# Hand Protection

More than 500,000 employees are sent to the emergency room annually for hand injuries. Although many hand injuries are preventable, workers should be alert to common dangers and the ways that gloves can prevent hand injuries.

Workers can be exposed to hand injuries from tasks, activities, or areas involving the following:

- Exposure to hot substances, sparks, flames, or electrical hazards
- Handling asbestos containing materials, lead based paints, or human or animal wastes
- Work with sharp tools, knives or duct work
- Handling sharp materials such as sheet metal or glass
- Pouring, washing, or spraying chemicals or materials
- Handling materials with protruding nails

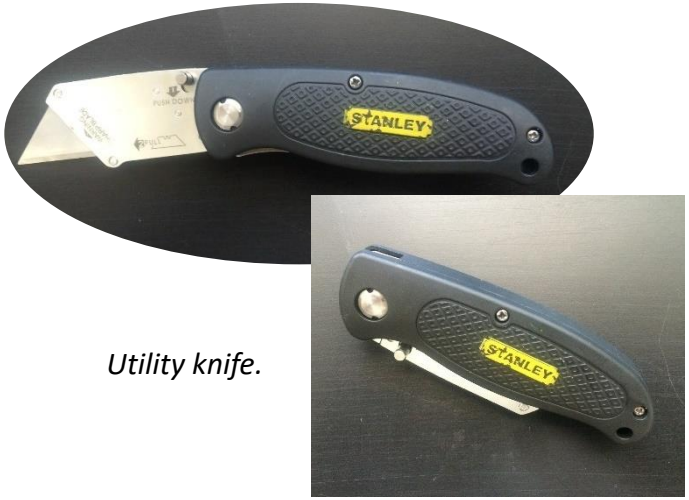
**OSHA Standard 1910.138(a)** *Employers shall select and require employees to use appropriate hand protection when employees' hands are exposed to hazards such as those from skin absorption of harmful substances; severe cuts or lacerations; severe abrasions; punctures; chemical burns; thermal burns; and harmful temperature extremes.*

*The individual in this photo did not wear gloves while working with a power tool and it cut between his thumb and index finger a 2-inch length laceration requiring surgery and stitches. (*1)*

# Hand Protection

- Workers need to recognize hazards to their hands when working with sharp tools or knives.
- Proper handling of sharp materials such as sheet metal or glass is important but may not be enough to prevent cuts, abrasions, or even amputations.
- New glove technology is available and workers may be able to use metal mesh, Kevlar, or other forms of specially coated gloves to handle glass, sheet metal, or even when performing fine work such as using knives.

*Metal mesh glove. (*2)*




*Utility knife.*

*Kevlar cut resistant gloves. (*3)*

# Hand Protection

- Workers handling asbestos-containing materials, lead-based paints, or other contaminated materials may need to use gloves specific to the type of chemical.
- Not all chemical resistant gloves are safe to use with all materials!
- Pouring concrete, washing brickwork or masonry, or spray coating and staining cement may require chemical resistant gloves.


*Example of chemical specific gloves. (*4)*

*The worker in this image is wearing specialized chemical resistant gloves along with other heavy chemical resistant equipment.*

# Hand Protection

- Work with hot substances, sparks or flames requires the use of heavy duty leather or fire retardant material.


(*5)


(*6)

- Work with potentially energized or live electrical equipment will require gloves that are rated for a specific voltage range.

# Hand Protection


*Note the fingerless work gloves used in this image. (*7)*

Remember these tips to improve hand protection for workers:

- Proper handling of sharp materials such as sheet metal or glass is important but may not be enough to prevent cuts, abrasions, or even amputations.
- Consider using metal mesh, Kevlar, or other forms of specially coated gloves to handle glass, sheet metal, or even when performing fine work such as using cutting knives.
- Not all chemical resistant gloves are safe to use with all materials!
- Pouring concrete, washing brickwork or masonry, or spray coating and staining cement may require chemical resistant gloves.
- Work with hot substances, sparks or flames requires the use of heavy duty leather or fire retardant material.
- Work with potentially energized or live electrical equipment will require gloves that are rated for a specific voltage range.
- Fingerless work gloves are a great option to provide protection from handling sharp edges but allow the worker to have finger dexterity to handle screws or small parts.

# Hand Protection

## COPYRIGHT AND DISCLAIMER



## PHOTO ACKNOWLEDGMENTS

Unless specified below, all photos are the copyrighted property of Weeklysafety.com, LLC and may not be used in any other training materials or resold for any purpose.

- (*1) Photo Credit – Parker Knight. Recent Photos. https://www.flicr.com/photos/rocketboom/4318479571/
- (*2, 3) Photo Credit – OSHA.gov. https://www.osha.gov/SLTC/youth/restaurant/knives_foodprep.html
- (*4) Photo Credit – Pixabay. https://pixabay.com/en/chemical-gloves-epi-chemical-risk-1010559/
- (*5) Photo Credit – Official U.S. Navy Page. Sailor welding a flange. https://www.flickr.com/photos/usnavy/5506580260/
- (*6) Photo Credit – el cajon yacht club. gloves DSC_1986. https://www.flickr.com/photos/el_cajon_yacht_club/13726950304/
- (*7) Photo Credit – Mark Hunter. Metabo July 2011. https://www.flickr.com/photos/toolstop/5987965056/



For more information on this weekly safety topic, other topics that are available and the full list of FAQs please visit www.weeklysafety.com or email safety@weeklysafety.com.