

Basic Hand Tool Safety

If power tools are underrated as a source of potential danger, hand tools are even more so. They might look harmless, but they are the source of many injuries. In fact, an estimated 8% of all workplace compensable injuries are caused by hand tool accidents. These injuries can be serious, including loss of fingers or eyesight.

Types of Injuries

1. Cuts, abrasions, amputations, and punctures are all too common. If hand tools are designed to cut or move metal and wood, imagine what one slip could do to fragile human flesh.
2. Repetitive motion injuries can be caused by using the same tool all day long, day after day. Carpal tunnel syndrome, which is caused by inflammation of the nerve sheath in the wrist, and injuries to the muscles, joints, and ligaments are common, particularly if the wrong tool is used, or the right tool is used improperly. Injury from continuous vibration can also be a problem, causing numbness and poor circulation.
3. Eye injuries from a tool slipping or rebounding into the eye or flying chips are even a more common hazard, often causing needless and permanent blindness.
4. Broken bones and bruises can occur when tools slip, fall from heights, or even from being thrown by a careless person. These injuries can be severe. Imagine a hammer falling from a ladder – it becomes a lethal weapon!

Here are some guidelines for using hand tools in the workplace and at home.

- **Use the right tool for the job!** Common misuses include using a wrench as a hammer or using a screwdriver as a chisel.
- **Don't use broken or loose tools.** Some examples are dull saw blades, knives or other cutting tools, or screwdrivers with worn or cracked tips.
- **Keep your body parts away from the point of impact** – especially fingers!
- Always cut away from your body when using pocket knives and blades. Using the proper cutting tool for a specific purpose can also reduce the potential for injury, such as wire strippers or box cutters with safety features.
- Have a sure grip on the tool and sure footing.
- **Avoid applying extreme pressure when using hand tools.** This may be an indication of dull or worn blades and bits, or you may be using the wrong tool for the job.
- Carry tools securely in a tool belt or toolbox. Haul tools up ladders separately – using a hoist or rope.
- Keep track of tools, particularly when working at heights. A falling hand tool can kill someone. Toe rails on elevated platforms will prevent tools and materials from being accidentally knocked off.
- **Store tools properly when you stop work.** Don't leave them lying around from someone to trip over or throw them in a toolbox where retrieval may be hazardous.
- Hand a tool to another person by passing by the handle – never throw it.
- **Use the right personal protective equipment for the job.** Safety glasses are required for most all hand tool use. Face shields and safety glasses are required for grinding operations. Gloves may be necessary for material handling, such as wood, glass, or metal.
- Don't carry sharp or pointed tools (ex. a screwdriver) in your pockets – ouch!
- Select ergonomic tools for your work areas, particularly where tools are used frequently throughout the day. (Ergonomic tools may have improved grip or positioning features.)
- Be on the lookout for signs of repetitive stress injuries – numbness, tingling, joint pain. Early detection might prevent a serious injury.

Follow these basic rules for powered hand tools.

- All tools must be UL or FM approved.
- All tools must be either grounded or double insulated.
- All tools must be in good condition and in proper working order.
- Review the manufacturer's instructions and safety information prior to use.