

Protecting against noise-induced hearing loss

Choosing the proper protection for your team



Protecting against noise-induced hearing loss: Proven strategies for employers

Noisy workplaces can cause permanent and debilitating hearing damage. The Health and Safety Executive (HSE) estimates that more than 2 million UK employees are subjected to unacceptable levels of noise on the job – and over 17,000 experience deafness, tinnitus, or other ear conditions linked to excessive noise at work.

Noise-induced hearing loss (NIHL) is caused by prolonged or repeated exposure to loud sounds – typically over 85 decibels (dB). The problem cuts across industries, affecting workers ranging from school music teachers to hospitality employees and construction operatives. While hearing issues can be caused by sudden loud noises, most cases are linked to cumulative exposure, such as daily use of manufacturing machinery or agricultural equipment.

The price of poor practice

Despite noise-induced hearing loss (NIHL) being a wholly preventable occupational health condition, it's estimated to cost the UK economy £25 billion per year in lost productivity, decreased employment, and higher health and social care service use.

NIHL is the second most common reason for employers' liability insurance claims for occupational health. It's also an indirect driver of on-the-job accidents, hindering situational awareness, obscuring communication, and reducing the audibility of safety alerts.

While excessive workplace noise is the primary cause of NIHL, inadequate training and enforcement increase the risks. A recent HSE inspection campaign revealed widespread knowledge gaps among employers and staff. Although one in four businesses produced noise levels requiring mandatory hearing protection, employees at all levels lacked a practical understanding of how to implement, use, and maintain protective equipment.

Almost 63%

Almost two-thirds (63%) of employees received no guidance on the importance of continuously wearing protection during exposure to harmful noise levels.

More than 75%

More than 75% of workers did not know how to properly store their hearing protection, check for damage, or report issues to their employer.

80%

80% of staff were untrained on correctly wearing hearing protection and combining it with other personal protective equipment (PPE), such as hard hats and safety glasses.

95%

95% of employers had not checked if fire alarms, vehicle reversing alerts, and other warnings were audible when wearing hearing protection.

This white paper provides best practices to make long-term hearing health a team effort – with employers and teams collaborating to address the causes of NIHL.

We outline your responsibilities as an employer and share proactive steps to drive behavioural change, reduce noise levels and exposure, and create a safe, supportive working environment with compliance at its core.

The hidden impact of noise-induced hearing loss

Unlike many other workplace injuries, NIHL is irreversible – once the tiny hair cells in the inner ear are destroyed, they never grow back. And because hearing loss develops painlessly and gradually, the person is often unaware of damage until they face a range of debilitating health conditions:

- **Tinnitus**

Often the first sign of noise-induced hearing loss, tinnitus involves a ringing, buzzing, or roaring sound in the ears or head.

- **Hearing loss**

Caused by a sudden, intense blast of sound or prolonged exposure to loud noises.

- **Dizziness**

Exposure to loud noise can lead to dizziness, vertigo, balance problems, and blurred vision.

- **Hyperacusis**

A condition that increases sensitivity to everyday sounds.

- **Heightened dementia risk**

Research shows that moderate hearing loss in middle age can triple dementia risk.

- **Cardiovascular issues**

Hearing loss can contribute to high blood pressure and an increased heart rate.

Physical symptoms are only part of the problem. NIHL produces a costly cumulative effect within the workplace, impacting employee focus, motivation, and job satisfaction – and causing measurable drops in overall productivity and performance.

Without proactive steps to safeguard employee hearing, businesses face a range of operational and people-related issues:

Staff health and wellbeing problems

NIHL and tinnitus can profoundly affect employees' quality of life. Individuals experience communication, concentration, and sleep difficulties, leading to social isolation and mental health issues, such as stress, anxiety, and depression.

Personnel concerns and legal claims

From an employer's point of view, untreated hearing loss triggers productivity dips, higher absence rates, and staff retention problems. In workplaces where noise levels are improperly managed, NIHL is also a key contributor to compensation claims and regulatory fines.

Reputational damage

Failing to protect workers from NIHL can negatively impact brand perception and undermine staff and stakeholder trust. Increasingly, a commitment to health, safety, and employee wellbeing is a make-or-break success factor, directly influencing customer buying decisions and colleague loyalty.

Your legal responsibilities: Are you doing enough?

Despite businesses having a legal duty of care for their employees, the British Safety Council estimates that occupational noise exposure causes 16% of all cases of adult disabling hearing loss.

Under the Control of Noise at Work Regulations 2005 (the Noise Regulations), employers are required to actively prevent or reduce workplace noise risks. This involves carrying out the following practical steps:

- Assessing noise-related risks across your workplace.
- Addressing the causes of noise exposure, ideally eliminating them at source.
- Equipping employees with suitable hearing protection.
- Operating within the legal limits of occupational noise.
- Training employees on workplace noise hazards and protection.
- Using health surveillance to spot the early signs of hearing damage.

Making sense of noise levels

Two key factors contribute to occupational hearing damage: how loud a noise is and how long your workers are exposed to it. The Noise Regulations outline specific noise levels – called action values and limit values – that define when to take preventive steps and when legal exposure has been exceeded.

Action values: Your early warning system

Action values are designed to trigger preventive measures – and the sooner, the better. They relate to your employees’ noise exposure averaged over a working day or week and the peak sound pressure they experience in a working day (usually an 8-hour shift).

Category	Value	Recommended actions
Lower exposure action value	<ul style="list-style-type: none"> • 80 dB(A) daily noise exposure • 135 dB(C) peak sound pressure 	<ul style="list-style-type: none"> • Provide hearing protection. • Offer employee NIHL training and information.
Upper exposure action value	<ul style="list-style-type: none"> • 85 dB(A) daily noise exposure • 137 dB(C) peak sound pressure 	<ul style="list-style-type: none"> • Continue the actions above. • Introduce noise control measures. • Enforce hearing protection use. • Implement health surveillance for regular exposure.

Your legal responsibilities: Are you doing enough?

Limit values: Your maximum threshold

Limit values can't be exceeded by law, and your workers should never be exposed to noise above this threshold. Exceeding a limit value is a regulatory violation, which can lead to financial penalties and legal action.

Category	Value	Required actions
Daily personal noise exposure	<ul style="list-style-type: none"> 87 dB(A), including hearing protection 	<ul style="list-style-type: none"> Take immediate action to reduce exposure below this level. Use noise control measures in addition to hearing protection.
Peak sound pressure	<ul style="list-style-type: none"> 140 dB(C) 	<ul style="list-style-type: none"> You're legally required to prevent exposure above this level.

Key questions: Is your team at risk of NIHL?

A noise risk assessment, carried out by a qualified team, such as the consultants at Opus Safety, should be used to accurately identify the level of noise exposure within your business. However, a few critical questions can help prioritise your noise reduction efforts.

Employees are more vulnerable to NIHL if they:

- Spend most of their day working around intrusive noise, such as the hum of machinery, traffic, or chatter in a crowded restaurant.
- Need to raise their voice to have a conversation when standing about two metres apart.
- Use loud power tools or machinery for over 30 minutes a day.
- Are regularly subjected to impact noises, such as hammering, drilling, and metal stamping – or explosive sources like detonators or guns.
- Experience muffled hearing after work, even if it returns to normal the next morning.

Best practice solutions: How to reduce noise in your workplace

A noise risk assessment is an essential first step in safeguarding hearing health. You should schedule a noise survey whenever there's a realistic chance your employees are exposed to sounds above 80 dB(A).

Common triggers include:

- Workers raising their voices to be heard at a distance of two metres.
- Increased noise exposure due to louder equipment, new working patterns, or changes to soundproofing materials.
- Noise-related complaints from staff, customers, or nearby residents.
- Declining hearing test results across your workforce.

The risk assessment should be performed by a competent person using suitable and calibrated equipment. Your Opus safety consultant will map high-risk areas and record exposure levels, helping you develop targeted interventions and implement an effective noise compliance plan.

Your programme is likely to cover three core elements:

Engineering and administrative controls

- Your goal is to reduce noise at its source – through quieter machinery, acoustic barriers, or soundproofed spaces.
- Modify or cease noisy tasks to decrease general noise levels across your site.
- Consider noise screens or equipment enclosures to limit worker exposure if you can't invest in quieter machinery and tools.
- Curb duration hazards by rotating job roles, shift patterns, and working practices.
- Introduce zoned workspaces to eliminate the need for PPE throughout.



