

# NOISE PREVENTION

The purpose of this presentation is to provide training for personnel on the management of noise in the workplace.



# WHAT IS A HAZARDOUS NOISE

A hazardous noise in relation to hearing loss means noise that exceeds the exposure standards for noise in the workplace.

- Excessive exposure of hearing loss or excessive noise levels over a long period of time damage your hearing.
- This may happen so gradually and painlessly that you may not notice any prior deterioration from one day to the next.
- Hazardous noise in the workplace presents a real risk



**SAMPLE**

**SUBSCRIBE NOW AND GET FULL ACCESS**

# LEGISLATION

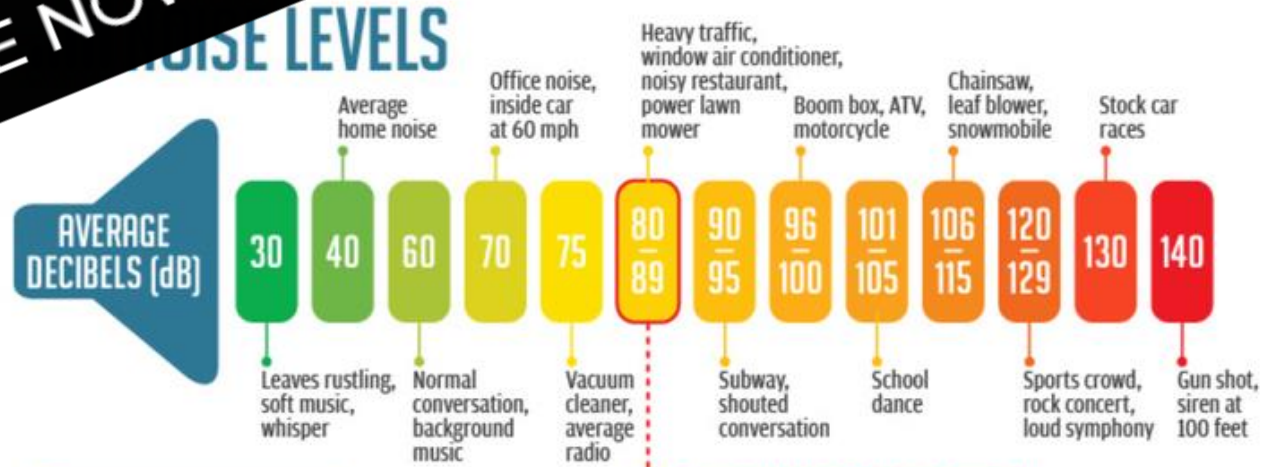
## What the law says



Noise exposure at the workplace must not exceed the exposure standards for noise. That means that risks to hearing associated with noise must be managed.

**SAMPLE**

**SUBSCRIBE NOW AND GET FULL ACCESS**



# TEMPORARY EFFECTS

The temporary effects from excessive noise exposure are:

- Ringing, buzzing, or roaring sounds in the ears; and/or muffled hearing

**SAMPLE**

SUBSCRIBE NOW AND GET FULL ACCESS



# WHAT ARE THE PERMANENT EFFECTS FROM EXCESSIVE NOISE?

- Constant ringing in the ears (tinnitus)
- Trouble hearing high frequency sounds such as the phone ringing.
- Speech consonants such as 'P', 'K' and 'C' may be hard to hear.
- You may have to turn the TV or radio up to hear it clearly.



**SAMPLE**

**SUBSCRIBE NOW AND GET FULL ACCESS**

SAY WHAT?



# NOISE EFFECTS



The outer ear funnels sound along the ear canal to the eardrum.

Sound waves  
Outer Ear



The middle ear contains three small bones called ossicles. When sound waves strike the eardrum, the ossicles conduct the vibrations to the cochlea in the inner ear.

Healthy inner ear hair cells are the key to good hearing



Hair cells within the inner ear respond to vibrations by generating nerve impulses. The brain interprets these impulses as sound.

**SAMPLE**  
SUBSCRIBE NOW AND GET FULL ACCESS

# HAIR CELL DAMAGE

If the hair cells deep down inside the ear become damaged, they do not heal.

This injury is permanent.

**SAMPLE**

SUBSCRIBE NOW AND GET FULL ACCESS



# HOW MUCH NOISE?

Tests have indicated that a daily noise dose for an 8-hour working day is 85 decibels or 85 dBA).

For every addition of three (3) decibels, the time that you are exposed unprotected is halved.





# NOISE LEVELS & TIME EXPOSURES

Equivalent Noise Exposures LAeq,8h = 85 db(A)	
Noise Level dB(A)	Exposure Time (Unprotected)
80	10 hours
82	5 hours
<b>85</b>	<b>8 hours</b>
88	4 hours
91	2 hours
94	1 hour
100	15 minutes
103	7.5 minutes
106	3.8 minutes
109	1.9 minutes
112	57 seconds
115	28.8 seconds
118	14.4 seconds
121	7.2 seconds
124	3.6 seconds
127	1.8 seconds

**SAMPLE**

**SUBSCRIBE NOW AND GET FULL ACCESS**



# NOISE LEVELS

- Conversation
- Old Lawn Mower
- Belt Sander
- Angle Grinder
- Walk-behind Backpack Blower
- Quick Cut Lawn Mower
- Road Construction
- Chainsaw
- Shotgun
- Jet Engine

60 dB(A)

90 dB(A)

95 dB(A)

100 dB(A)

105 dB(A)

