The aim of this talk is to raise your awareness about the negative impacts of noise in the workplace and the steps that can be taken to access, reduce and control noise.

**Speaker information only:** This slide is provided to ask the audience why they think they should wear hearing protection and what prevents them from wearing it or wearing it correctly.

Common answers:

1. Protect from noisy environments, prevent hearing loss etc.
2. Too much protection – can’t hear colleagues etc., Doesn’t look very good,
   Lack of technical features, Not convenient/Easy to use, Interferes with my other PPE, It’s only a quick job.
Hearing loss is a major problem in the UK...

- More than **11 million** UK citizens suffer from hearing loss, that’s **1 in 6**.
- From 11 million, more than **900,000** people are severely or profoundly deaf.
- **170,000** suffer deafness, tinnitus or other ear conditions.
- **20,000** new cases of Noise Induced Hearing Loss (NIHL) estimated annually in the UK.
- NIHL is permanent but **100% preventable**.

- Noise Induced Hearing Loss (NIHL) is one of the biggest occupational health problems facing us today.
- Exposure to regular and long lasting noise damages the sensitive hair cells in the ear (cochlea) which can result in permanent noise induced hearing loss or tinnitus. Once damaged these tiny hairs cannot be repaired or replaced.
- NIHL is a gradual process and when hearing damage occurs it is too late. Whilst NIHL is permanent and irreversible, it’s also 100% preventable.

How does noise affect you?

- Loud noise is an occasional part of everyday life.
- Permanent hearing damage occurs when the noise is too high, for too long, too often.
- Hearing loss reduces your ability to hear quiet sounds and the quality of the sound you hear.
- Very high level sound such as explosions, gun fire and some machinery may pose a risk of instantaneous damage.

- Conversation may start to sound muffled, especially high pitched letters like S, K, P and T. This can lead to people confusing similar sounding words.
- Interactions and recognising warning signals may also become more difficult.
This chart provides examples of common workplace noises, can you identify which level belongs to which noise?

- Forklift, Hammer on nail, Quiet office, Jackhammer, Handsaw, Dynamite blast, Bulldozer, Transformer

The risk from noise at work is indicated by the daily personal noise exposure level, this is the total noise dose in the working day. The safe exposure limit is 85 decibels which should not exceed 8 hours a day. If the daily noise dose exceeds this employees are at risk of permanent hearing damage and employers must take action to reduce noise levels.

The limit for a one off loud noise before hearing may be damaged is 140 dB(C), that’s the equivalent of a dynamite blast.

It is important to note that every 3 dB of noise doubles the risk.
1. Do you work in a noisy environment?

2. What examples of noise can you think of, that you have to deal with on a daily basis?

Speaker information only: This slide is provided to ask the audience if they think they work in a noisy environment and examples of noise.

1. If yes or no probe why?
2. Examples – machinery, environment e.g. weather, other workers, traffic etc

What does the Law say?

The main legislation related to noise is the Control of Noise at Work Regulations Act 2005.

- **As your employer it is our duty to** remove or reduce risks from noise at work
- **We must ensure that** the legal limits on noise exposure are not exceeded
- All equipment provided to control noise risks will be **maintained and we will ensure that it is used**
- **We will** provide all employees with information, instruction and training
- **Hearing protection** will be provided as a last resort
- Health surveillance (monitor workers’ hearing ability) **will be carried out**

The aim of the Regulations is to ensure that workers’ are protected from excessive noise at work, which could cause them to lose their hearing and/or to suffer from tinnitus (permanent ringing in the ears). As your employer we are obliged to eliminate or control noise in the workplace so far as is reasonably practicable. We must first seek to eliminate or engineer out the source of noise before providing hearing protection.
Assessing Noise

- A noise risk assessment will have been undertaken in any area where any employee is likely to be exposed at or above the lower action value.
- The risk assessment will have highlighted any control measures that needed to be implemented to protect you from the risk of noise.
- The risk assessment will be reviewed if circumstances change or if it is no longer valid.


- Typical situations would be 1) Noise is intrusive for most of the day, 2) You need to use a raised voice to have a conversation with someone two metres away, for at least part of the day, 3) Noisy power tools or machinery is used for more than ½ hour a day, 4) There are noises from impacts, such as hammering
- As part of the risk assessment you will be informed about any procedures that are put in place and where necessary you will be trained to ensure that you are competent to use and maintain any equipment provided.
- For example if the work changes and this affects workers’ noise exposure, or there are changes to the availability, applicability or cost of noise-control measures. A review will be undertaken no more than two years after implementation.

Reducing and Controlling Noise

How can we reduce noise at work?

**Speaker information only:** This slide is provided to ask the audience what steps can be taken to reduce or control noise at work.

Common answers:

Use less noisy equipment or processes, 2) Shield noisy processes or machinery, if possible i.e. behind a wall or sound absorbing material, 3) Design the layout of the workplace to create quiet areas, 4) Improve working techniques to reduce noise levels, 5) Limit the time people spend in noisy areas, 6) Ensure hearing protection, if required is effective and properly used
Reducing and Controlling Noise

- Use less noisy equipment or processes.
- Shield noisy processes or machinery, if possible i.e. behind a wall or sound absorbing material.
- Design the layout of the workplace to create quiet areas.
- Improve working techniques to reduce noise levels.
- Limit the time people spend in noisy areas.
- Ensure hearing protection, if required is effective and properly used.

There are many ways of reducing noise and noise exposure - often a combination of methods works best. First we need to think about how to remove the loud noise altogether. If that is not possible, then we will do all we can to control the noise at source, by considering redesigning the workplace and reorganising working patterns.

