

Noise – what is the issue?

Noise can have a temporary or permanent effect on hearing. Understanding your workplace exposure to noise and how to manage it is crucial to the health and safety of staff, volunteers, contractors and visitors to your facility.

Noise can impact the nerve cells in the inner ear, resulting in the temporary reduction of hearing.

Usually, under quiet conditions, this type of temporary hearing loss sees recovery in 24 hours. However, repeated exposure to loud noise over time can cause permanent injury, reducing a person's ability to hear high pitch sounds.¹

Safe Work Australia estimate that between 28-32% of Australian workers are in an environment where they are exposed to loud noise.² Resultingly workplaces must manage this risk for the safety of employees.

Noise – regulations:

In the model Work Health and Safety (WHS) regulations workers cannot be exposed to more than 85 decibels over an 8-hour work day. Additionally, they also must not be exposed to peak noises of greater than 140 decibels. The risk of noise in the workplace must be eliminated or minimised as far as reasonably practicable.³

Noise - impact:

In Australia from 2001 to 2015 there were on average 4,700 claims for hearing loss per year. Of these claims 35% were from the manufacturing industry and 18% from construction.⁴

Noise – identify the risk:

Consult with your staff in relation to health and safety issues to identify and understand noise related exposures and the best means to eliminate and minimise them. Noise hazards can be identified through regular walks around the workplace and identifying which tasks produce loud noise. Additionally, identify the use of any ototoxic substances such as certain solvents, asphyxiants, metals and metal compounds in the workplace as these in isolation and in conjunction with

exposure to loud noise may impact hearing.⁵ In these instances further control measures should be investigated and adopted.

An employer should conduct a noise determination assessment if there is uncertainty as to whether the employee's exposure exceeds WHS regulations. Such assessment and noise monitoring should be conducted by a suitably qualified technician to assist in highlighting the noise levels of specific activities and machinery in the workplace. Guidance on such assessments can be found in AS/NZS 1269.2 Occupational noise management measurement and assessment of noise emission and exposure. Additionally, equipment manufacturers should provide information relating to control measures to minimise the exposure to noise from their equipment and information on how to best maintain machinery to reduce noise levels.



Noise - managing the risk:

- ▼ If you can, eliminate the need for noisy equipment and machinery.
- ▼ Substitute or adopt engineering controls to reduce noise, can quieter equipment be used or can equipment be modified? When selecting new equipment ask

manufacturers and suppliers for sound power level data, this is a measure in decibels of sound energy for the equipment.

- ▼ Consider administrative controls such as rotating staff between noisy and quieter tasks.
- ▼ Provide personal protective equipment such as hearing protection. If employees need hearing protection to reduce their exposure below the required standards then regular audiometric testing must be conducted. The selection of hearing protection should consider the nature, level and duration of the noise. Care should be taken not to create other hazards from over protection which for example can make important warning alarms inaudible. Hearing protection should comply with AS/NZS 1270 Acoustics – hearing protectors. Training in the correct use of hearing protection and signage indicating the areas that hearing protection is required are also necessary.

Review your means for managing noise exposures regularly to find the best solutions and ultimately the best outcomes for the safety of your staff, contractors and visitors.

References:

1. Work Safe Victoria, Noise: Safety basics 2018, viewed 14 December 2018 <<https://www.worksafe.vic.gov.au/noise-safety-basics>>
2. *ibid.*
3. Safe Work Australia, Control Guide Management of Noise at Work 1991, viewed 14 December 2018 <<https://www.safeworkaustralia.gov.au/doc/control-guide-management-noise-work>>
4. Safe Work Australia, Noise 2018, viewed 14 December 2018 <<https://www.safeworkaustralia.gov.au/noise>>
5. Campo P, Morata T, Hong O, Chemical exposure and hearing loss 2013, viewed 19 December 2018 <<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4693596/>>