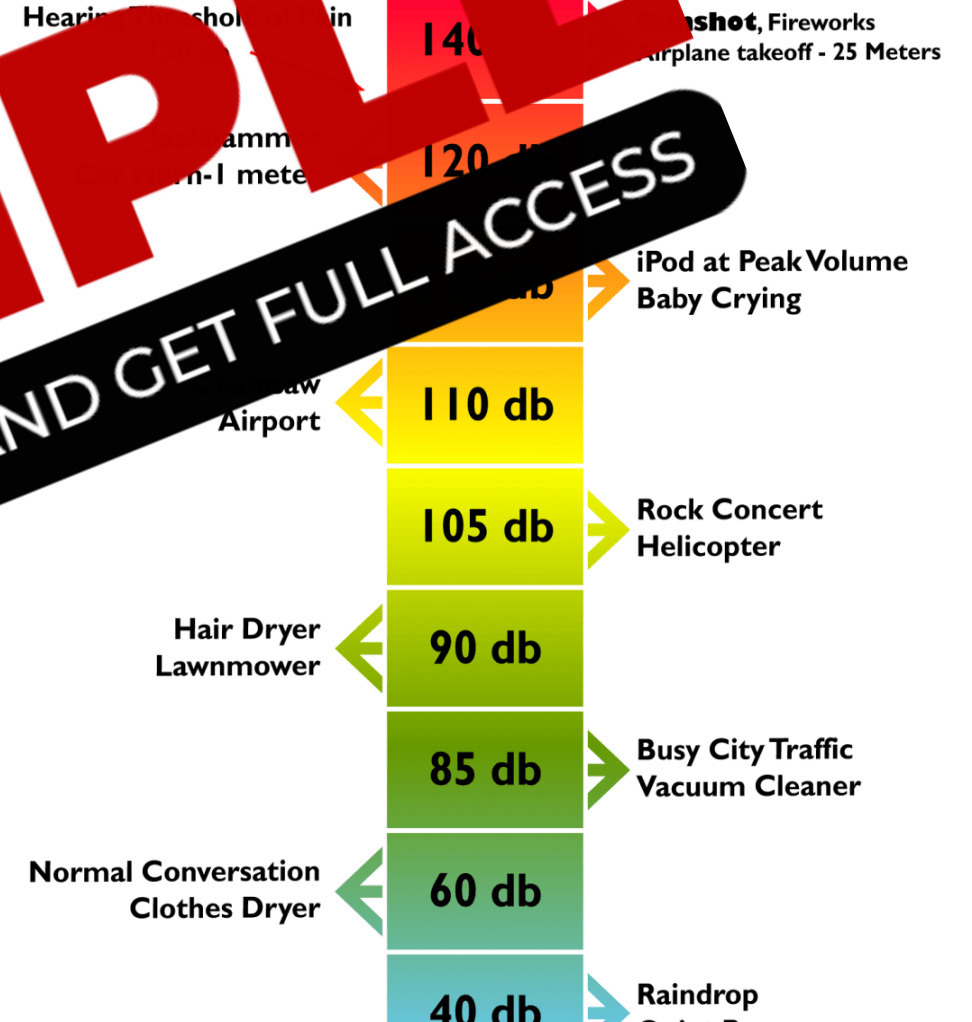
110 dB(A)

112 dB(A)

160 dB(A)

180 dB(A)

## Some Common Decibel Levels



**SAMPLE**  
 SUBSCRIBE NOW AND GET FULL ACCESS



# ASSESSING NOISE

Noise assessments in the workplace should be carried out if you need to raise your voice to talk to someone approximately one metre away.

Noise assessments measure the noise levels in your workplace.

**SAMPLE**

SUBSCRIBE NOW AND GET FULL ACCESS



# NOISE CONTROLS

If noise is a hazard at the workplace!

- Identify if noise is excessive or a problem at work.
- Consult with workers.
- Assess the risks to health and safety from noise exposure.
- Develop a hearing conservation program.
- Implement noise control measures.
- Provide workers with training and information about noise.
- If warranted, provide audiometric testing for workers.

**SAMPLE**

SUBSCRIBE NOW AND GET FULL ACCESS



# HEARING PROTECTION

Hearing protectors can be very effective but only if they fit properly and are worn and cared for correctly.

A significant noise reduction of 15-24 decibels can be achieved if the correct hearing protector is selected.

There are two different types of hearing protection.

Ears

Ear-muffs



**SAMPLE**  
SUBSCRIBE NOW AND GET FULL ACCESS

# HOW TO FIT EAR PLUGS

- Slowly roll and compress the foam plug into a very thin cylinder.
- While compressed, insert the plug in the ear canal.
- Fitting is easier if you reach up with the hand on the same side as the ear you are fitting. Pull the ear outwards and upwards during insertion.

**SAMPLE**

**SUBSCRIBE NOW AND GET FULL ACCESS**

Keep the ear canal free from dirt, and material that can irritate the ear canal.

Discard the plugs after use if they harden or do not re-



# HOW TO FIT EARMUFFS

- Muffs must fully enclose the ears to seal against the head.
- Adjust the headband, so the muffs do not exert uneven pressure around the ears.
- Pull the hair back and away from behind the ear cushions.
- Don't store beard hair or wear jewelry under the cushions.

**SAMPLE**

**SUBSCRIBE NOW AND GET FULL ACCESS**



# WHAT ARE MY OBLIGATIONS?

- Follow the instructions given to protect you from the risks associated with a grade of noise exposure.
- Use hearing protection
- Maintain your hearing protection (PPE) in good condition
- Follow all advisory signage at the work

**SAMPLE**

**SUBSCRIBE NOW AND GET FULL ACCESS**





# IN SUMMARY



**PROTECT YOUR  
HEARING OR  
END UP DEAF!**