

NOISE CONTROL AND MANAGEMENT PROCEDURE[®]

DOCUMENT SUMMARY/KEY POINTS

- The Sydney Children's Hospitals Network (SCHN) is committed to the identification, assessment and control of risks associated with noise exceeding the exposure standard in the workplace by complying with the Work Health and Safety Act 2011 and Work Health and Safety Regulation 2017, Codes of Practice, Standards, Policies and Procedures.
- This procedure should be read in conjunction with the SCHN Work Health and Safety Risk Management Procedure which outlines general requirements for the management of risk including:
 - Consultation with workers
 - Consultation, co-operation and co-ordination of activities with other duty holders
- This procedure identifies the need to identify hazards associated with noise exceeding the exposure standard and implement adequate control measures to minimise as far as it is reasonably practicable the noise hazard in the workplace.
- Identifies manager and worker responsibilities regarding noise levels in the workplace.

Related Information

- [WHS Act 2011](#)
- [WHS Regulation 2017](#)
- [SCHN Work Health Safety Risk Management](#)
- [SafeWork NSW Code of Practice Managing Noise and Preventing Hearing Loss at Work August 2019](#)

This document reflects what is currently regarded as safe practice. However, as in any clinical situation, there may be factors which cannot be covered by a single set of guidelines. This document does not replace the need for the application of clinical judgement to each individual presentation.

Approved by:	SCHN Policy, Procedure and Guideline Committee	
Date Effective:	1 st September 2022	Review Period: 3 years
Team Leader:	Manager	Area/Dept: Work Health and Safety

CHANGE SUMMARY

- This document has been updated in relation to current Ministry of Health Policies, WHS Legislation and Codes of Practice.

READ ACKNOWLEDGEMENT

- All managers/supervisors should be aware of this procedure.
- Local manager/supervisor to determine which SCHN staff, if any, is to read and acknowledge they understand this document.

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1. Introduction

This procedure applies to Sydney Children's Hospitals Network (SCHN) workers working in areas where there is potential for exposure to noise that can contribute to hearing loss. It outlines the Safety precautions to be undertaken for workers that may potentially be exposed to levels of noise at or above LAeq, 8H of 85 dB(A) or LC peak of 140 dB(C)

SCHN must eliminate risks arising from hazardous noise, or if that is not reasonably practicable, minimise the risks so far as is reasonably practicable.

2. Expected outcomes

To provide practical guidance on how to identify and assess exposure to noise and how to control health and safety risks arising from hazardous noise levels.

3. Definitions

Audiometric test (or testing) means the measurement of the hearing threshold levels of a person by means of monaural pure tone air conduction threshold tests. Audiometric testing and assessment of audiograms should be carried out by a competent person in accordance with the procedure in AS/NZS 1269.4:2014

A-weighting dB(A) refers to a standardised frequency response used in sound measuring instruments. It corresponds approximately to the human ear response at low sound levels. Sound pressure levels measured using this response, which is expressed in units of dB(A).

C-weighting dB(C) refers to a standardised frequency response used in measuring sound. It corresponds approximately to the human ear response to a high sound level. Sound pressure levels measured using this response, which is expressed in units of dB(C).

Consultation involves the sharing of information, giving workers a reasonable opportunity to express views and taking those views into account before making decisions on health and safety matters.

Decibel (dB) is the unit for measuring sound levels.

Exposure standard for noise is defined in the WHS Regulation as an LAeq, 8h of 85 dB(A) or and LC, peak of 140 dB(C). There are two parts to the exposure standard for noise because noise can either cause gradual hearing loss over a period of time or be so loud that it causes immediate hearing loss.

Hazardous noise in relation to hearing loss, means noise exceeds the exposure standard for noise in the workplace.

