Working together for better workplace health

NOISE AT WORK
Noise at work

Noise at work can cause hearing loss which can be temporary or permanent. People often experience temporary deafness after leaving a noisy place, known as ‘temporary threshold shift’. Although hearing recovers within a few hours, this should not be ignored as it can be a sign that if they continue to be exposed to the noise their hearing could be permanently damaged.

What is Noise Induced Hearing Loss?

Noise induced hearing loss (NIHL) is irreversible damage to the ears caused by exposure to high levels of noise. NIHL can be caused by a one-time exposure to a high level of sound, as well as by repeated exposure to sounds at various high levels over an extended period of time.

Health surveillance

Health surveillance is a requirement under The Control of Noise at Work Regulations (2005) for those workers regularly exposed to noise over the upper exposure action value of 85 dBA (daily or weekly average exposure). There is also a legal upper exposure limit of 87 dBA; this takes into account the reduction in exposure that is achieved by providing hearing protection.

Other workers should have health surveillance provided where their exposure is either:

1. Between the lower exposure action value of 80 dBA and the upper action value of 85 dBA, and the individual may be particularly sensitive to noise; or

2. Only occasionally exposed above the upper exposure action value and the individual may be particularly sensitive to noise.

Sensitivity to noise may be indicated by audiometry results from previous jobs, medical history, history of exposure to noise above 85 dBA; or in a very few cases, a family history of becoming deaf early in life. Your occupational health service provider (OHSP) should be able to advise on this.

Suitable health surveillance means regular hearing tests (audiometry testing over a range of sound frequencies), the maintenance of suitable records, informing workers about the state of their hearing and also the proper fitting, cleaning and maintenance of any hearing protection used.

Workers are required to cooperate with a health surveillance programme for noise by attending such hearing test appointments. Your OHSP should be able to assist as to the level of health surveillance required.

Audiometry is the measurement of hearing thresholds for pure tones of normally audible frequencies. Its purpose is to identify workers in the early stages of hearing loss and allow intervention before the loss becomes worse.

The results of each audiometry test should be explained to the worker, including the condition of their hearing, the significance of hearing damage, and the importance of compliance with the employer’s noise control and hearing protection programme, and the need for any further referral.
Health and Safety Executive (HSE) categorisation

The HSE has devised a categorisation scheme for the interpretation of audiometry testing (HSE guidance L108). Each worker is categorised as:

- **Category 1:** acceptable hearing ability
- **Category 2:** mild hearing impairment
- **Category 3:** poor hearing
- **Category 4:** rapid hearing loss

A worker within category 2 should be given a formal notification regarding the presence of hearing loss. Workers falling into categories 3 or 4, or workers with ‘Category U’ (unilateral hearing loss), should be referred for further medical assessment according to the agreed process with the OHSP and in line with the Industry Standards. The referral should be initially to the occupational doctor involved in the health surveillance programme or audiologist where available. For those workers who fall into category 4 or for some other reason are identified by the OHSP, the frequency of testing will need to be reviewed and may be more frequent than the standard three-yearly tests.

Pre-placement audiometry tests

- **Do you test your workers before they start working for you?**
- **If not, how do you know whether or not they have NIHS?**

A pre-placement check is a good way of obtaining base line information about a person. They may, because of previous jobs, already suffer a degree of NIHL, and may require a high degree of protection.

How often should tests be carried out?

An audiometric programme should consist of a baseline audiogram conducted pre-placement or before exposure (or free from noise exposure for at least 16-24 hours) where noise is a hazard, followed by a schedule of audiometric testing to monitor hearing threshold levels following exposure to noise at work. The schedule of audiometric testing should include annual tests for the first two years of employment and at three yearly intervals thereafter.

- More frequent testing may be required (before the next scheduled routine test) if there is concern about changes in hearing thresholds, or where exposure conditions have altered, increasing the risk of hearing damage
- Where a workforce is already exposed to noise before the audiometric programme begins, the baseline audiogram will simply be the first test to be made. If there is no evidence of hearing loss, subsequent testing can follow the suggested schedule above unless damage is detected
- Workers with test result in category 3 (poor hearing) and category 4 (rapid hearing loss) should be referred to an occupational doctor with experience in occupational audiology, or otherwise the worker’s GP
- Workers undertaking safety critical tasks may need to be followed up by an OHSP to determine fitness for task. A task assessment may be required to ensure the health and
safety of the worker and others is not put at risk, (ie to make certain audible warning sounds/instructions can be heard)

Relevant Regulations
The following regulations apply:
Control of Noise at Work Regulations 2005
The Health and Safety at Work Act 1974
The Management of Health and Safety at Work Act 1999
Equality Act 2010
The Data Protection Act 1998
Access to Medical Reports Act 1988
Access to Health Records Act 1990
The Control of Noise at Work Regulations 2005
Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 2013 (RIDDOR)

What should you do next?
- Develop a simple policy for noise. A sample noise policy statement is provided here
- Identify someone who is to be responsible for noise on site. This could be a manager or supervisor. They should be given sufficient training and information to recognise noise related hazards and risks

Do you need to carry out a noise assessment?
You should decide if a noise assessment is needed. As a general rule, if people have difficulty hearing someone speaking normally over approximately two metres, then a noise assessment will be needed. This should be carried out by someone with the experience and skill to measure noise and identify what needs to be done.