Best practice solutions: How to reduce noise in your workplace

Training and awareness

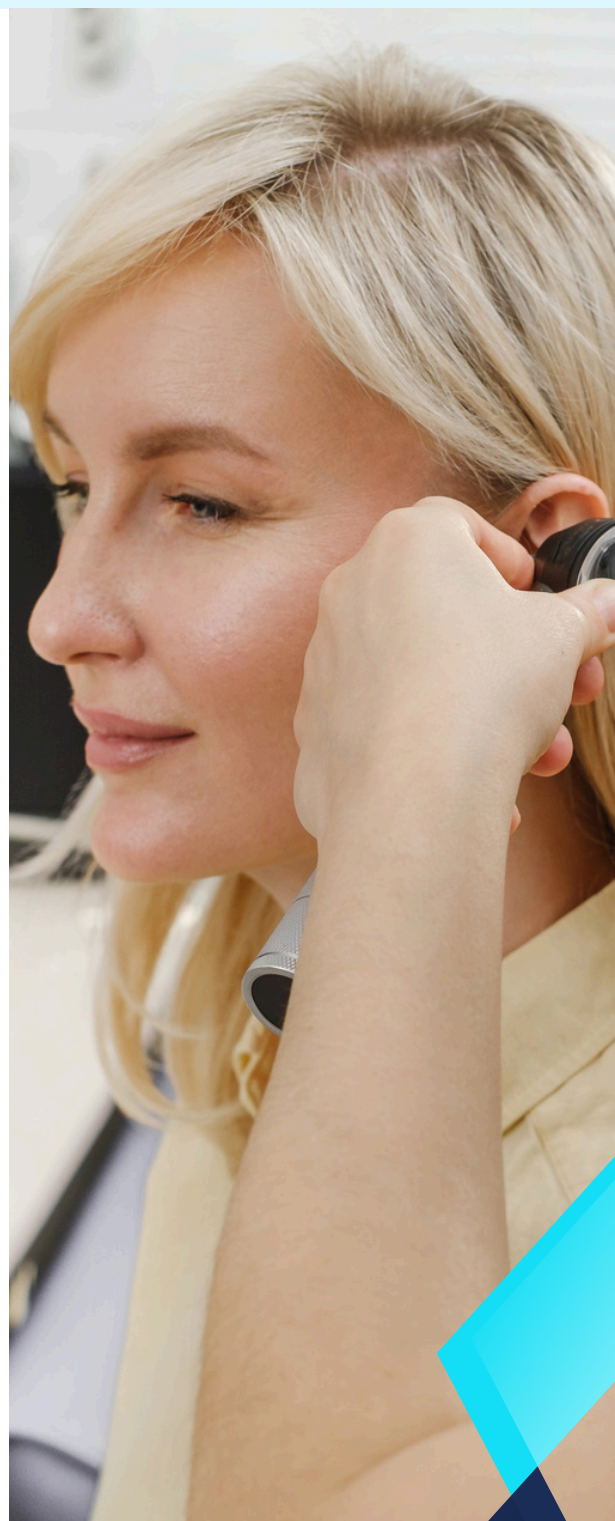
Regular, sector-specific training is vital to preventing NIHL. Opus Safety will tailor learning around your industry's unique exposure risks and attitudinal challenges. For example:

- Construction workers can benefit from peer-led sessions that break down cultural stigma.
- Farmers and machinery operators can learn from real-life examples of hearing loss caused by loud equipment.
- Music educators should be shown how specialised protection can maintain teaching quality.

Health surveillance

Routine audiometric testing, such as that conducted by Opus, helps identify the early signs of NIHL. Typically carried out on an annual basis, audiometry should be conducted by a qualified occupational health practitioner. Your partner should ideally provide:

- End-to-end audiometry, including a baseline questionnaire, ear inspection, pure-tone hearing test, audiogram interpretation, and tailored recommendations.
- Flexible screening options, including onsite, mobile unit, or head office screenings to suit your workers' needs.
- Testing that suits your working hours and shift patterns.
- Individual feedback, including test results, referrals, advisory notes, and 'Fitness to Continue Working' reports.
- Follow-up testing to monitor hearing over time.
- An online hub to store confidential audiometric records, supporting your legal requirement to review changes and detect early hearing loss.



Providing suitable hearing protection

PPE should be your last resort, used only when practical control measures can't bring noise levels within an acceptable range.

There are three basic options to consider:

Earplugs

These small inserts fit directly into the ear canal to block sound. They work best for continuous noise exposure and when using other types of PPE. When worn correctly, the hearing protection should reduce exposure levels at the user's ear to a safe range of 70 dB to 80 dB.