LAeq, 8h means the eight hour equivalent continuous A-weighted sound pressure level in decibels, referenced to 20 micropascals, determined in accordance with AS/NZS 1269.4:2014. This is related to the total amount of noise energy a person is exposed to in the course of their working day. It takes account of both the noise level and length of the time the person is exposed to it. An unacceptable risk of hearing loss occurs at LAeq, 8h values above 85 dB(A).

LC, peak means the C-weighted peak sound pressure level in decibels, referenced to 20 micropascals, determined in accordance with the relevant standard. It usually relates to loud, sudden noises such as a gunshot or hammering. LC, peak values above 140 dB(C) can cause immediate damage to hearing.

Noise levels which exceed the National Standard mean an area where persons may be exposed to excessive noise. No person should enter without wearing hearing protection. The area should be clearly defined and signposted as per AS 1319-1994 Safety signs for the occupational environment.

Worker means any person who carries out work for a PCBU, including work as an employee, contractor or subcontractor (or their employee), self-employed person, outworker, volunteer, apprentice or trainee, work experience student, employee of a labour hire company.

4. Identification of Risks

Noise level should be measured in all work places where:

- The task performed or work environment is liable to present a noise hazard and it is considered that the noise exceeds the standard set by Work Health and Safety Regulations 2017, Part 4.1 Section 56:
 - The worker considers that they are exposed to a noise level which inconveniences them or disturbs their work. As an informal guide, consider a noise assessment if the noise is such that you have to raise your voice in order to communicate with a person about one metre distant.
- Noise assessments in at risk areas need to be conducted every 5 years or if the equipment, work or building changes.
- Exposure to some chemicals can also result in hearing loss. These chemicals are known as ototoxic substances. Hearing loss is more likely to occur if a worker is exposed to both noise and ototoxic substances than if exposure is just to noise or ototoxic substances alone. There are three major classes of ototoxic substances;
 - solvents
 - heavy metals, and
 - asphyxiants

Refer to the Schedule 10 of the WHS Regulation for a list of ototoxic substances.

- Acoustic incidents of sudden, unexpected loud noises occurring during telephone headset use such as crackles, hisses, whistles, shrieks or high-pitched noises should be reported and control measures considered eliminating or minimising the risk of acoustic shock.

4.1 Manager/Supervisor Responsibilities

- Ensure compliance with legislative requirements. See clauses 56 to 59 of the NSW WHS Regulation 2017 [NSW WHS Regulation 2017](#) or [SafeWork NSW Managing Noise and Preventing Hearing Loss at Work Code of Practice - August 2019](#) for further information
- If a noisy activity is identified that may expose workers, unless the noise can be reduced to below the exposure standard, a risk assessment must be completed.
- Consult with workers and health safety representatives for risk identification, assessment and control of noisy activities. Also, consult during the purchase of equipment and job redesign as part of a comprehensive approach to effectively manage the risk of noise-induced hearing loss and other noise-related health effects.
- Make workers aware of noise control measures used to reduce noise.
- Ensure workers receive appropriate training and education.
- Supervise workers to encourage cooperation with agreed safe work practices.
- When personal hearing protection is issued ensure workers are instructed on the correct use and maintenance of the equipment and replace damaged personal hearing protection.
- Ensure workers undertake an audiometric test according to legislative requirements.
- Ensure a noise assessment is completed for areas of work that may pose a risk to workers and to complete a re-assessment if the initial assessment identifies that exposure standard for noise is exceeded, read part 8 for more details.

4.2 Worker Responsibilities

While at work, a worker must:

- Take reasonable care for their own health and safety and that they do not adversely affect the health and safety of other persons.
- Comply, so far as the worker is reasonably practicable, with any reasonable instruction that is given by the Person Conducting a Business or Undertaking (PCBU) in all activities that have as their objective the protection of hearing at work and the minimisation of noise induced hearing loss.
- Co-operate with any reasonable policy or procedure of the PCBU relating to preventing occupational noise induced hearing loss
- Use prescribed personal protective equipment in accordance with directions and report any faults.

- Participate in induction and training as required.
- Report any noise hazards and incidents to a supervisor or manager and log the incident in ims+.

