

Best Practice Bulletin #4

Hand Arm Vibration

What is it?

Hand-arm vibration is vibration transmitted into workers' hands and arms. This can come from use of hand-held power tools (such as grinders or road breakers).

Why is it an issue?

Regular and frequent exposure to hand-arm vibration can lead to two forms of permanent ill health known as: Hand-arm vibration syndrome (HAVS); and Carpal tunnel syndrome. Damage to nerve and/or blood vessels in the hands and fingers leading to loss of strength, pain, inability to feel possibly permanently and can lead to the loss of fingers. Obviously this can be massively life changing to an individual and his family, his work colleagues and his employer. Working in cold and wet conditions can enhance the issue.

What the law says

- Eliminate hazards and reduce risks during design
- Make sure that risks from vibration are controlled;
- Provide information, instruction and training to employees on the risks and the actions being taken to control risk and provide suitable health surveillance.

What can be done to prevent it?

Clients

- Encourage the use of materials and methods that avoid manual vibration.

Designers

- Avoid finishes that encourage scabbling, plan construction work to minimise breakouts- i.e. plan pile cut-off lengths to avoid the necessity for cropping.
- Plan duct and cable layouts in advance, avoid methodologies that promote hand excavation.
- Can pre-casting elements save on site work and resultant vibrational issues?

- Listening to the contractor partners who are at the workplace with regards to the issues and new products.

Contractors

- Promote the usage of alternative methods that avoid vibration plant- i.e. power hose construction joints- no scabbling, or preferably use new material to face joints such as Expamet Hy-Rib to create a good joint with no extra work.
- Look at how work is planned to avoid the need for vibrational work and feedback early to the designer. Contractors are excellent at educating designers in new products that come on to the market which can bring real H&S (and financial?) benefits.
- Select good low vibrational plant and keep it well maintained.
- Undertake robust HAV assessments. Limited exposure time, use protective gloves, robust monitoring.
- Good workforce consultation and engagement can identify issues that HAC assessments can miss.
- Depending upon the activity a whole body vibration issue needs assessing, don't just think of the hands!!

Outputs

Early decision making during the design phase can do much to avoid the issue. Good cooperation and understanding between all the stakeholders can help avoid this hazard. Take advantage of new products and procedures that could hopefully avoid the issue and may even bring financial benefits. The sharing of information between all the parties on WEM will help us all in finding best practices.