PPE Regulation – reclassification of hearing protection

- In April 2018 the new PPE Regulation (EU) 2016/425 came into force, now a legally binding act, this replaces the previous PPE Directive 89/686/EEC.
- PPE that comes under Category III is designed to protect people from risks that may cause very serious consequences such as death or irreversible damage to health.

In April 2018 the PPE Directive was replaced by the new PPE regulation which is a binding legislative act. It now applies to the whole supply chain from getting product approval, making sure products conform to the regulation and keeping technical files and records. The new regulation has also reclassified some types of protection. PPE is split into three categories – 1 simple 2 intermediate and 3 complex. PPE that comes under Category 3 is designed to protect people from risks that may cause very serious consequences such as death or irreversible damage to health. The new regulation now ensures that life-changing occupational illnesses receive the attention they deserve. The effects of hearing loss is now being recognised as being severely damaging to a person’s quality of life. This move means that hearing protection is now subject to the strictest conformity assessment procedure which requires EU type-examination plus ongoing surveillance. This should get rid of cheap hearing protection and should also lead to the design of improved products.

You can be assured that we will choose appropriate PPE which has been manufactured and CE marked in accordance with the new regulation and that it is purchased from suppliers that comply with the conditions of the new PPE regulation.
PPE Regulation – reclassification of hearing protection

- The new Regulation now ensures that life-changing occupational illnesses receive the attention they deserve. The effects of hearing loss is now being recognised as being severely damaging to a person’s quality of life.
- All types of hearing protection against harmful noise have been reclassified to Category III, which is designed to protect against very serious risk, where the hazard is not immediately obvious.

Hearing Protection

- Hearing protection is only provided as a last resort.
- Hearing protectors are provided if asked for and if noise exposure is between the lower and upper exposure action values.
- We provide training and information on how to use and care for the hearing protectors.
- Hearing protection zones have been identified, i.e. areas where the use of hearing protection is compulsory, and marked with signs if possible.
- You must report any problems with noise-control devices or your hearing protection straight away.

Hearing protection will only be issued to you where extra protection is needed above what has been achieved using noise control or as a short-term measure while other methods of controlling noise are being developed.

Hearing protection can protect against hearing loss but it must be 1) Properly selected to provide protection against the noise level you are exposed to, 2) Fit properly, 3) Be in a good condition, 4) Cleaned regularly, inspected for damage and stored where they cannot get dirty or damaged and 5) Replaced regularly.

If you start to have any problems with your hearing protection or it becomes damaged you must report it straight away as you may no longer be getting the level of protection required.
Let's look at the two most common forms of hearing protection.

It is of paramount importance that ear plugs are fitted correctly to achieve the level of protection stated on the product, if you are having trouble ask for help. This short film will show you how to fit ear plugs correctly.

**PAUSE for video**

Ear plugs should be inspected before fitting, checked for dirt and damage, if any of these apply they should be discarded and replaced.

It is vital that ear defenders are compatible with other PPE such as hard hats, masks and eye protection. Jewellery and long hair can also cause fitting problems and reduce protection. This short film will show you how to fit and care for ear defenders.

**PAUSE for video**

Ear defenders should be inspected before fitting, check for dirt and damage, if any of these apply they should be discarded and replaced. Also ensure that all hair and jewellery is removed from the cushions for maximum protection.
Health Surveillance

- Health surveillance will be provided for all employees who are likely to be frequently exposed above the upper exposure action values, or are at risk for any reason, e.g. they already suffer from hearing loss.
- This will be followed by a regular series of checks:
  - annually for the first two years of employment
  - then at three-yearly intervals


It can start before people are exposed to noise (i.e. for new starters or those changing jobs), to give a baseline or it can, be introduced at any time for employees already exposed to noise.

Although this may need to be more frequent if any problem with hearing is detected or where the risk of hearing damage is high.

This should also be under the control of an occupational health professional who can review the results and ensure that employees with poor hearing or rapid hearing loss are referred for further medical advice.

An employer will only receive information on any hearing damage an individual employee has if they have given their consent.

On the basis of both individual and grouped information, consideration should be taken on any actions that need to be taken. This should include reviewing risk assessments, any control measures in place and health surveillance procedures.
Summary

• This site has been audited and where possible controls have been put in place to either eliminate or reduce noise.
• If you need it, you have been issued with hearing protection to protect you from noise induced hearing loss.
• You will be / have been provided with training on how to use your hearing protection.
• Hearing protection MUST be worn in designated areas.
• Failure to use hearing protection or to use it incorrectly will expose you to the risk of noise induced hearing loss.

Key messages

• 20,000 new cases of NIHL estimated annually in the UK.
• NIHL is permanent and irreversible, but is 100% preventable.
• Employers must consider ways to eliminate noise before using PPE.
• Noise levels must be monitored in the workplace.
• If the daily noise dose exceeds 85 dB(A) over eight hours employers must act.
• Every 3 decibels doubles the risk.
• Health surveillance or hearing checks are vital to detect and respond to early signs of damage.
• Hearing protection has been reclassified to Category III which is designed to protect against very serious risk, where the hazard is not immediately obvious.
Questions

Speaker information only: Potential questions and answers

Q: Which are better – ear plugs or ear defenders?
A: This really depends on your workplace and how you will use your hearing protection. They perform much the same in terms of sound reduction but ear defenders will reduce higher frequencies to a much greater extent.

Q: What should I do if I start having problems with my hearing?
A: You must report any changes to your hearing to your manager. A hearing check up will be performed by a doctor, nurse or audiologist, if poor hearing or hearing loss is found then you will be referred for further medical advice. A risk assessment will also take place to identify any improvements that need to be made.