



Section:	Occupational Health	Date of Issue:	2014.08.06
		Issued By:	Staff Wellness
Part:	Health Surveillance Program for Noise Exposure	Revision #:	1
		Revision Date:	2015.02.23
Pages:	7	Revised By:	B.Webster, M. Simard

1.0 Purpose ..... 2

2.0 Scope ..... 2

3.0 Definitions ..... 2

4.0 Guiding Principles ..... 3

5.0 Responsibilities ..... 3

    5.1 Faculty & Staff:..... 3

    5.2 Supervisor & Manager: ..... 4

    5.3 Environment, Health and Safety:..... 4

    5.4 Staff Wellness: ..... 4

    5.5 Contract Physician: ..... 4

6.0 Internal Processes ..... 5

7.0 Audiometric Testing ..... 5

8.0 Recall Testing ..... 5

9.0 Referrals and Follow Up..... 6

10.0 Education..... 6

11.0 Post Exposure Testing ..... 6

12.0 Alberta Workers' Compensation Board Claims..... 6

13.0 Alberta Human Services ..... 6

14.0 Confidentiality of Audiometric Data ..... 7

15.0 Reporting ..... 7

16.0 Evaluation ..... 7

17.0 Supplemental Documents ..... 7

## 1.0 Purpose

The University of Calgary depends on the contributions of Faculty and Staff to create a high-quality learning environment and support the University in being one of the top research universities in Canada. To achieve this, prevention and early detection of any occupational illness and injury is essential.

The University of Calgary is committed to promoting the health of Faculty and Staff with comprehensive health surveillance programs. Noise induced hearing loss is a preventable hearing disorder. Some work areas and work activities at the University of Calgary have been identified as having noise exposure levels that are high enough to require the use of hearing protective devices (HPD's) to prevent noise induced hearing loss (NIHL).

This program has been developed in accordance with legislated requirements, as outlined in Part 16 of the Alberta Occupational Health & Safety (OH&S) Code (2009).

## 2.0 Scope

This program applies to University of Calgary Employees. It is in addition to, and does not replace, provisions in current Collective Agreements. There are several groups at the University exempt from this program. Students, the public, visitors, visiting scholars and any employee serving less than a 6 month term are outside the scope of this program and will not be included.

## 3.0 Definitions

Abnormal Audiogram	An audiogram that indicates: <ul style="list-style-type: none"><li>• the threshold in either ear is more than 25 dB at 500, 1000 or 2000 Hz,</li><li>• the threshold in either ear is more than 60 dB at 3000, 4000 or 6000 Hz, or</li><li>• there is one-sided hearing loss with the difference in hearing threshold level between the better and the poorer ear exceeding the average of 30 dB at 3000, 4000 and 6000 Hz</li></ul>
Abnormal Shift	A threshold shift, in either ear, of 15 dB at two consecutive test frequencies from 1000 Hz up to and including 6000 Hz when compared to the baseline test.
ALARP	ALARP stands for "as low as reasonably practicable".
Audiometric Technician	A person who has passed an audiometric technician course approved by the Director of Medical Services, or has been approved by the Director of Medical Services as having the equivalent of an approved audiometric technician course and who, in either case, has passed a requalification examination when requested to do so by the Director of Medical Services.
Audiometry	A method of hearing assessment that tests an individual's ability to hear sounds of different intensities and frequencies. Audiometry detects early noise-induced hearing loss before the affected individual is even aware that it is happening.

A-weighted decibel	The A-weighted decibel or dBA, is a type of decibel measurement which closely represents the manner in which a human ear responds to noise.
Baseline Audiogram	The audiogram against which future audiograms are compared.
Decibel	The decibel (dB) is a unit of measurement of sound pressure level that is a logarithmic and dimensionless.
Hearing threshold	The sound level below which a person's ear is unable to detect any sound. For adults, 0 dB is the reference level.
Noise-exposed worker	As per Schedule 3, Table 1 of the Alberta OH&S Code, any worker who is or may be exposed to noise in excess of an 8 hour time-weighted average (TWA) of 85 dBA is considered to be a noise-exposed worker and is required to undergo audiometric testing . In consideration of the OH&S code requirements, the University implemented an action level of 82 dBA TWA for an 8-hour work shift (80 dBA TWA for a 12 hour work shift) for employee inclusion in the Health Surveillance Program for noise exposure.
Manager/Supervisor	An individual that directs or oversees a person, group, department, organization, or operation.
Time-weighted average	The time-weighted average (TWA) represents the average (noise) exposure measured over a typical 8-hour workday.
Three Decibel Exchange Rate	When the sound energy doubles, the decibel level increases by three.
Traumatic noise exposures	An incident where workers are exposed to sudden extremely elevated noise levels, i.e. explosion.