What should you do if you identify a problem?
- Noise levels should be reduced to as low as is reasonably practicable
- Expert help can be employed to carry out a noise survey. This will give you confidence that the results are accurate and will also give effective guidance on the types of control measures that would be appropriate for your business
- Decide which work will involve noisy equipment, and assess how much the noise from this work is going to affect people working on the site and also members of the public
- The suppliers and manufacturers of equipment have a legal duty to provide information on the noise produced. This information should give a good idea if there is likely to be a noise problem

How can you reduce noise?
It is the employer’s duty to reduce noise as far as is reasonably practicable. The most effective and reliable way of controlling exposure is by engineering measures at source, which could include designing out the need for noisy processes, (eg designing concrete floors that do not
require saw cuts, or preassembled sections that can be fabricated off site under factory conditions).

**Contractors can eliminate noise by:**

- Choosing a much quieter work process. For example, for concrete joints that do not require breaking or scabbling, the connection can be prepared by casting using a chemical retarder and the face brushed to prepare the surface
- Using remote breakers
- Ensuring earth moving equipment has adequate sound proofing
- Enclosing the job by noise reducing barriers, (eg screening off the area)
- Where possible, trying to ensure that noise reduction is built into machinery
- When hiring or purchasing machinery, looking for those with silencers fitted
- Reducing the number of people who need to go into the area where the noise levels are high
- Making sure that plant/equipment is kept well maintained as this helps reduce noise levels by ensuring that dampers work correctly and rattles etc are reduced

**How can noise be reduced on multi-contractor sites?**

On multi-contractor sites, the contractor in overall charge of the site usually coordinates compliance with legislation.

- Make sure workers follow site rules and keep the principal contractor informed of any excessive noise levels produced by their work
- Ensure areas/operations where the noise levels cannot be eliminated are clearly identified with warning signs etc
- Workers must use hearing protection if provided, learn how to use it correctly and keep it clean. Dirty/broken protectors won’t work properly and could cause ear infections. Any defects in equipment or ear protection should be reported to the employer
- Workers should request a health assessment if they think that noise levels are too high. Remember, under the legislation, ear protection should only be used as a last resort; in the first instance, try to eliminate or reduce the noise as much as possible
- Ensure information and training are available for workers and supervisors regarding the risk of exposure, the damage caused, minimising risks, personal responsibilities and obtaining ear protection

**Reports**

*A Health Record should be set up, including:*

- Worker surname and forenames
- Gender
- Date of birth
- Permanent address and postcode
- National Insurance number
- Date of commencement of present employment
- A historical record of jobs involving exposure to noise or processes requiring health surveillance in this employment
Date and results of the audiometry, with any conclusions only relating to an individual’s fitness to work

Conclusions should be expressed in terms of the worker’s fitness for task and will include the conclusions of the occupational health professional or responsible person, but not ‘confidential clinical data.’

Sample noise policy statement
The provisions of The Control of Noise at Work Regulations (2005) apply to our working environment. It is our policy to exceed the requirements where reasonably practicable.

Noise on our sites which causes distraction or annoyance will be reduced wherever reasonably practicable.

Our general risk assessment will consider which areas, if any, have noise levels which may harm the hearing of our workers. Areas so identified will be designated as ‘Ear Protection Zones’ and everyone entering the area for any length of time, including management, contractors and visitors, will wear appropriate hearing protection.

Suppliers of all equipment and machinery acquired will be asked to supply an assessment of noise exposure to potential operators, which will be taken into account in buying decisions.

The effects of noise damage to hearing are insidious and, because an immediate effect is not felt, workers may feel that the potential for hearing damage is being exaggerated. However, hearing protection is only effective if used 100% of the time exposed to noise, and even very brief removal makes the protection considerably less effective.

All workers who are likely to be exposed to noise at or above the first action level of 80 dBA will be provided with information, instruction and training about the hazards and the steps to be taken to minimise the risk.

Workers are reminded that they have a legal obligation under the Control of Noise at Work Regulations (2005) to wear hearing protection in designated ear protection zones.

Failure to wear hearing protection in a designated area will also be considered as serious misconduct, for which there is a disciplinary process.

Signed
(Chairman/Managing Director/Senior Partner)

Date
You may wish to make it a company policy to eliminate the causes of NIHL in all work activities, for example hiring and using generators and compressors with silencers fitted.
Further information
Expert help is available from Constructing Better Health.

Contact us for impartial and confidential advice:
tel: 0845 873 7726 or click on www.cbhscheme.com

CBH accredited occupational health service providers are listed on the CBH website.

Further information regarding preventative measures can be found on the HSE website at:

www.hse.gov.uk

You can also find more information at: www.fitforwork.org, a government funded initiative that gives free and impartial work-related health advice.