

### What is hand-arm vibration?

Hand-arm vibration is vibration transmitted from work processes into workers' hands and arms. It can be caused by operating hand-held power tools, such as road breakers, and hand-guided equipment, such as chainsaws, or by holding materials being processed by machines, such as pedestal grinders.

### Types of tools and equipment that can cause ill health from vibration?

There are hundreds of different types of hand-held power tools and equipment which can cause ill health from vibration. Some of the more common ones are:

- Chainsaws;
- Concrete breakers/road breakers;
- Hammer drills;
- Hand-held grinder
- Power hammers and chisels;
- Powered lawn mowers;
- Powered sanders;
- Scabblers;

### Hand held Vibration Equipment

Traditionally Roads Service would have relied on jack hammers and vibration plates for bitmac patching repairs but have moved on to planers and velocity patchers to reduce the impacts of vibration.



### What are the early symptoms?

Identifying signs and symptoms at an early stage is important. It will allow you, as the employer, to take action to prevent the health effects from becoming serious for your employee. The symptoms include any combination of:

- Tingling and numbness in the fingers;
- Not being able to feel things properly;
- Loss of strength in the hands;
- Fingers going white (blanching) and becoming red and painful on recovery (particularly in the cold and wet).

### White Finger



### Planers/skid steers

Vastly reduces the need for cutting out defects and reduces the exposure times when dealing with large repairs



### What Roads Service is doing:

Roads Service has a policy in place to reduce the exposure to vibration and the key actions are:

- Purchase and hire plant that doesn't expose the operator to a limit value of greater than 5m/s<sup>2</sup>
- Ensure regular maintenance schedules are in place and operatives carry out daily checks.
- Provide awareness training to new entrants and provide tool box talks
- Health surveillance programmes are in place through OHS

### Velocity Patcher

No cutting out or use of hand held vibratory equipment is required when carrying out road repairs

