

# Hand & Power Tool Safety

Hand and power tools are commonly used in various industries and occupations, but they can pose serious risks if not used properly. Accidents and injuries caused by hand and power tools can be avoided by following safe operating procedures and being aware of common risk factors. Review this fact sheet for safety precautions to follow when operating hand and power tools.

## Hand and Power Tool Safety Tips

- Know your tools and choose the appropriate tool type and size for the job.
- Maintain tools that are clean, sharp, and in good working order.
- Use the tool only for its intended purpose.
- Inspect tools before using them. Examine the cord, guards, housing, alignment, and overall state.
- Remove damaged tools from service and immediately notify your manager/supervisor.
- Remove or circumvent any guards or other safety mechanisms.
- Never transport tools by the cord or hose.
- Don't try to catch falling tools.
- When not in use, disconnect tools from the power supply before servicing or changing blades, bits, and cutters. To disconnect, never yank on power cords or hoses.
- Before using tools, make sure they are grounded (3-wire plug is intact); use a ground-fault circuit interrupter (GFCI) outlet if one is available.
- Be cautious of sparks generated by tools. Stay away from flammable vapors, dusts, or materials.
- When working in wet conditions, avoid using electric tools.
- Use clamps or a vise to secure work in order to free hands and grip tool. Use tools only on stable work surfaces.
- Avoid using too much force; let the tool do the work.
- For unfamiliar tools, read the manufacturer's instructions and seek training.
- Do not operate power tools if you are taking medications, feel tired, or are distracted.



## Housekeeping Tips

- Keep floors clean and dry to avoid slips and falls when working with power tools.
- Create organized areas with designated areas for tools or store them in cabinets.
- Never leave tools on ladders or in walkways where they can fall or become a tripping hazard.
- When you're finished with a tool, put it back where it belongs.
- Give yourself enough room to work for the type of task you are doing.

## Always Use PPE

- Wear safety glasses or goggles to protect your eyes from dust or projectiles. Use a welding hood for protection from hot metal fragments when grinding or soldering.
- Gloves protect your hands from scrapes and bruises. Use the appropriate gloves for each tool and task, if necessary.
- Wear steel toe or composite shoes keep your feet safe from falling tools and materials, if necessary.
- When noise levels exceed safe levels, use hearing protection.
- In certain cases, respiratory protection may be needed to protect against dust and fumes.
- Avoid wearing loose clothes and keep long hair tied back.

## References

- OSHA: [Hand and Power Tools](#)
- Yale EHS: [Hand and Power Tools](#)
- UCLA EHS: [Hand and Power Tool Safety](#)