

## FACT SHEET



### WHAT IS N-IHL?

N-IHL is damaged hearing due to excessive exposure to loud sounds. It is caused by two things working together; the intensity of noise, and length of time a person is exposed to noise. Moderate exposure to potentially damaging sounds may cause temporary N-IHL. For example, after exposure to loud noise (at a concert or movie, etc.) your ears may hurt or ring, or you may become temporarily “deaf”. Repeated exposure to intense noise gradually produces permanent N-IHL. Common symptoms of N-IHL are tinnitus (ringing in the ears) and the inability to understand speech.

### CAUSES OF N-IHL

Noise-induced hearing loss can occur because of prolonged exposure to amplified music through personal stereos, music at school dances, rock concerts, fire crackers, or car races. The most common cause of N-IHL is an excessively noisy workplace. Professionals who are at risk include operators of heavy machinery such as construction, military, and farm workers, musicians, and other performers. Non-occupational sources of N-IHL include high-volume music, snowmobiles, ATV’s, airplanes, and home appliances. N-IHL is 99 per-cent preventable by using proper ear protection.

### WHAT ARE THE REGULATIONS AGAINST N-IHL?

Regulations in Canada guide environmental and occupational exposure. These legislations, which are controlled by a combination of federal, provincial, and municipal levels of government, focus on environmental concerns such as airport flight patterns. The exposure of the public seems to fall between the cracks when we look to the protection for bar patrons, youth dances, and public events. For example, regulations permit a noise level of 85 decibels for an eight-hour work day. However, they do not ensure that the public is notified of potential noise exposure or that hearing protection is provided or made available for sale.

### HOW COMMON IS N-IHL?

The incidence and prevalence of N-IHL is not known specifically in Canada but the American statistics of self-reported hearing differences indicate that the prevalence of hearing loss is a primary community health issue for persons over 65 and that incidence in young persons is increasing. Approximately 23 per cent of people who reported hearing loss said it was due to noise exposure. World wide, there are 28 million people affected by hearing loss.

### GROWING CONCERN

Audiologists are discovering that increasing numbers of young people are experiencing hearing loss of the type generally associated with adults who have spend many years working in traditionally noisy occupations. By age 17, the hearing acuity of males may be 3 to 5 dB worse than females. It is suggested that boys may be more likely to engage in noisy leisure activities than girls and that rural youth may have a greater prevalence of N-IHL than urban youth.

The results of a 1996 Canadian study, involving university students who used walkmans on a regular basis and those who did not use them frequently, support the idea that prolonged use of walkmans can cause a deterioration in hearing sensitivity, at least in the extended high frequencies. The results emphasize the need for early identification of noise-induced hearing loss through the monitoring of hearing loss for the extended high frequencies in frequent walkman users.

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## **WHAT IS THE IMPACT OF N-IHL?**

N-IHL potentially disables an individual socially and impacts upon immediate family members and significant others. Individuals may suffer irritation, stress, and negative self-image. The cause of N-IHL may be most often occupational, but the effects are felt far beyond the workplace.

## **PREVENTION THROUGH EDUCATION**

The key to prevention is education on the hazards of excessive noise, through literature to be read at home or as a part of a school program so families learn to :

- lessen the intensity of noise by avoiding noise, where possible, turning down the volume on the radio or television), and/or by using hearing protectors
- choose activities that do not include hazardous noise levels
- use hearing protection when exposed to noise from snowmobiles, sea-doo's, motorcycles, racing cars or power tools
- request quieter music at dances, bars and pubs
- properly use personal stereos with earphones
- properly adjust home and car amplified music

## **COSTS OF TREATING CHILDREN WITH HEARING LOSS**

The costs associated with treating children, throughout their lifetimes, who experience a hearing loss, range from \$6,300 to \$126,000 per child (estimating two visits per year until the age of 70). These costs will vary and include the initial audiological assessment, an assessment by an ear specialist every five years, the cost of fitting a hearing aid (on average \$20,000 over a lifetime), and at least \$5,000 annually in speech-language pathology services (this is for a moderate to severe high frequency hearing loss). However, it is difficult to put a price tag on the costs associated in terms of decreased quality of life and educational experience and loss in employment opportunities.

## **EFFECTS OF EXCESSIVE NOISE**

The potential effects of excessive noise, aside from a hearing loss, also include balance problems, and increase in heart rate, blood pressure or respiration, tension, anxiety, tinnitus (or ringing in the ears), nausea, sleep disturbance, irritability, shallow breathing, and headaches.

## **99% OF NOISE-INDUCED HEARING LOSS CAN BE PREVENTED**

*\*\* This information was compiled from sources including The American Speech-Language Hearing Association, Donald Henderson PhD, and Hearing Conservation Education For Youth, Donna Comeau, 1996.*

**Early detection is vital! If you suspect a problem consult your yellow pages or visit our website to find a speech-language pathologist or audiologist near you.**

[www.caslpa.ca](http://www.caslpa.ca)