Options include:

- **Disposable foam earplugs** for single use.
- **Reusable, washable, pre-moulded earplugs** for regular use.
- **Musicians' earplugs** with acoustic filters, ideal for a school environment.
- **Custom-moulded earplugs** shaped to fit workers' ears. These provide the highest protection and are suitable for long-term use.

Best practice tip: *Earplugs only protect when they completely block the ear canal. Train your team on correct insertion techniques for a snug, comfortable seal, deep within the ear.*

Earmuffs

Earmuffs block sound waves by covering the entire outer ear with cushioned cups, sealed against the head. They're an ideal choice for intermittent noise exposure and cold environments – and for workers who frequently remove and replace their hearing protection.

Options include:

- **Standard earmuffs** with adjustable headbands for everyday industrial use.
- **Helmet-mounted earmuffs** that attach directly to hard hats.
- **Electronic earmuffs** to amplify speech and warning signals.
- **High-attenuation earmuffs** for extremely loud environments.

Best practice tip: *Ensure the ear cushions form a complete seal around the ears. Even a small gap from eyewear, hair, or a hard hat strap can significantly reduce protection.*

Canal caps

Canal caps feature small earplugs connected by a flexible headband. They sit just inside the ear canal and suit workers who regularly remove and reinsert their hearing protection.

Options include:

- **Soft foam or silicone plugs** on a band – ideal for short-term use.
- **Filtered canal caps** that filter out harmful noise while allowing speech and warning sounds to be heard.
- **Adjustable headband versions** to ensure a comfortable fit for different users.

Best practice tip: *Position the headband so plugs stay firmly in the ear canal throughout any task – and always check the seal before entering noisy area.*

The CUFF approach: Getting the most from your hearing protection

Hearing protection only works if it's in good condition and used properly. While employers are responsible for providing quality, correctly fitted equipment, staff should know how to wear and maintain it.

This means training your team on:

- How often to replace their hearing protection.
- How to spot and report faults.
- Where to access new protection when needed.
- When to wear their PPE.

The **CUFF approach** provides a four-step method to manage and maintain workplace hearing protection. Use it during your initial noise risk assessment and subsequent safety reviews to identify hazards and ensure suitable control measures:

- **Condition** – Regularly inspect equipment for weaknesses, damage, and hygiene concerns.
- **Use** – Teach your team when and how to use their hearing protection.
- **Fit the ear** – Confirm that protection fits the wearer – and is worn correctly.
- **Fit for purpose** – Make sure the protection is the right spec for the task.



A shared responsibility: Getting staff on board with PPE

When it comes to hearing protection, policies alone are not enough. Employers must embed a strong safety culture to address misconceptions, overcome cultural barriers, and ensure correct, consistent PPE use.

Workers can be reluctant to use hearing protection due to discomfort, perceived lack of need, or performance and communication worries. In passive safety cultures, staff may believe PPE slows their work rate or that noise hazards are 'just part of the job' – even in sectors with widely publicised noise risks, such as construction, aviation, and manufacturing.

Similarly, music teachers who spend hours in rehearsal rooms and performance halls often forgo hearing protection due to concerns that it will interfere with sound quality and teaching effectiveness.

Addressing these barriers requires a shift from tick-box compliance to an ethos of normalised, informed, and proactive hearing protection. You can boost staff buy-in by:

- **Training staff about NIHL risks** – Make hearing loss awareness part of your onboarding process and provide ongoing training and toolbox talks to spotlight specific hazards.
- **Engaging staff in PPE selection** – Involve workers in choosing comfortable, correctly fitted protection that's compatible with other safety gear.
- **Weaving protection into the workday** – Place hearing protection within easy reach, display prominent reminders, and ensure managers run regular usage checks.
- **Leading by example** – Train managers to set the standard, challenging outdated attitudes, using PPE without fail, and celebrating best practice.
- **Reinforcing positive behaviours** – Build stronger habits and a supportive, safety-first environment through regular monitoring, health surveillance, and open dialogue.





Expert support to safeguard hearing health

Noise-induced hearing loss is preventable – but remains one of the most common occupational health conditions. Employers have a legal duty to safeguard their team’s hearing and create a culture where hearing protection is used properly and proactively.

Through comprehensive risk assessments, specialist protective equipment, and targeted training, companies can immediately reduce their risk of NIHL – and build safer, healthier, and more productive workplaces for the future.

For practical, business-focused plans to tackle noise-induced hearing loss in your organisation, talk to Opus Safety.



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