4.3 Patients and Visitors Responsibilities

Visitors, clients and patients at SCHN have work health and safety responsibilities and must:

- Take reasonable care for their own health and safety, and
- Take reasonable care that their acts or omissions do not adversely affect the health and safety of other persons, and
- Comply, so far as they are reasonably practicable, with any reasonable instruction that is given by SCHN to allow compliance with the Work Health and Safety Act.

4.4 SCHN Workplace Health and Safety Team

Will assist with implementing this procedure by;

- Verifying the Noise Hazard Identification Checklist where a potential noise risk is identified.
- Coordinate the external provider to conduct Noise Assessments, if required.
- Assist Managers/Supervisors to implement recommended controls from the conducted Noise assessment.
- Coordinate and organise Audiometric tests for workers.

5. Control and Reduction of Noise at Workplace

- Noise control and/or reduction measures should be aimed at:
 - controlling noise at the source wherever possible
 - precluding the propagation, amplification and reverberation of noise
 - isolating the workers
- If it is not possible to reduce the noise below the hazard level by appropriate design or installation of the equipment, consider:
 - Engineering treatment of the noise transmission path.
 - Administrative noise control measures such as job rotation, job redesign or rosters which are designed so that as few employees as possible are exposed to noisy operations. The length of exposure to noise should be limited.
 - Personal hearing protection appropriate for the task and the noise level.

- Provide high quality headsets with acoustic shock protection devices in call centres.
Reducing background noise in the room.

6. Hearing Protection Areas

- All areas or equipment in the hospital where noise levels exceed the exposure standard must comply with the following:
 - The area or the equipment must be appropriately sign posted.
 - No staff shall enter the area or use the equipment unless wearing appropriate personal hearing protectors.
 - All staff issued with hearing protectors must inspect their equipment on each occasion of use to detect and report any damage or deterioration to their supervisor or manager.

7. Noise Assessment

The Code of Practice Managing Noise and Preventing Hearing Loss at Work 2019 applies to all types of work and all workplaces covered by the WHS Act 2011 where there is a potential for exposure to noise that can contribute to hearing loss. To comply with the WHS Act, a PCBU is required to identify and assess exposure to noise and control health and safety risks arising from hazardous noise in the workplace in accordance with the guidance given in the Code of Practice.

- As an indicative guide, it is considered that when it is necessary to use a raised voice in order to communicate with a person about one metre distant, it is advisable to carry out noise measurements through a workplace noise survey and noise exposure assessment. When the average level of noise in the workplace is likely to exceed 80 (dBA) it is advisable to carry out a noise assessment. If the average noise levels are likely to reach 85 (dBA) and/or peak noise levels to reach 140 (dBC), the noise assessment becomes mandatory including implementation of immediate control measures under the WHS legislation.

Objectives of a Noise Assessment

- The type and detail of noise measurements in the workplace or occupational noise survey and the noise assessment will depend on how the information will be used. The general objectives of the occupational noise survey and workplace noise assessment are to:
 - Identify all significant noise sources and workers likely to be exposed to noise above specified levels (noise exposure standards).
 - Obtaining information on noise sources and work practices that will help deciding what measures should be taken to reduce noise levels in the workplace.
 - Check the effectiveness of measures taken to reduce exposure

- Assist in the selection of appropriate personal hearing protectors.
- Delineate hearing protection areas.
- The period between noise assessments should be determined by management in consultation with workers through established consultative processes. The noise assessment should be repeated at intervals not exceeding five years or whenever there is:
 - Installation of new or removal of machinery.
 - A change in workload or equipment operating conditions likely to cause a significant change in noise levels.
 - A change in building structure likely to affect noise levels.
 - Modification of working arrangements affecting the length of time workers would spend in noisy workplaces.

