Vibration White Finger Disease

OCCUPATIONAL HEALTH AND SAFETY
PHYSICAL HAZARD

VIBRATION WHITE FINGER DISEASE

Have you ever noticed that your finger-tips turn white when you are out in the cold in the winter? Did the condition start with numbness and tingling? Did the whitening spread to include all your fingers and your palm?

If you are a woman, the condition was likely inherited. This condition, known as primary Raynaud's phenomenon, is five times more prevalent in women than in men. If you are a man, however, you should look to other possible causes both work related and non-work related which are called secondary Raynaud's Phenomenon.

Non-work causes such as various skin diseases can cause secondary Raynaud's Phenomenon. Exposure to vinyl chloride fumes at work is another cause. The major cause at work, however, is vibration. This particular work-related condition is now better known as Vibration White Finger Disease (VWFD).

Cause and Symptoms of VWFD

Vibration White Finger Disease is caused by vibrating hand-held machinery. CAW members who work with jack-leg drills in mines, chippers and grinders in foundries, machine shops and assembly plants, and chain saws in the woods industry are all in jobs where they will likely develop this condition if they stay in the job long enough, (6 months to 5 years on average depending on the job).

Raynaud's Phenomenon, including Vibration White Finger Disease, is a condition in which the arteries are adversely affected so that they cut off the blood supply to the fingers. Exactly how the various causes, including vibration, harm the arteries is not known. Because of this, after a certain stage there is no cure.

Raynaud's Phenomenon is classified in stages beginning with intermittent tingling and numbness. Stage one features the whitening of one or more finger tips. Stage two sees this whitening accompanied by numbness usually during winter months only. In later stages three or four, the whitening and numbness increases occurring in summer and winter. Eventually the worker will have to change jobs due to the severity of the condition.
**Condition Gets Worse**

If workers are exposed to vibration beyond stage two the condition will not get better even if the worker leaves the job, but it will not get any worse. If workers younger than 40 years of age leave the vibration-associated job at or before Stage 2, the condition will usually disappear after a few months. This is not the case for older workers. Once established, VWFD will get progressively worse as workers continue to be exposed to more vibration.

There is no long-term surgical or drug cure for VWFD. Some surgeons thought they had a cure but it has been learned that the condition returned the same or worse than before 3 to 12 months after surgery. Because there is no cure, it is very important that the disease is prevented.

Some measures such as using a looser grip on some machinery and using thick gloves can prevent or retard the development of VWFD. Redesigning equipment so that hand-held machinery is instead mounted on pedestals is appropriate in some circumstances. Job rotation so that workers are exposed to less vibration is another possibility. The best solution, however, is to ensure that machinery is not allowed into the workplace unless it has been designed with sufficient vibration dampening so that VWFD will not occur.

**International Standard**

There is as yet no international standard limiting the amount of vibration in the equipment workers must use. Academics and engineers have deliberated on these issues without reaching an agreement on the appropriate standards.

It is about time Canada and the Canadian provinces took some leadership on occupational health issues rather than waiting for other countries such as the U.S. to issue standards first. We should implement the vibration standard proposed by the German-based International Organization for Standardization. Our union is lobbied with the various government agencies to ensure this comes about.