

Safety Talk

Preventing Cuts and Lacerations

Before you begin

Review past incidents/injuries involving cuts and lacerations. Have participants discuss the cause of the injuries and how the worker or the employer could have prevented the injuries from occurring. Review the items on the next page to determine if any of the injuries resulted from not following one or more of the listed items. Ask participants to identify other typical hazards/causes.



Introduction

Each year, millions of workers suffer workplace injuries that could have been prevented. Some of the most common and preventable injuries are cuts and lacerations. Although statistical data differs from study to study, cuts and lacerations often rank as the second or third most frequent workplace injury. According to the National Safety Council, over 40% of hand injuries in 2018 were from cuts and lacerations with over 50,000 of those injuries involving days away from work.

Common cut/laceration injuries include:

- Scratches and abrasions.
- Minor cuts requiring first aid.
- Needle sticks.
- Puncture wounds.
- Deep lacerations requiring medical attention, sutures.
- Lacerations involving nerve and/or tendon damage.
- Amputations.

Definitions

Personal protective equipment (PPE) – equipment worn to minimize exposure to hazards that cause serious workplace injuries and illnesses. These injuries and illnesses may result from contact with chemical, radiological, physical, electrical, mechanical, or other workplace hazards.

Cut-resistant gloves – gloves designed to protect the wearer’s hands from cuts while working with sharp tools. When tested in accordance with ASTM F2992-15, the glove’s cut resistance is classified against levels listed in ANSI 105-2016 Section 5 Table 1, using the weight needed to cut through the material with 20 mm of blade travel.

Amputations – the traumatic loss of all or part of a limb or other external body part. This would include fingertip amputations with or without bone loss; medical amputations resulting from irreparable damage; and amputations of body parts that have since been reattached.

Discussion

Typical hazards/causes of cuts and lacerations

- Improper training
- Lack of established safety procedures
- Employees in a hurry, taking short cuts, or not following safety procedures
- Failure to wear cut-resistant gloves or wearing improper gloves for job
- Contact with metal items such as nails, metal stock, or burrs
- Hand tools with blades (e.g., knives, box cutters, screwdrivers, chisels)
- Powered machinery with cutting blades, pinch points, chain and sprocket, conveyor belts, rotating parts, motors, presses, lathes
- Handling sharp objects or material such as glass, sheet metal
- Improper tool for the job or tool used improperly (e.g., using a screwdriver as a pry bar)
- Tools in poor condition (e.g., cracked or broken handle, dull blade, mushroomed head or slippery from exposure to oil-based chemicals)
- Missing or improperly adjusted guarding
- Poor housekeeping, clutter, debris
- Poor lighting, reduced visibility

Prevention strategies

The key to preventing these injuries is keeping body parts away from hazards. Employers should establish work procedures to identify and control exposure to hazards. Ask participants to suggest control measures to minimize the risk for cuts and lacerations. Possible answers include:

- Training employees to use established safety procedures.
- Maintaining proper machine guarding.
- Using lockout/tagout procedures.
- Wearing PPE.
- Safe tool use.
- Good housekeeping.

Glove selection

Selecting the right glove for the right application can improve worker safety and productivity. Comfort is one of the most important factors when selecting hand protection. If gloves are not comfortable, workers are less likely to wear them. Understanding the different types of gloves and their appropriate uses is important to a good hand-protection program. Fortunately glove manufacturers have come a long way over the past several years in improving the protection factor of gloves while still offering dexterity.

Knife/blade safety

One of the most common sources of cuts and lacerations is the use of knives and other cutting tools. Gather examples of utility knives and other cutting tools used at your facility and a copy of safety procedures regarding their use. Review your safety procedures or use the following suggestions.

- Wear proper safety gear (e.g. eyewear, gloves, protective sleeves).
- Use the proper tool for the job.
- Inspect tools prior to use.
- Keep tool under control at all times.
- Keep the item you are cutting secured; don't hold work in hand while cutting.
- Use a sharp blade; a dull blade requires greater force and should be replaced and properly disposed of (e.g., use approved sharps container or wrap the cutting edge with heavy tape).
- Stand in a well-balanced position.
- Make sure the path of the cut is clear and keep the non-cutting hand out of the path of the cut.
- When cutting thick material, use several passes of the blade and apply more downward pressure with each pass.
- Never use a cutting blade as a screwdriver, pry bar, or chisel.
- Don't leave exposed blades unattended; use self-retracting cutting blades.
- Maintain proper storage for sharp cutting tools and keep them in a closed position or covered with a protective sheath.

Band saws blade use and storage

When handling band saw blades, to coil or uncoil them always keep the cutting side pointed away from you. Ensure that protective gloves are worn and be prepared for the space needed when the blade is uncoiled. When band saw blades are not in use, they pose a hazard if not stored correctly. A designated area should be deemed for storage. If blades do not come with a protective cap or blade guard to cover the cutting portion of the blade, check with your distributor on possible solutions.

Conclusion

With thorough analysis and planning, you can develop a prevention plan to help eliminate these types of injuries from your workplace. Remember to evaluate the workplace for cut hazards and develop a plan of action to prevent those injuries. PPE can be a good initial step to protect workers but ultimately the goal should be to eliminate or engineer out the problem. Thankfully, the number of cuts and lacerations reported decreases each year.

Activity

This activity will be broken down into several small group discussions. Select several work activities in your workplace that require the use of sharp objects. Additionally, you should have available your PPE policies, job hazard assessments, and job aids for the tasks selected.

Create several workstations representing these hazards in a written scenario. Have employees break into groups of three or more and discuss the various scenarios amongst themselves. The focus of the discussion should be around:

1. Company procedure for safe operation of the equipment or task.
2. PPE that could be used to protect the worker.
3. Areas that could be improved to reduce the potential for injuries.
4. How they will protect themselves based upon this training.

Provide feedback to the participants and reinforce the correct decisions with supporting PPE policies, job aids, and job safety analysis sheets your organization uses.

Resources

[OSHA, Publications about amputations](#)

[ChooseHandSafety.org, Choosing gloves](#)

[Canadian Centre for Occupational Health and Safety, Working safely with sharp blades or edges](#)