

**CONTACT US TO PROVIDE THE FOLLOWING SERVICES FOR YOUR BUSINESS:**

- EHS Risk Assessments
- Occupational Hygiene Surveys
- Ergonomics Surveys
- EHS Management System Development and Implementation
- Environmental Monitoring
- Identification of EHS Legal Requirements and Compliance Audits
- Construction EHS Services
- Construction H&S Files
- Internal Auditor Training
- General EHS Training



Department of Employment and Labour Approved Inspection Authority (OH0049-CI-09)



OH0049



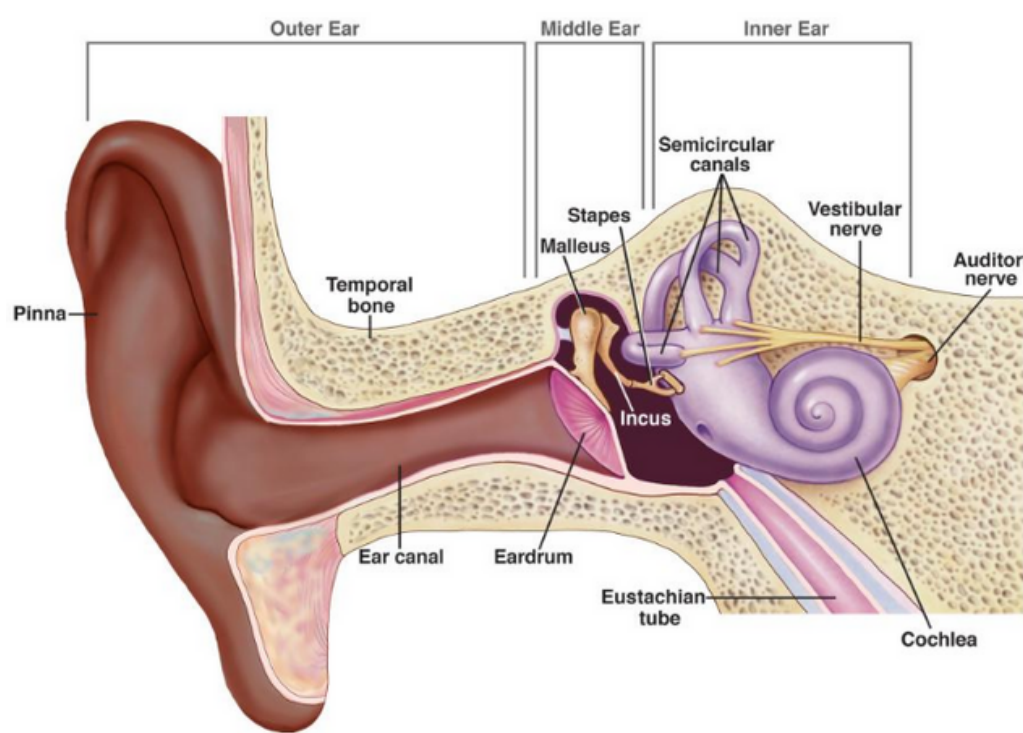
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# NOISE INDUCED HEARING LOSS (NIHL)

Every day, we experience sound in our environment. Normally, these sounds are at safe levels that don't damage our hearing. However sounds that are too loud can damage sensitive structures in the cochlea, causing hearing loss.

