



At a glance:

Why does workplace noise matter?

Constant exposure at work to the noise from tools and machinery can put workers at risk of permanent hearing damage. Hearing loss can also result from sudden, loud noises, heavy loads being dropped or heavy hammering. These types of noises are referred to as 'impact' noises and if loud enough, can cause immediate, permanent damage.

Hazardous noise can destroy the ability to hear clearly and can also make it more difficult to hear sounds necessary for working safely, such as instructions or warning signals.

Managing the risks related to noise will assist in:

- protecting workers from hearing loss and disabling tinnitus
- improving the conditions for communication and hearing warning sounds
- creating a less stressful and more productive work environment.

- Noise-induced hearing loss is preventable.
- One in six New Zealanders is affected by hearing loss.
- Exposure to noise is a known cause of **ONE THIRD** of hearing loss.
- One of the main consequences of hearing loss is a reduced capacity to communicate.
- Damage to hearing is cumulative. The louder the sound, the less time you can safely listen to it.
- Decibels (dB) are used to measure sound level. A small increase in decibels dramatically increases sound pressure. An 80dB sound has **TEN TIMES** more sound pressure than a 70dB sound, and 100 times more pressure than a 60dB sound.

EXAMPLE OF NOISE LEVELS

SOUND LEVEL (dBA)	EXAMPLE OF NOISE SOURCES	EFFECT ON HEARING
150	Explosion	Instantaneous damage
140	Rifle shot	Damage over a brief period
130	Jet taking off	Threshold of pain
120	Power or chain saw Rock drill	Damage after 30 seconds
110	Jackhammer Helicopter	Damage after two minutes
100	Sheet metal workshop Pneumatic drill Grinding metal Noisy lawn mower	Damage after 15 minutes
90	Heavy truck Motorcycle Front-end loader	Damage after two hours
80	Industrial sewing machine	Below this level, the likelihood of permanent hearing damage is minimal

Other health effects of workplace noise

Workplace noise at levels that do not damage hearing can have other adverse health effects. This can arise when noise chronically interferes with concentration and communication. Persistent noise stress can increase the risk of fatigue and cardiovascular disorders including high blood pressure and heart disease.



What is noise-induced hearing loss?

Hazardous noise affects the functioning of the inner ear, which may cause temporary hearing loss. After a period of time away from noise, hearing may be restored. With further exposure to hazardous noise, the ear will gradually lose its ability to recover and the hearing loss will become permanent.

Permanent hearing loss can also occur suddenly if a person is exposed to very loud impact or explosive sounds. This type of damage is known as acoustic trauma.

Permanent hearing loss results from the destruction of hair cells in the inner ear. These cells cannot be replaced or repaired by any presently known medical treatments or technology.

Everyday noise levels

Conversation in a bar	60dB
Vacuum cleaner at 1m	70dB
Garbage disposal	80dB
Propeller plane flyover at 1000 ft	88dB
Food blender	88dB
Car wash at 5m	89dB

For further information see:

www.zeroharm.org.nz

www.nfd.org.nz

www.worksafe.govt.nz

www.safeworkaustralia.gov.au

www.tinnitustunes.com