## 4.0 Guiding Principles

### The University believes that:

- All employees have a responsibility to identify and control hazards in the work place;
- Faculty and staff are active participants both identifying hazards that exist in their work areas and protecting themselves from health hazards identified;
- Support is provided for those exposed to identified health hazards in their work area through effective communication and collaboration between Environment Health and Safety (EH&S) and Staff Wellness;
- Regular communication between managers and their staff to identify potential hazards and controls is essential;
- This program is a legislative requirement under the Alberta OH&S Code(2009);
- All parties have an obligation to meet their responsibilities under this program.

## 5.0 Responsibilities

### 5.1 Faculty & Staff:

- Report any noise concerns to their direct supervisor or manager for investigation;

- Attend all health surveillance activities, as defined by the health surveillance program for noise exposed workers;
- Seek solutions to health and safety issues in their work areas.

## **5.2 Supervisor & Manager:**

- Report any new or previously unidentified sources of noise to EH&S for follow up;
- Implement controls to maintain all noise exposures in the work areas to ALARP;
- Ensure noise exposed workers are available for all health surveillance activities or follow up activities, as outlined in this program;
- Ensure communication to EH&S and Staff Wellness if there is a change to work environments or processes where a worker may become noise exposed or where a worker may no longer be noise exposed;
- Communicate compliance expectations to their staff;
- Seek solutions to health and safety issues in their work areas
- Use implemented controls to maintain noise exposures in the work area to ALARP

## **5.3 Environment, Health and Safety:**

- Conduct noise assessments to identify noise exposed workers and report to Staff Wellness;
- Notify Staff Wellness if workers are noise exposed and require health surveillance, or if changes to work processes or environments cause a group to be or no longer be noise exposed.

## **5.4 Staff Wellness:**

- Manage the Health Surveillance Program for Noise Exposure along with any supporting resources and documents;
- Support workers and managers in fulfilling their responsibilities;
- Ensure health surveillance activities meet or exceed legislated requirements;
- Ensure audiometric testing is completed for noise exposed workers;
- Provide feedback to noise exposed workers upon completion of audiometric testing;
- Ensure appropriate recalls of noise exposed workers;
- Ensure appropriate referrals and recommended follow-up is communicated to workers when required;
- Provide workers with education and health promotion related to noise in the workplace, NIHL and use of hearing protection;
- Maintain and report statistics and trending related to audiometric testing as appropriate;
- Ensure evaluation, continuous improvement and revision of the program
- Provide advice and support to managers regarding noise exposure concerns or issues related to noise in the workplace;
- Maintain confidentiality of health records;
- Maintain health surveillance records according to legislated standards/University retention requirements.

## **5.5 Contract Physician:**

- Review medical information and audiogram for validity;
- Classify the audiogram;
- Recommend follow up for the employee;
- Notify the employee within 30 days of any abnormal or abnormal shift audiogram;
- Advise on the effectiveness of the program.

## **6.0 Internal Processes**

Noise exposed workers will be identified in collaboration with the EH&S department. Noise monitoring and reporting will be conducted by EH&S and any identified noise exposed work groups will be communicated to the Occupational Health Division of Staff Wellness.

Staff Wellness will manage surveillance groups for noise exposed employees. Trending from health surveillance will be compiled and any work activities that may require follow up or testing will be reported to EH&S and the area manager.

All audiometric testing data will be stored in the University of Calgary's electronic medical record system and retained for not less than 67 years.

## **7.0 Audiometric Testing**

Audiometric testing will be conducted on all employees who are identified as noise exposed workers. Baseline testing will occur within 6 months of initial hire with a repeat test conducted not more than 12 months following the baseline test. Periodic testing will then occur every 2<sup>nd</sup> year thereafter.

Baseline testing will occur when there have been identified process or job changes that cause a worker to become noise exposed. This testing will be conducted within 6 months of job or process change.

Staff Wellness is responsible for conducting the audiometric testing. Any person conducting the testing will be a certified audiometric technician. The tester is responsible to conduct the audiometric testing, record results, and provide a written copy of results to the employee. In the event services are provided by a third party contractor, the contract company will ensure the tester is a certified audiometric technician. The contract company will be responsible to provide results to the employee, and a copy will be forwarded to the Occupational Health Nurse, Staff Wellness.

