

Everyday Safety

Tailgate Talks

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Hand and Arm Vibration

You may think that the tingling, pain or numbness you feel when you use vibrating tools is just part of your job, but vibrating tools (like drills, jackhammers, grinders, and chainsaws) can cause health problems so serious that you could be forced to leave your trade. Millions of U.S. workers use vibrating tools and more than half of them will get some kind of injury.



Whether or not you get injured partly depends on:

- The amount of vibration the tool produces (acceleration level).
- How long you use the tool each day.
- How many total hours, months, and years you use vibrating tools.
- The way you hold and use these tools.

Some workers may have symptoms just a few months after they start using vibrating tools, but others may not have any trouble for a long time. It's important to know that once you fully develop hand-arm vibration syndrome (HAVS), it may be too late to reverse it. You may never fully recover full use of your fingers. **The only cure is prevention.**

Vibration from tools can damage the blood vessels in your hands and fingers. The reduced blood supply can then harm the skin, nerves, and muscles. You lose feeling in your hands and fingers and can't control them. This is called hand-arm vibration syndrome (HAVS), and is also known as white finger, dead finger, or Raynaud's Syndrome. It's very important to watch for early symptoms and report them.

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Signs to watch for:

- Tingling fingers.
- Fingertips turn white or blue.
- Trouble picking up small objects.
- Numbness.
- Clumsiness with hands.
- Reduced sense of heat, cold and pain in hands.
- Trouble buttoning and zipping clothes.

Your chance of getting HAVS goes up if you're exposed to vibration combined with other risk factors that also cut down the blood supply.

Reducing your exposure to vibration:

- The best solution is to do the work with a non-vibrating tool instead of a vibrating one if you can. For example, sometimes you can mill or machine a part instead of using a grinder.
- If you do use a vibrating tool, use one that has anti-vibration features built in whenever possible. Some new designs can reduce tool vibration over 50%. But tool suppliers should be asked for real evidence that their equipment reduces vibration.
- Vibration is reduced when tools are well maintained. Tools that are worn, blunt, or misaligned vibrate more. Immediately report any tool that is functioning poorly.

Ways to reduce exposure to vibration:

- READ AND UNDERSTAND THE OWNER'S MANUAL FOR EQUIPMENT.
- Limit the amount of time you use vibrating tools (both hours per day and days per week) wherever possible.
- Take regular breaks when working with a vibrating tool.
- Alternate work with vibrating and non-vibrating tools.
- Let the tool do the work. Keep your grip as loose as possible while still keeping control of the tool. A tight grip restricts blood flow, and also allows more vibration to pass from the tool to the body. Don't use full throttle unless you need to.

Hanover Testing Labs



Action Item:

No special medical exams are presently required by law, but it's a good idea for anyone exposed to hand-arm vibration on a regular basis to have an annual exam for signs of HAVS. You should be examined by a doctor with special training in occupational health who will know exactly what to look for. Also, you should inform your employer and request a medical evaluation if you experience symptoms of HAVS (such as tingling or numbness).

Resources and References:

World Health Organization Teaching Materials on Occupational Exposure to Vibration from Hand-Held Tools

https://www.who.int/occupational_health/pwh_guidance_no.10_teaching_materials.pdf

CDC National Institute for Occupational Safety and Health (NIOSH) Bulletin on Vibration Syndrome

<https://www.cdc.gov/niosh/docs/83-110/default.html>

Date: ____ / ____ / ____

**“Hand and Arm Vibration”
Sign In Sheet:**

Name:

Signature:
