Safety Facts:

Non-Powered Hand Tool Safety*

Hand tools can be broken into two categories: non-powered and powered. Non-powered hand tools include items such as hammers, screwdrivers, wrenches, axes, pliers, etc. Powered hand tools are tools that have an energy source such as chainsaw, air ratchet, electric drills, etc. This toolbox topic is for non-powered hand tools only.

Why is it important?

While viewed as simply tools, non-powered hand tools can contribute to many injuries, e.g., screwdriver slips and punctures hand, hammer hits finger and breaks it, knife slips and cuts hand, etc. From 2017 to 2021 there were 14,187 WorkSafeBC claims involving non-powered hand tools. The hand tools with the most claims were Knives 36%; Shovels 8.4%; Hammers 7%; Brooms, mops, and other cleaning tools 6.4%; Crowbars 5.9%.

However, it is important to think about how many workers went to see first aid but did not file a compensation claim and how many workers just cleaned up the injury and went back to work without reporting at all.

The top five leading types of injuries from non-powered hand tools were: Cuts 46%; Musculoskeletal injuries (or MSIs) 37%; Bruises 6%; Fractures 3%; Concussion 2%.

Associated risks/hazards

When you look at using a non-powered hand tool, consider its purpose to help determine its associated hazards. For example, handling cutting tools could lead to lacerations; handling striking tools (i.e., hammers, punches, etc.) could lead to fractures and contusions; handling digging tools (i.e., shovels) and cleaning tools (i.e., mops, brooms) could lead to strains and sprains.

Some of the most common hazards associated with hand tools are sharp edges, falling objects, pinch points, impact, tripping hazards, contract stress, and high gripping forces.

Also consider the issue of line of fire. If a tool slips or breaks, what will happen? For example, while being pried, a pry bar can pop off an object. You could potentially lose your balance and fall, or the pry bar can hit you in the head.

Preventive next steps

Workers need training when it comes to hand tools. Do not assume someone knows the dos and don’ts for using the hand tool. Have workers demonstrate the correct use of the tools. Develop safe work procedures or follow manufacturer’s instructions when using hand tools.

Before using hand tools make sure to inspect the tool and tag out any defective tools. See Occupational Health and Safety Regulations (OHSR) 3.5 & 4.3 for more details.

Use the right tool for the job e.g., use the tool for the purpose it was designed for. Do NOT use a screwdriver as a chisel or pry bar.

Wear the appropriate personal protective equipment (PPE) to protect from the hazards associated with the tool. For example, if you are in the line of fire and there is a chance of hitting your head, wear a hard hat. Use cut resistant gloves when handling knives.

Buy tools with good ergonomic features to prevent pinch grip force and thus reduce fatigue and strain.

* For additional resources visit:

CCOHS website Hand Tool Fact Sheets

Occupational Health and Safety Regulation (OHSR) 3.5 & 4.3

Safety in Manufacturing: Ergonomics WorkSafeBC

Non-Powered Hand Tool Safety

Toolbox Talk

Name of Facilitator: _____ **Date:** _____

Supervisor Signature: _____ **Date:** _____

Employee feedback/questions/recommendations

Workers who attended

Name	Initial	Name	Initial

Key Talking Points (Facilitator Notes)

1. What is the difference between non-powered and powered hand tools?
2. How do you report injuries at work?
3. What hazards are related with using hand tools?
4. What steps should be taken to prevent hand tool injuries at your workplace?
5. What training has your employer provided you for using hand tools?
6. What resources are available to you to learn more about hand tool use?