## HOW WE 'EAR

### 1 sound waves travel to the inner ear

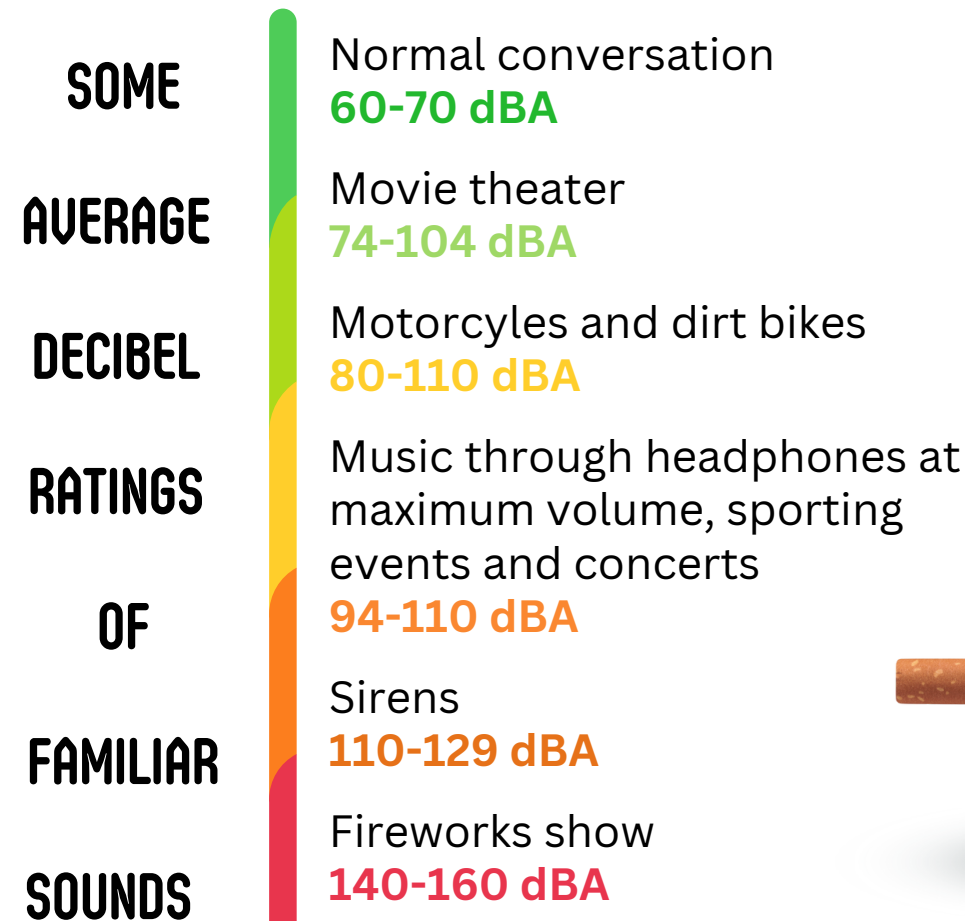


**DID YOU KNOW?** Noise is one of the most underestimated hazards in the workplace and can also cause stress and interfere with concentration.

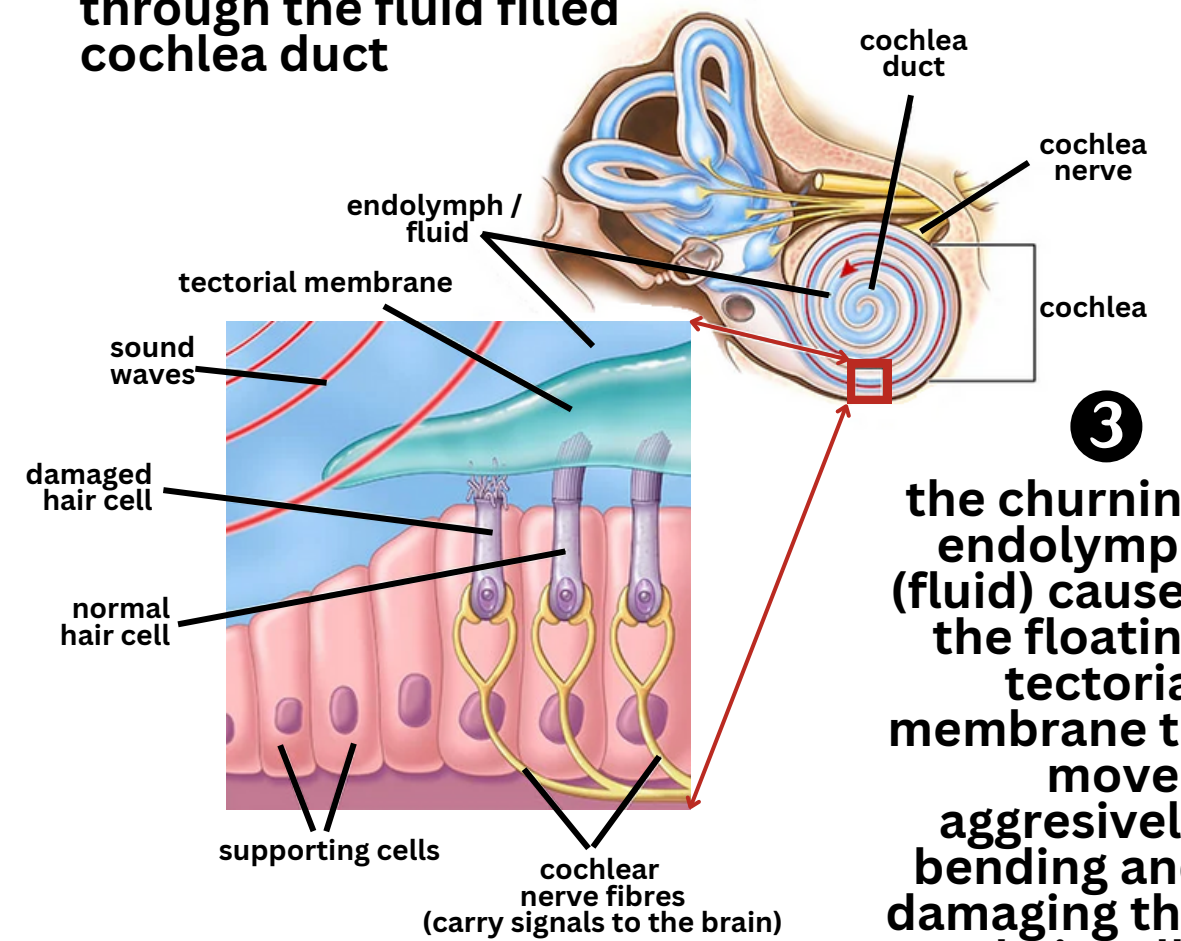
**DID YOU KNOW?** To date, NIHL is the only type of hearing loss that is completely preventable.

**DID YOU KNOW?** Unlike bird and amphibian hair cells, human hair cells don't grow back. They are gone for good!

Any sounds at or below 70 A-weighted decibels (dBA), even after long exposure, are unlikely to cause hearing loss. However, long or repeated exposure to sounds at or above 85 dBA can cause hearing loss.



### 2 the loud noise waves spiral through the fluid filled cochlea duct



### 3 the churning endolymph (fluid) causes the floating tectorial membrane to move - aggressively bending and damaging the hair cells

## NOISE MAY BE A PROBLEM IN YOUR WORKPLACE IF YOU:

- ✗ Hear ringing or humming in your ears when you leave work.
- ✗ Have to shout to be heard by a co-worker an arm's length away.
- ✗ Experience temporary hearing loss when leaving work.

Impulse or continuous loud noise can cause temporary hearing loss. Although hearing may return 16 to 48 hours after exposure, recent research suggests it may cause residual, long-term damage.

## 'EARS THE LATEST RESEARCH

Ototoxic substances (chemicals or medicine that causes problems with a person's hearing or balance) can interfere with ear function and may therefore be a risk factor for noise induced hearing loss.

Smoking is considered to worsen the function of the cochlea, as it has a direct ototoxic effect which triggers cochlear ischemia (impaired blood flow). A person who smokes and is in an environment with a high noise frequency has a three times greater risk of experiencing hearing loss.



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**THE REDUCTION OF  
DRINKING  
WATER  
QUALITY  
DURING A DROUGHT**

Most drinking water comes from surface water sources such as dams and rivers. They often contain high levels of organic materials, decomposed by microorganisms, in or on the soil. These microorganisms and soil are carried into the water distribution systems when dam levels decline and impact the health of the affected population.

To protect drinking water from disease-causing organisms, municipal authorities add disinfectants to public water supplies - chlorine being the most widely used chemical for this purpose.

This important and necessary process of disinfection has significantly reduced the incidence of waterborne illness, by killing disease-carrying microorganisms. However, unknown to most people, this process also creates other, more potent, toxins that are difficult to remove. Trihalomethanes or THMs are chemicals that can form when organic material in treated water reacts with chlorine.

**The concentration of THMs in drinking water varies according to the following factors:**

- level of organic material in the water
- amount of chlorine required to treat the water
- temperature of the water that is being treated

**Routes of entry to the body:**

- Ingestion (drinking contaminated tap water)
- Inhalation (evaporated THMs in steam, eg. showering)
- Absorption (through the skin eg. swimming pool)



**Steps to reduce exposure to THMs?** 

- Boil water for one minute and allow it to cool before drinking.
- Store tap water in the fridge for 24 hours in an open jug.
- Use an activated carbon filter to remove the THMs. It is important to note that filters should be properly maintained and changed often, as they can become sources of bacterial contamination.

 **Safetech can assist by conducting drinking water sampling. Contact us for a quote.**

**LEGAL**  
  
**UPDATE**

**DO MHI REGULATIONS APPLY TO YOUR SITE?** 

The Department of Employment and Labour has issued  
Government Notice R2989 in Government Gazette 47970, dated 31 January 2023

**Promulgation of Major Hazard Installation Regulations, 2022**

 **LOOKING FOR A LEGAL REGISTER?** 



**SHE  
Legal**  
Safety, Health & Environment

Safetech recommends that you contact SHE Legal for the provision of a Safety, Health and Environmental Legal Register with a Monthly Updating Service.

SHE Legal's main area of expertise is in assisting clients to achieve legal compliance as required by the ISO 14001, ISO 45001, and ISO 50001 standards. Their user-friendly systems are easy to navigate and are available online.

For more information, please contact SHE Legal at [info@shelegal.co.za](mailto:info@shelegal.co.za) or visit their website at [www.shelegal.co.za](http://www.shelegal.co.za)