

### **Toolbox Talk**

### Noise

Noise is unwanted sound that can effect job performance, safety, and health.

What health effects can be incurred from excessive noise?

- Tinnitus a hum, whine, whistle or rushing noise in the ears. This condition makes it difficult to sleep
- Temporary Hearing loss Often after exposure to loud noise for short periods i.e. one day, gradual recovery will occur once isolated from the noise source.
- Permanent & Irreversible Hearing Loss

#### How does noise damage ears?

Tiny hair-like cells in your inner ear are stimulated by sounds, which then send messages to your brain.

If exposed to too much noise for too long the hair-like cells are damaged. While at first, given enough quiet, the cells may recover; repeated noise will lead to permanent damage. Often damage occurs gradually over a number of years and remains unnoticed until it is too late. The damaged cells can no longer send the messages to the brain and hearing is lost.

Extremely loud noises can cause immediate lasting damage. The sudden burst of energy in noises such as hammering or gunshots can cause this type of damage.

#### What noise is unreasonable?

Noise is measured in a scale known as a decibel (dB) Unacceptable noise levels are;

- A daily noise dose of 85dB(A) over 8hours
- A peak noise level of 140dB(C)

Noise levels for common sources include;

- Angle Grinding 120dB
- Welding 90dB
- Heavy Traffic 80dB
- Normal conversation 60dB
- Whispering 30dB

The impact of noise is due to both the loudness of noise and the length of time a person is exposed to that noise.

As the noise level increases the allowed exposure time is reduced i.e. the length of time a worker is able to work is reduced by half for every 3 dB(A) increase in noise level

e.g. whilst 85dB(A) is the limit over an 8 hour period 88dB(A) is the limit over 4 hours.

See chart on next page for further detail on this allowance.

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| Activity | Activity Description<br>and Noise Level  | Activity | Activity Description and Noise Level    |
|----------|--|----------|---|
|          | Normal Conversation 60 decibels          |          | Operating a Grinder  97 decibels        |
|          | Max. Time of Exposure<br>More than a day |          | Max. Time of Exposure  30 Minutes       |
|          | Driving a Vehicle 70 decibels            |          | At a Rock Concert  100 decibels         |
|          | Max. Time of Exposure<br>More than a day |          | Max. Time of Exposure  15 Minutes       |
| SLOW     | Standing on a Busy Road 80 decibels      |          | Near a Crane 102 decibels               |
|          | Max. Time of Exposure 24 Hours           |          | Max. Time of Exposure  10 Minutes       |
|          | Inside a Noisy Restaurant 84 decibels    |          | Operating a Jackhammer 105 decibels     |
|          | Max. Time of Exposure  10 Hours          |          | Max. Time of Exposure <b>5 Minutes</b>  |
|          | Operating a Welder  85 decibels          |          | Operating a Bulldozer  107 decibels     |
|          | Max. Time of Exposure  8 Hours           |          | Max. Time of Exposure  3 Minutes        |
|          | Operating a Lawnmower 91 decibels        |          | Using Explosive Power Tool 120 decibels |
|          | Max. Time of Exposure  2 Hours           |          | Max. Time of Exposure  10 Seconds       |
|          | Operating a Power Tool  94 decibels      |          | Near Diamond Rock Saw  121 decibels     |
|          | Max. Time of Exposure  1 Hour            |          | Max. Time of Exposure <b>5 Seconds</b>  |

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## **Toolbox Talk**

Date:

| Name | Signature |
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