Noise Assessment

- Noise assessments are required to be conducted at a workplace where noise hazards have been identified as a workplace hazard. Noise assessments should be conducted in accordance with AS/NZS 1269 – 2014 Occupational Noise Management and the WHS legislation. Noise assessments can range from a preliminary investigation targeting specific known noisy areas within the workplace to a full detailed noise assessment which measures all areas throughout the workplace.
- Noise assessments are conducted throughout the identified workplace using specialised equipment called sound level meters. Noise monitoring can also be conducted on workers that work in noisy areas to determine their personal exposure using sampling equipment called dosimeters or personal sound exposure meters.
- Workers' noise exposure cannot exceed more than 85 dB(A) over an 8 hour shift of work. If workers are required to work in an area which has been identified as having noise levels exceeding 85 dB(A) then a Noise Management Plan is required to be developed. This Management Plan documents the existing and proposal control measures to minimise workers' noise exposure. It is very important for The PCBU to conduct follow-up noise assessments after all controls have been implemented to determine whether the controls in place are satisfactory.

8. Audiometric Testing

- Before the introduction of audiometric testing occurs the PCBU must consult with workers so that they understand the aim of the testing is to evaluate the effectiveness of control measures to protect their hearing. Audiometric testing & assessment should be completed by a competent person in accordance with the AS/NZS 1269.4:2014. Workers should be given the results of audiometric testing accompanied by a written explanation of the meaning and implications. The reasons for any changes in hearing levels over time should be thoroughly investigated.

- All new workers working in a potentially noisy environment must undergo baseline audiometric testing as part of a pre-placement medical assessment. Workers transferring to a position that involves working in a potentially noisy environment must undergo a baseline audiometric assessment if this has not already been conducted. The audiometric testing must be provided within 3 months of the worker commencing the work.
- Where a new employee is found to be already suffering from noise induced hearing loss he/she is required to show evidence of a workers compensation claim against a previous employer before the person can be employed.
- Where a work area or process has been identified and assessed as exposing employees to greater than the average level of 85 dB(A) over a 8 hour day or a 40 hour week, the relevant employees must be offered audiometric testing.
- Audiometric testing will be conducted if the worker is required to frequently use personal hearing protectors as a control measure for noise that exceeds the exposure standard.
- Regular follow up test will be conducted at least every 2 years.
- More frequent testing (e.g. every six months) may be needed if exposures are at a high LAeq, 8h which is equal or greater than 100 dB(A).

9. Education and Training

- Training must be provided to workers where the exposure standard for noise is exceeded. Training is developed by and booked through the Work Health and Safety in consultation with the departments and should include;
 - The health and safety responsibilities of each party at the workplace,
 - How hearing can be affected by exposure to noise,
 - The detrimental effects hearing loss and tinnitus have on the quality of life, both at work and socially,
 - The tasks at the workplace that have the potential to give to hearing loss and the likely noise exposure level,
 - How to apply noise control measures,
 - How to select, fit, wear, maintain and store hearing protectors,
 - How to report defects on hearing protectors and noise control equipment or raise any concerns regarding hazardous noise,
 - The purpose and nature of audiometric testing.

10. References

1. WHS Act 2011:
<https://legislation.nsw.gov.au/view/html/inforce/current/act-2011-010>
2. WHS Regulation 2017:
<https://legislation.nsw.gov.au/view/html/inforce/current/si-2017-0404>
3. SafeWork NSW Code of Practice Managing Noise and Preventing Hearing Loss at Work August 2019
https://www.safework.nsw.gov.au/_data/assets/pdf_file/0017/50075/Managing-noise-and-preventing-hearing-loss-at-work-COP.pdf
4. PD2018_013 Work Health and Safety: Better Practice Procedures
https://www1.health.nsw.gov.au/pds/Pages/doc.aspx?dn=PD2018_013
5. AS/NZS 1269.4:2014 - Occupational Noise Management, Auditory Assessment.
6. AS/NZ 1270 – 2002, Acoustics - Hearing Protectors. Standards Australia: Sydney 2002

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