



## H & S Guidance - Hand-Arm Vibration

### INTRODUCTION

Hand-arm vibration syndrome (HAVS) is a widespread industrial disease affecting tens of thousands of workers. Its best known effect is vibration-induced white finger (VWF). Attacks are painful and can result in the loss of the ability to grip properly. Any vibrating tool or process which causes tingling or numbness after 5-10 minutes is suspect. Where people regularly work for prolonged periods with tools and processes likely to be hazardous, there is likely to be a risk of injury. Sometimes it is possible to assess the danger by measuring the vibration exposure, but this may often be difficult or impractical.



Examples of common tools and processes likely to create hazardous vibration include pedestal grinders and hand-held portable grinders, chain saws, brush cutters, hand-held or hand-fed circular saws, mowers and strimmers.

### PRECAUTIONS

1. Identify hazardous work.
2. Assess risks (may include measuring exposure levels or calculating them from vibration data provided by machine makers). A suggested action level of an A(8) of  $2.8 \text{ m/s}^2$  (a measure of vibration normalised to 8 hours) has been put forward.
3. Introduce a preventative programme where necessary incorporating:-
  - training and information
  - vibration control (substitution; low vibration tools; proper maintenance; grip reduction arrangements; training in grip minimisation techniques; proper selection of tools; avoidance of uninterrupted vibration exposure over long periods)
  - means of maintaining blood circulation (which reduces the risk of injury)
4. Provide appropriate health surveillance, where the risk assessment shows it to be necessary. The surveillance programme should enable symptoms to be assessed and appropriate information to be given to individuals.



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5. Purchasing considerations - under the Supply of Machinery (Safety) Regulations 1992 suppliers must provide information on vibration levels if hand-held or hand-guided machinery is likely to subject workers to vibration exceeding  $2.5 \text{ m/s}^2$  when the tool is operating NOT the A (8) vibration "dose" over the whole working day.

### **FURTHER ADVICE**

Booklet HS(G)88 contains further advice on hand-arm vibration, including its clinical effects, its measurement, advice on a purchasing strategy and a pro-forma health surveillance questionnaire.

Booklet HS(G)170 uses more than 50 case studies to show that vibration problems can be solved in many ways. It also provides a useful checklist for managers on approaching the problem of vibration, and advice on avoiding pitfalls when introducing controls.

### **CHECKLIST - HAND-ARM VIBRATION**

1. Do you use hand-held tools that may create a risk of hand-arm vibration syndrome? YES NO
2. Have you carried out a risk assessment for the use of such tools? YES NO
3. Where risks have been established have you introduced preventive programme comprising the following:-
  - training and information for employees? YES NO
  - means of vibration control? Means of maintaining blood circulation? YES NO
4. Where risk assessments show it to be necessary, have you provided appropriate health surveillance? YES NO
5. When purchasing hand-held or hand-guided machinery do you ask suppliers for information on vibration levels? YES NO



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### REFERENCES/FURTHER DETAILS

- \*1. Booklet HSG 88 - Hand-arm vibration. (HSE).ISBN 0 - 7176 - 0743 - 7
- \*2. Booklet HS (G) 170 - Vibration Solutions- Practical ways to reduce the risk of hand-arm vibration injury. (HSE) ISBN 07176 0954 5
- \*3. **Leaflet INDG 175 - 'Hand-arm vibration - Advice for employers'**.
- \*4. Leaflet INDG 126 – Health risks from vibration white finger- advice on vibration white finger for employees and the self employed. (HSE). ISBN 0 7176 1554 5.