



Hammers, wrenches, chisels, pliers, screwdrivers, and other hand tools are often underrated as sources of potential danger. Hand tools may look harmless, but they are the cause of many injuries. In fact, an estimated 8 percent of all workplace compensable injuries are caused by incidents associated with hand tools. These injuries can be serious, including loss of fingers or eyesight.

Hand tools can cause many types of injuries:

1. Cuts, abrasions, amputations, and punctures. If hand tools are designed to cut or move metal and wood, remember what a single slip can do to fragile human flesh.
2. Repetitive motion injuries. Using the same tool in the same way all day long, day after day, can stress human muscles and ligaments. Carpal tunnel syndrome (inflammation of the nerve sheath in the wrist) and injuries to muscles, joints and ligaments are increasingly common if the wrong tool is used, or the right tool is used improperly. Injury from continuous vibration can also cause numbness or poor circulation in hands and arms.
3. Eye injuries. Flying chips of wood or metal are a common hazard, often causing needless and permanent blindness.
4. Broken bones and bruises. Tools can slip, fall from heights, or even be thrown by careless employees, causing severe injuries. A hammer that falls from a ladder is a lethal weapon.

To avoid such injuries, remember the following safety procedures:

1. Use the right tool for the job. Don't use your wrench as a hammer.
2. Don't use a screwdriver as a chisel, etc. Go back to the tool house and get the right tool in the right size for the job.
3. Don't use broken or damaged tools, dull cutting tools, or screwdrivers with worn tips.
4. Cut in a direction away from your body.
5. Make sure your grip and footing are secure when using large tools.
6. Carry tools securely in a tool belt or box. Don't carry tools up ladders. Use a hoist or rope.
7. Keep close track of tools when working at heights. A falling tool can kill a co-worker.
8. Pass a tool to another person by the handle; never toss it to them.
9. Use the right personal protective equipment (PPE) for the job. Follow company instructions for selecting and using safety eyewear, steel toed shoes, gloves, hard hats, etc.
10. Never carry sharp or pointed tools such as a screwdriver in your pocket.

11. Select ergonomic tools for your work task when movements are repetitive and forceful.
12. Be on the lookout for signs of repetitive stress. Early detection might prevent a serious injury.
13. Always keep your tools in top condition. A dull blade or blunt point can lead to injury.
14. Store tools properly when you stop work.

#### Care and Control of Hand Tools

Hand tools should be handled with care, maintained and properly stored. Storage in sheds requires special attention. Humidity will warp and rust metal. Do not store tools in a metal storage facility during hot weather, if humidity is too low, wooden handles become brittle and shrink.

If possible, use a centralized inventory control system to assure uniform inventory, inspection procedures and maintenance by a trained employee.

When there is a high frequency of use, ergonomics tools should be used. These tools allow the hand, wrist and arm to work in a neutral position; this reduces injury to the upper extremities due to repetitive motion injuries.

Employees should be trained on all new tool designs to ensure their proper use.

When employees use their own tools, supervisors should examine them to ensure that they are safe and in useable condition. Remember that the employer is ultimately responsible for seeing that defective tools are not used.

#### Use of hand tools

The most significant precaution to be taken when working with hand tools is to select the right tool for the job. As an example, never use a wrench as a hammer or a screwdriver as a pry bar.

Carry your tools in a tool belt and pouch that has been specifically designed for protection.

Use insulated tools when working in or around electrical components – look for a dielectric label. Be aware that some handles on tools are only plastic dipped and are not insulated against an electrical charge.

Tools such as knives, picks and awls require special guarding to prevent slippage:

- Metal guards surrounding the hilt of the handles
- Specifically designed and shaped handles
- Recessed sheet metal guards positioned on the side, top and/or bottom of the handles
- Keep knives and cutting tools sharp and wear gloves wherever the potential for injury exists

Secure your work with a clamp whenever viable and direct strokes away from your body.

Whenever a tool has a mushroomed head, redress it on a grinding wheel.

Don't take a hammer for granted. There are many types and styles specifically designed for a particular type of job.

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