have.

Keys to successful hearing protection with earplugs;

Wear:

- Read and follow all earplug fitting instructions

Selection:

- In selecting the best earplug for you situation, ensure that they adequately reduce the noise exposure, consideration must be give to your need to communicate with co-workers or hear warning signals on the job, avoid overprotection in minimal noise environments

Maintenance:

- Inspect earplugs prior to wear for dirt, damage or hardness - discard immediately if compromised
- For proper hygiene, discard Single-Use earplugs after use
- Ensure Multiple-Use earplugs are kept clean
- Refer to manufacturer's instructions

No-Roll Foam earplugs should be fitted as follows:

1. Reach over your head with a free hand, pull your ear up and back, and insert the earplug well in side your ear canal
2. Stop pushing the earplug when your finger touches your ear

3. If properly fitted, the end of the earplug should not be visible to someone looking at you from the front

The Correct and Incorrect Fitting of Earplugs:



Correct



Incorrect

Who can help me?

Your employer has a duty to protect you and should be working on measures to reduce the risk. The law says that your employer has to find out what levels of noise you are exposed to and assess the risk to your hearing.

Safety representatives or other employee representatives can be very useful in communicating problems, inspecting documents and consulting employers over measures to reduce the noise risk.

Your company doctor or your GP can help. There may be an occupational health professional where your employer has a company occupational health scheme.

Where can I find out more?

The following are available from the HSA Publications Unit 1890 289389 or from website:

Control of Noise: A Guide to the Safety Health and Welfare at Work (General Applications) Regulations 2007. Chapter 1 of Part 5: Control of Noise at Work.

Guidelines on Hearing Checks and Audiometry Under the Safety, Health and Welfare at Work (General Application) Regulations 2007. Control of Noise at Work.

The Noise of Music: A Guide to Exposure to Noise in the Entertainment Industry.

Further Information:

The Health and Safety Authority's web site www.hsa.ie
Contact the Health and Safety Authority at wcu@hsa.ie or LoCall 1890 289 389