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# Noise

Toolbox Presentation



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# Noise is a BIG problem

An estimated **15,000** people last year suffered from Noise Induced Hearing Loss

**17,000** people in the UK suffer deafness, ringing in the ears or other ear conditions caused by excessive noise at work

The safe exposure limit is **85 decibels** and you should not exceed **8 hours a day**

There were **48** cases of hearing loss per **100,000** people employed in the last **12 months** which although better than the corresponding rate **ten years earlier** of **68** cases per **100,000** people employed, is still too high.

Although there is some improvement during the last 10 years there is still a long way to go.



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## But first a word on competence

- Construction is a dangerous industry
- Improving competence is key to reducing accidents
- It's people that often cause accidents
- Competence is skills, knowledge and behaviour
- Competence is thinking about:
  - Self-awareness: get to know yourself
  - Situational awareness: expect the unexpected
  - Risk awareness: think outside the box



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## Self-awareness get to know yourself

- Think about **YOURSELF** and your role
- Consider your frame of mind
- Late nights and hang-overs can affect judgement
- Domestic disputes and emotional upsets affect concentration
- All these can affect performance and safety



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## Situational awareness expect the unexpected

- Don't assume today will be the same as yesterday. Things change
- Take note of the broader context in which you work
- Stop and think about what's going on around you
- Things change so expect the unexpected risk



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## Risk awareness think outside the box

- Risk awareness is more than risk assessment
- It recognises the additional risks of:
  - Age
  - Inexperience
  - Poor eyesight
  - Fading light
  - Language
- Consider out-of-context risk due to new jobs and unfamiliar surroundings



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## What is noise?

Generally noise can be defined as any unwanted sound. Noise could occur unexpectedly, or be too loud or repetitive. At certain decibels, it can be hazardous to health, with low frequency noise as damaging as loud noise. Noise accounts for the most of the complaints that local councils and the Environment Agency receive about environmental pollution.

## How is noise measured?

Noise is measured in decibels (dB). An 'A-weighting' sometimes written as 'dB(A)', is used to measure average noise levels, and a 'C-weighting' or 'dB(C)', to measure peak, impact or explosive noises.



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## Assessing noise

In the UK Construction Industry exposure to noise is not supposed to go beyond 85 decibels and exceed 8 hours a day, with peak noise levels having a limit of 137 decibels.

Conducting Risk Assessments will not only ensure you are complying with the law, but will also provide a noise profile, so problem/loud activities or site areas can be identified. This will make reducing and controlling the noise easier. The problem in construction is that most of the equipment used can be louder than the safe limit, especially if it is old or poorly maintained.

### Noise level examples



Raindrops

**40dB**



Conversation

**60dB**



Chainsaw

**110dB**



Gun shot/  
fireworks

**140dB**



## What Does The Law Say?

The main piece of legislation related to noise is The Control of Noise at Work Regulations Act 2005 this replaced the Noise at Work Regulations Act 1989.

**Duties under the Regulations include:**

**1. Make sure the legal limits on noise exposure are not exceeded.**

**2. To ensure that the equipment you provide to control noise risks, is maintained properly.**

**3. Provide your employees with information, instruction and training.**

**4. Carry out health surveillance (monitor the hearing ability of the workforce).**

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## What Does The Law Say?

Workers are at higher risk if they regularly use or work near to power tools like concrete breakers, pokers and compactors, sanders, grinders, disc cutters, hammer drills, chipping hammers, cartridge-operated tools, scabblers and needle guns.

Anyone who operates or works close to heavy plant/machines is also at risk.



## Negative impacts of Noise

- Conversation becomes difficult or impossible
- Trouble using the telephone
- May find it difficult to catch certain sounds like 't', 'd' and 's' and so confuse similar words
- May suffer from tinnitus (constant ringing noise in ears)



## Reducing and Controlling Noise

Points to consider when trying to reduce/control the noise:

- Using quieter equipment or a different, quieter process
- Engineering/ technical controls to reduce, at source, the noise produced by a machine or process
- Using screens, barriers, enclosures and absorbent materials to reduce the noise on its path to the people exposed
- Designing and laying out the workplace to create quiet workstations

- Improved working techniques to reduce noise levels
- Limiting the time people spend in noisy areas
- Ensuring that controls such as methods or hearing protection are effective and properly used.

Speedy have a number of sales products, hire products and training programs that can help reduce and control construction noise levels.



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## Summary

- Workers who regularly use or work near power tools are at risk of noise pollution
- **15,000** people last year suffered from Noise Induced Hearing Loss
- Industry exposure to noise is not supposed to go beyond **85 decibels** and exceed **8 hours a day**
- Negative impacts are numerous e.g. Conversation becoming difficult/impossible, suffering from tinnitus and trouble using the telephone
- There is a full range of equipment available, so use it



## Quick quiz

1. How many people per 100,000 employed last year suffered from hearing problems?
2. What is the decibel level of a gun shot/ fireworks?
3. What is the acceptable decibel level you could be exposed to?
4. Name two negative impacts of Noise.
5. What is the peak noise level limit?

**Remember you are responsible for your safety and that of your mates**

