

# Toolbox Talk

## Hand-Arm Vibration



### What is Hand-Arm Vibration?

- Vibration transmitted into hands and arms when using handheld work equipment or work pieces which vibrate.
- It can cause Hand-arm Vibration Syndrome (HAVS), which affects blood vessels, muscles, joints of the hand, wrist and arm. It includes vibration white finger.
- It can cause Carpal Tunnel Syndrome (CTS), a nerve disorder which may involve pain, tingling, numbness and weakness of the hand.

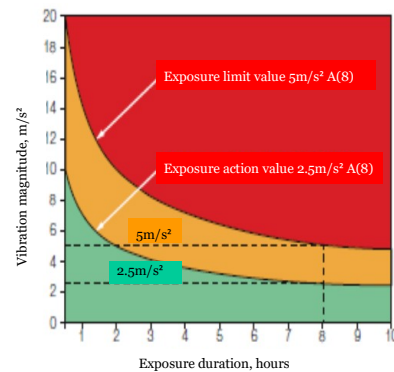
### Control of Vibration at Work Regulation 2005 (the Vibration Regulations):

- In place to ensure that risks from vibration are controlled.
- Requires that information, instruction and training is provided.
- Sets exposure limits, Exposure Action Limit (EAL), when action must be taken and Exposure Limit Value (ELV), which must not be exceeded.
- Places a duty on manufacturers and suppliers to provide vibration emissions data.
- Requires the provision of health surveillance if EAL is exceeded.

### Control Measures:

- Control measures are required when the EAL is exceeded.
- The control is to limit the amount of time spent using vibration equipment to ensure the ELV is not reached.
- Padded gloves can reduce the vibration, but do not provide protection.

### Daily Vibration Exposure Level - A (8)



The relationship between vibration magnitude (level), exposure duration and the exposure action and limit values.

Look at the vibration magnitude on the left.

Consider the exposure duration along the bottom.

In the green, no control required.

In the orange, control is required.

In the red is not allowed.



### REMEMBER:

Limit the length of time spent using vibrating equipment.

Gloves reduce the vibration but **DO NOT** provide protection

# Toolbox Talk

## Hand-Arm Vibration, contd



### Examples of magnitude for power tools and equipment

Industry	Tool type	Vibration emission
General	Circular saw	3.5
General	Cordless drill/driver	2.5
General	Cordless percussion drill	14.6
General	Percussion drill	8.5 - 15
Construction	Breaker (light)	11.5
Construction	Breaker (medium)	10
Construction	Breaker (heavy)	6.5
Construction	Disc cutter (12") (Bricksaw)	2.4
Construction	Plate compactor	4.5
Construction	Roller vibrating (single drum)	5.5
Construction	Roller vibrating (22" petrol)	7.4
Construction	Roller vibrating (twin drum)	2.5
Construction	Vibrating poker (25mm)	5.6
Gardening/forestry	Brush cutter	5.5
Gardening/forestry	Chain saw	7
Gardening/forestry	Post hole borer (one man)	2.2
Gardening/forestry	Post hole borer (2 man)	8.4
Gardening/forestry	Power wheel barrow	5.8
Gardening/forestry	Rotovator (m/duty)	5.2
Gardening/forestry	Stump grinder (petrol)	10

The values have been taken from data supplied by A1 hire company. The values are for tools in good condition using sharp attachments. As the tools ages and attachments become blunt the vibration magnitude will increase.