



Management of Hazardous Sound Exposure Standard

Procedures and programmes to avoid or minimise the onset and progression of a hearing impairment due to exposure to loud sound, in the workplace or recreationally. In this document, the term 'noise' refers specifically to any hazardous or damaging sound levels (of any type).

Expected Outcomes

Primary prevention eliminates, inhibits, or delays the onset and progression of a hearing impairment and/or tinnitus by minimising risk or reducing hazardous sound exposure for persons at risk.

Occupational Noise Management Programmes (ONMPs) are designed to reduce or prevent occupational noise-induced hearing loss and educate employees and management about health hazards associated with noise exposure within and outside the workplace. Exposure to loud sound outside the workplace also needs to be considered, as hearing can also be damaged by over use of personal stereos and other types of recreational noise exposure such as shooting or use of power tools

Clinical Indications

These services are provided for individuals of all ages at risk for hearing loss and tinnitus due to exposure to hazardous sound levels in all settings.

Hearing health education is important for all individuals exposed to hazardous sound levels through work, recreation or hearing instruments.

ONMPs are indicated when noise levels in workplaces are approaching or reach nationally mandated noise exposure levels. Implementation of ONMPs may be mandated by national regulations.

Clinical Process

Target groups are identified and consultation and educational strategies are employed, as appropriate.

Audiologists should work in collaboration with other professionals, including health and safety officers, occupational health nurses, medical practitioners, hearing therapists, environmental, safety and acoustical engineers and relevant government bodies (e.g. Department of Labour, ACC etc.). In the case of loud sound exposure through recreation, audiologists should work in collaboration with families and caregivers, schools, community groups, government agencies and industry to reduce hazardous sound exposure. Advice should be offered for leisure, healthcare, education, business, and industrial settings for individuals, families, groups, and organisations.



Management of Hazardous Sound Exposure Standard

Education should include information concerning the effects of loud sound exposure on hearing and audiologists may provide general information about:

- Types and levels of sound that may cause damage.
- Effects of loud sound on other aspects of health.
- Exacerbating factors for hearing loss such as stress, smoking and exposure to solvents.
- Communication processes.
- Hearing loss and tinnitus.
- Therapeutic management, improving abilities to cope with hearing loss and tinnitus.
- Methods for eliminating risks for the onset and progression of hearing loss and tinnitus.
- Identification of noise hazards.
- Sound exposure monitoring.
- Elimination of sound hazard, or reduction of sound levels through engineering or other controls.
- Auditory assessment including evaluation with respect to job requirements.
- Monitoring changes in hearing.
- Audiogram review and referral.
- Recommendation, demonstrating and/or supply of personal hearing protectors and training in their use.
- Evaluation of effectiveness of hearing protectors.
- Use and limitations of hearing protection.
- Communication devices.
- Occupational Safety and Health Legislation Regulations relating to Hazardous Sound Exposure.

For ONMP programmes **specifically** additional advice may be given on:

- Consultation with employees.
- 'Buy Quiet' programmes.
- Quiet process substitution.
- Engineering controls to reduce noise at source.



Management of Hazardous Sound Exposure Standard

- Technology to reduce the risk of acoustic shock in 'at risk' industries such as call centres.
- Administrative controls.
- Behaviour management, including employee and manager education and motivation
- Record keeping.
- Hearing level monitoring.
- Development of criteria for referral of employees for whom follow-up is required.
- Employee and manager education and motivation.
- Record keeping.
- Development of criteria for referral of employees for whom follow-up is required.
- Other factors in the workplace that can damage hearing such as exposure to solvents.
- Occupational Safety and Health Legislation Regulations relating to Hazardous Sound Exposure.

Setting/Equipment Specifications

Equipment specifications used in audiological practice must meet the standards for the procedures carried out and occupational noise management programmes must, at a minimum, remain up to date and meet current national regulations and legislation.

Related References

- *Health and Safety in Employment Act, 1992, Wellington, NZ*
- *Health and Safety in Employment Regulations, 1995, Wellington, NZ*
- *Australian/New Zealand Standard AS/NZS 1269: 2005 Occupational noise management: 2005, Standards New Zealand, Wellington, NZ*
- *Australian/New Zealand Standard AS/NZS 1270: 2002 Acoustics – Hearing protectors, Standards New Zealand, Wellington, NZ*
- *Occupational Safety & Health Service (2002) Approved Code of Practice for the Management of Noise in the Workplace, Department of Labour, Te Tari Mahi, Wellington, NZ*
- *Occupational Safety & Health Service (2003) Occupational Noise Exposure, Selection and Use of Hearing Protectors, Department of Labour, Te Tari Mahi, Wellington, NZ*
- *Occupational Safety & Health Service (2004) Classified Hearing Protectors, Department of Labour, Te Tari Mahi, Wellington, NZ*



Management of Hazardous Sound Exposure Standard

- *Berger, EH, Royster, LH, Royster, JD, Driscoll, DP and Layne, M (2000) The Noise Manual, AIHA Press, Fairfax, Virginia, USA*
- *Macrae, J.H., (1995). Hearing Conservation Standards for Occupational Noise Exposure of Workers from Headphones or Insert Earphones. 107- 115.*
- *National Acoustic Laboratories. (1988 January). Improved Procedure for Determining Percentage Loss of Hearing. (NAL Report No. 118). Sydney, NSW: National Acoustic Laboratory.*
- *Wagh, R.L. & Macrae, J.H. (1980). Criteria for Assessing Hearing Conservation Audiograms. (NAL Report No. 80). Sydney, NSW: National Acoustic Laboratory.*