

# Hand Tool Ergonomics Stats and Facts



## FACTS

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, a single slip can do to fragile human flesh.
1. Repetitive motion injuries.
  - Using the same tool in the same way for several hours each 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.
1. Eye injuries.
2. Broken bones and bruises.

Tools can slip, fall from heights or even be thrown by careless employees, causing severe injuries. A screwdriver that falls from a ladder is a lethal weapon.

1. Work factors affect the health and performance of hand tool users.
  - static load on arms and upper body muscles
  - awkward working positions and body postures
  - tissue compression
  - vibration

## STATS

- Bureau of Labor Statistics reports results of 129,399 injuries caused by power and nonpower hand tools.
  - Powered hand tools cause relatively few hand injuries in the industry. Hand injury claims amounted to only about 4.5 % of all injury claims accepted for the industry as a whole.
  - Saws, drills, and nail guns account for most of the injuries (67 %).
  - Work tools and power tools cause hundreds of thousands of injuries each year. Many of these are used in the construction industry.
  - Surveys estimate that work tools and power tools cause an average of nearly 400,000 visits to the emergency room each year.