Equipment used to conduct testing will be maintained according to manufacturer requirements. Background noise measurements will be conducted annually. Records of background noise measurements will be documented and retained for not less than 67 years.

At the time of audiometric testing, a medical history will be collected in the form of a questionnaire. The audiometric technician will review the audiogram for indicators of early NIHL. If there is any indication, the tester will advise the employee of these results. At this time additional education regarding the proper use of hearing protective devices will be reinforced. Test results will be forwarded to the Occupational Health Nurse, Staff Wellness for interpretation and monitoring.

## **8.0 Recall Testing**

Noise exposed workers will be recalled within 12 months of their baseline test, and every two years thereafter. Recalls will be co-ordinated and managed through Staff Wellness. The supervisor/manager will ensure that time is provided for the employee to attend scheduled appointments.

Workers may also be recalled for testing following an acute exposure to noise, such as an explosion. In the event the worker has an acute exposure, recalls will be performed at regular intervals, to monitor return to normal hearing. Staff Wellness will co-ordinate and manage all recalls related to acute noise exposures.

## **9.0 Referrals and Follow Up**

In the event that audiometric testing indicates an abnormal audiogram or an abnormal shift, the worker will be notified of the change. The abnormal test results will be sent to the occupational health physician for review.

If the audiometric testing results are confirmed as abnormal or an abnormal shift, the physician is responsible to notify the Occupational Health Nurse, Staff Wellness, who will then notify the worker within 30 days. Any worker with a confirmed abnormal audiogram or abnormal shift will be offered a one on one education session with the Occupational Health Nurse to provide focused education and hearing protection fit testing. Employees who do not participate in the one on one education session will be sent a notification letter indicating the results of their hearing test and recommended follow-up care.

Staff Wellness will document all physician recommendations and will co-ordinate further referrals, recall testing or education that is recommended.

## **10.0 Education**

The worker will receive hearing loss related education as needed. Proper use of HPD will be demonstrated and ear plug fit testing will be offered to the employee by Staff Wellness.

## **11.0 Post Exposure Testing**

In the event that a worker has a traumatic noise exposure, Staff Wellness will be notified and will coordinate follow up testing, if required. This will be conducted in conjunction with an occupational physician/audiologist. Any traumatic noise exposures will be reported to the area manager for investigation.

## **12.0 Alberta Workers' Compensation Board Claims**

Noise-induced hearing loss arising from occupational noise exposure is a compensable occupational disease in Alberta (WCB Alberta, Policy 03-01 Part II). If a worker is suspected to have NIHL, a report can be filed to WCB. This involves completing Workers' noise induced hearing loss package.

Should the worker decide to file a claim with WCB it is their responsibility to complete and submit the applicable WCB hearing loss package forms:

- Workers' Employment Record-noise induced hearing loss (C131)
- Hearing Information Questionnaire (C042).

Post acute noise exposure will be reported to WCB and Staff Wellness within 24 hours of exposure and reporting will follow the same process as reporting an injury or illness.

## **13.0 Alberta Human Services**

NIHL is a notifiable disease under Section 6 of Alberta's Occupational Health and Safety Regulation (2009). The Occupational Health Physician, Staff Wellness will report any diagnosed NIHL to the Director of Medical Services, Alberta Human Services.

## **14.0 Confidentiality of Audiometric Data**

Audiometric data is confidential medical information and will only be shared with the worker, except in the event when a WCB compensable claim exists or notification to Alberta Government Employment, Immigration and Industry is required. Staff Wellness will maintain all audiometric testing records in a manner consistent with the principles of medical confidentiality.

Any release of medical information by Staff Wellness must be accompanied by a Release of Information form, that will be retained in the employee's medical file. Any requests from the employee to access their medical file will be forwarded to the Occupational Health Nurse, Staff Wellness for review.

## **15.0 Reporting**

Staff Wellness will report compliance with this program on an as needed basis.

Surveillance data will be gathered based on work areas and any abnormal audiograms. Trends will be reported to EH&S Consultant and the management team for the specific work area on an annual basis.

## **16.0 Evaluation**

Staff Wellness will conduct an annual evaluation of this program. Evaluation will include review of the overall program as well as the procedures that support the program. Auditing of audiometric testing, documentation and follow-up will be conducted for quality assurance.

## **17.0 Supplemental Documents**

EH&S Hearing Conservation Program