

Risk Control Bulletin

Choosing Safer Hand Tools in Construction

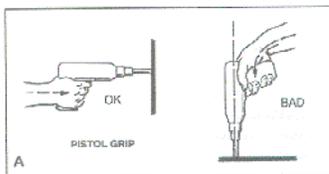
RISK CONTROL



Construction workers use a variety of hand tools such as hammers, screwdrivers, pliers, and tin snips.

The Hazards

When using hand tools over and over every day, you can injure your hand, wrist, or arm. This can occur if you must hold a tool tightly for a long period of time or keep twisting the handle. Painful problems that could force you to quit construction work include carpal tunnel syndrome, trigger finger, and white finger.

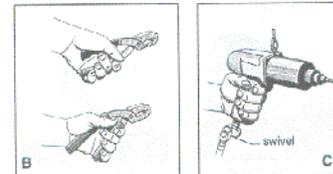


Protect Yourself

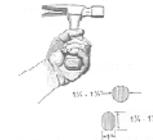
You can help protect yourself by purchasing "safer" hand tools and ensuring that you use them correctly.

When You Buy a Hand Tool

- Look for a tool that needs **less force** when using it.
- For jobs that do not require heavier tools, look for a tool that **weighs less** and puts less stress on your hand.
- Look for a tool that is **balanced** and doesn't tip forward or backward when held.
- **Look at the handle**
 - It should be **comfortable in your hand** — not too thick, too small, or too short.
 - It should be easy to use with your right and your left hands.



- It should not conduct electricity or heat. (Working with a cold handle can make some repetitive stress injuries worse.)
- It should **not hurt your hand when you hold tight**. You do not want sharp edges or finger grooves.
- If available, get a non-slip handle with a cover made of soft materials. Ridges on a handle can hurt your hand.



- If you need to use a lot of force on the job, the handle should be **long enough for your whole hand** — not just your fingers. (You want a "power grip," not just a "pinch grip.") You can use a long handle as a lever to add to the force of a tool and reduce the stress on your hand.



- Consider using a larger handle if you will be wearing **gloves** while using the tool.
- For some tools, the handle should have a **spring return**; this re-opens the tool for you after you use it. The spring return saves wear and tear on

your finger muscles.

- If appropriate for the job, a **bent angle or adjustable angle** on some tools can help you keep your wrist straight. When you work overhead, you may need different tools that allow the wrist to be kept straight.
- You may want to get a rubber or plastic sleeve for the handle to make it safer.
- A power tool should have a long trigger that allows use of more than one finger at a time.
- Get a power tool with reduced vibration and noise levels. Too much vibration can damage the nerves in your hand and cause "white finger." If a tool vibrates, you have to grip it harder which can hurt your muscles.

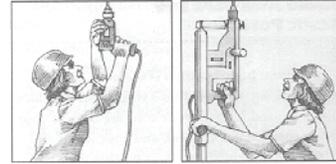


- If more than one person will use a tool, try to find one that's comfortable for everyone to hold. You may need different tools for left-handed and right-handed workers and for workers with varying hand sizes.

When You Use a Hand Tool

- Keep the tool sharp and in good condition. This can help decrease the force you must use on the tool — and reduce the stress on your hands and wrists.
- Try not to use tools with your wrist bent. An ergonomically designed tool with a curved handle may let you keep your wrist straight.
- Use a power tool when you can. A power tool can cut the wear on your hand.
- Try to rest your hands during the day. Even a perfect tool can hurt you if you must use it over and over.
- Lay down the tool or put it in a holster when you don't need it.
- If a tool stand is provided, use it to support the weight of the tool to minimize awkward postures.

You Should Know



- One tool cannot do all jobs. Using a tool for a job it was not designed for can increase the difficulty of the job.
- Although many tools available in stores are labeled as "ergonomic" tools, you are the one who can tell if a tool is comfortable and easy to use. Try a variety of tools until you find one that fits your hand size, strength, and preference.
- How you use a tool is as important as which tool you use. Rest breaks should be incorporated when using one tool to do the same thing over and over for an extended period of time. A proper hand tool can help improve productivity and ensure the job gets completed correctly.

Adapted from the Electronic Library of Construction Occupational Safety and Health article, "Hazard Alert – Choosing Safer Hand Tools in Construction" developed by the Center to Protect Workers' Rights (CPWR). CPWR is a research arm of the Building and Construction Trades Dept., AFL-CIO: CPWR, 8484 Georgia Avenue – Suite 1000, Silver Spring, MD 20910, 301-578-8500