

Nail guns

Explain dangers

Nail guns are the most common source of struck-by injuries in Ontario's homebuilding sector, accounting for close to 100 lost-time injuries (LTIs) each year.

Nail guns are very powerful and very dangerous if not used properly. They have the capacity to fire several nails per second.

Two types of nail guns commonly used on construction sites are:

1. **Pneumatic (compressed air)**
2. **Powder-actuated (explosive cartridge).**

Puncture wounds are the most common type of injury, often caused because the bump or trigger safety was disabled.

While puncture wounds to the extremities such as hands and feet are the most common, puncture wounds to places like the head or neck can cause more severe injuries and result in death.

Identify controls

Nail gun safety can be increased if you know the difference between trigger types.

- **Contact triggers** allow the gun to fire any time the trigger is held down and the nose is depressed against a surface.
- **Sequential triggers** only fire when the nose is depressed against a surface before squeezing the trigger. To fire a second nail you must release and press the trigger and/or release and depress the nose.

Sequential-trip triggers are much safer than contact-trip triggers, which can fire accidentally if the nail gun recoils or the operator bumps against a surface or co-worker.

Studies show that using sequential-trip triggers can cut injury rates in half without affecting productivity.

Nail guns may speed up the work, but one careless motion is all it takes to lose an eye or put a nail through your hand.

The following safe work practices can help prevent nail gun injuries:

- Always wear the proper personal protective equipment—including eye protection—when you are using the nail gun.
- Always keep your hands and fingers off the trigger when you are not using the gun. Never carry the gun with your finger on the trigger.
- Before doing any sort of maintenance on your nail gun, whether reloading it or clearing a jam, disconnect it from its air source or remove the cartridge.
- Keep your hand and fingers well away from the nail's path. Use clamps if necessary.
- Never point the gun at another person or yourself.
- Don't use a nail gun if you're working in an awkward position. This makes the gun harder to control and increases the chance of injury.
- When you're not using the gun, engage the trigger safety device or disconnect the gun from its power source.
- Never modify safety features, such as tying or wiring the nose contact in the activated position.
- Only let people who have received training operate a nail gun.
- Always use the proper type of nails in the gun.
- Never overextend your reach when you are using the gun. Hold it firmly in your hand.
- If you have to work at height, stand on a scaffold or other secure work platform rather than on a ladder.
- Always check the manufacturer's instructions.

Demonstrate

With a nail gun currently being used on site, demonstrate a trigger type while you talk.

Show your crew how to inspect the nail gun to ensure that it is in proper working condition and that all the safety features are intact and working.

A copy of the manufacturer's instructions should be available on site for reference. Show your crew where it's located.