

used for lengthy periods. As a very rough guide, continuous use of a rotary tool like a grinder, a sander or a polisher can cause exposure above the EAV in about 1 hour. Continuous use of a percussive tool like a road breaker can cause exposure above the EAV in about 15 minutes.

- Try to avoid the use of power tools wherever possible.
- Check that you are providing the best tool for the job in hand. Talk to the hire company to see what alternatives they have available.
- Keep tools sharp and well maintained. If you get a report from a user that a tool needs attention, then report it to the hire company.
- Make sure that all users are aware of the hazards which can arise from work with high vibration tools, and the simple precautions that they can take. Ask the hire company for more copies of this leaflet so that everyone can see it.
- Organise patterns of work where you can, to avoid lengthy and continuous use of high and medium vibration tools.
- Make facilities for rest periods in warm, dry shelter with hot drinks.
- Make sure that suitable gloves and warm clothing are available for anybody who would benefit from them.
- If a user reports signs of vibration white finger, move them away from work with high vibration tools if you can, and take steps to have them checked by an occupational health specialist or their own doctor.

FOR MORE INFORMATION

- Contact your hire company for more information about the right tool for the job, and vibration reduced tools.
- Contact the Health and Safety Executive or look on their website for more guidance on the law in the UK – www.hse.gov.uk/vibration/hav/index.htm
- In the republic of Ireland, call the Health and Safety Authority on (Dublin) 01 614 7000.

What is “Hand Arm Vibration”?

Hand-arm vibration is vibration transmitted into your hands and arms. It is mainly caused by use of handheld powered work equipment but also occurs when using hand guided equipment like plate compactors.

What is Hand Arm Vibration Syndrome?

Hand Arm Vibration Syndrome (HAVS) is also sometimes called “white finger”, “dead-hand”, or “dead finger”. The condition affects people who regularly use vibrating equipment, such as power tools.

Vibration from the equipment can damage blood vessels in the fingers, reducing the supply of blood. It can also damage nerves, leading to a loss of feeling in the fingers and hands, especially when they become cold. The muscles, bones may also become damaged.

Sufferers find it hard to move their fingers and lose their ability to grip things properly. Work with hand-held tools can become difficult. Picking up small items, such as nails and screws can be almost impossible. The condition can become very painful.

What is carpal tunnel syndrome?

Carpal tunnel syndrome is a nerve disorder which may involve pain, tingling, numbness and weakness in parts of the hand. It can be caused or made worse by exposure to vibration.

Typical Symptoms

At first, HAVS can cause a tingling sensation, or “pins and needles” in the fingers, maybe with some numbness. This will usually happen at the end of a day working with vibrating equipment.

As the condition gets worse, symptoms may be triggered by cold conditions, without using vibrating equipment. The fingers may become white and numb, initially just the fingertips, but the area can get larger if you continue to work with high vibration equipment. As blood circulation returns, the fingers may get a red flush and become painful.

As the condition progresses, pain, stiffness, and difficulty in handling small items can last for up to an hour, and be triggered by any exposure to mild cold, for example when washing the car, or fishing.



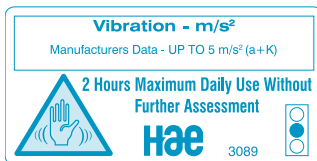
How to reduce the risk

The best approach to reducing the damaging effects of vibration is to reduce the need for use of power tools. Try to plan and mechanise the work wherever possible, so that the amount of power tool use is reduced, or better still eliminated altogether. Ask the Hire Company for advice on the most efficient and vibration free, or low vibration method to get the job done.

If you have to use power tools, be aware that some equipment produces more vibration than others. See if you can use another tool with lower vibration levels. Members of the HAE and the Construction Confederation have developed a simple indicator of the vibration risk from hand tools. The following stickers will be displayed on vibrating hand tools for your guidance.



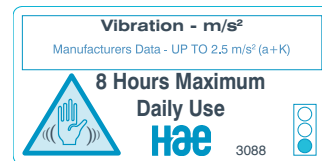
High vibration risk equipment could cause vibration injury even when used for a short time each day. If you regularly exceed 65 points (for example 3 or more days a week) your employer should refer you for health surveillance. Try to make sure you do not exceed 255 points in a single shift.



Before Starting Work...



Check to see if the Hire Company or manufacturer has fixed a label on the equipment, giving information about the levels of vibration to expect in normal use. If you have no information about vibration levels, then you should ask for information from the hire company. Be aware of the effect that vibration can have on your fingers and look out for symptoms.



Cold hands are more likely to be affected by vibration from tools, as the blood supply is already reduced. Gripping too tightly onto the tool can lead to more vibration being transmitted to your hands.

Poor blood circulation generally, due to lack of exercise, or smoking can also mean that some people are more likely to suffer vibration white finger.



REDUCING THE RISK

Before you start working

- See if you can do the work another way that does not use power tools.
- Decide which type of tool is the most suitable to do the job and then choose a low vibration version of this type of tool. Talk to the hire company about the job that you plan to do, to check if you have the best tool for the job.
- If you have to force the tool, the tool may cause more vibration, you may have to grip it tighter, and the job may take longer.
- Make sure that the tool is in good condition: for example, that the cutting edges are sharp, and that the handles are secure.
- In cold conditions, make sure that you are warm before you start work and that you will be able to keep warm and dry through the day. It is especially important to think about keeping your hands warm. Wearing gloves can help. Ask your supervisor or the hire company if you need gloves.

While you're working

- Keep warm – especially your hands but remember that keeping your body warm will also help to maintain blood supply to your fingers and hands.

- Check that the tool is not becoming blunt – this makes for more hard work and more vibration.
- Take short breaks regularly. Exercise hands and fingers to keep them warm and flexible.

At the end of the day:

- If you have any persistent tingling or numbness in fingers and hands – tell the supervisor. Show them this leaflet.
- If you are self-employed, consider seeing your doctor.
- If tools are worn, or need repair, arrange this now with the hire company or your supervisor so that you have proper equipment ready for the next morning.
- If you can, store the tools so that the handles will not get too cold overnight. Hired equipment should always be locked away to keep it safe from theft.

GENERALLY

- Cutting down on smoking can help improve poor blood circulation – even if it is only just before work and during work.
- Do not ignore the early signs of HAVS – it can become a serious condition which can affect your capacity for work, your leisure time, and your quality of life.

IF YOU ARE THE EMPLOYER, OR YOU ARE SELF – EMPLOYED

- The law requires a programme of preventive measures and health surveillance when workers' exposure regularly exceeds 2.5m/s² A(8) or 100 points. This is known as the Exposure Action Value (EAV). This will apply to the use of most tools if they are regularly