PPE – Hand, Wrist, Fingers Quiz

QUESTION

What are the three primary steps to prevent hand, wrist, and finger injuries in the workplace'

ANSWER

1. P.P.E.
2. Awareness
3. Training

WHY IS IT RIGHT

PREVENTION

The first step in understanding the potential risk of hand and finger injury is to understand the three kinds of hazards. Once these are understood and evaluated it is possible to apply a hierarchy of possible controls.

1. **Mechanical Hazards '** these are situations where hands and fingers can get caught, pinched, crushed or severed in chains, rollers, gears, or other moving parts. Objects could fall on your hands. Or, your hands could get hurt while handling materials. Even hand tools can be a mechanical hazard if they are used incorrectly or are damaged.
2. **Contact Hazards '** these hazards cause hands and fingers to get cut on sharp edges of tools, materials,

packaging, containers or even debris from a manufacturing process. These hazards also include electrical current, chemicals, and extreme hot and cold temperatures.

3. **Personal Hazards ‘** these hazards include wearing jewelry, loose clothing or using improper or defective personal protective equipment.

The best way to control these hazards is to apply the **Hierarchy of Controls**. Conduct a risk assessment, looking at the potential severity of the hazard and the frequency of worker exposure. Think first about **eliminating the hazard**. This can be achieved by incorporating new engineered solutions and re-evaluating the safe job procedures. Can the job be done without exposure’ Next, is there a way to reduce the hazard through substitution’ Look for ways to upgrade outdated equipment or find safer methods. Replace older, heavier and less ergonomically designed equipment or tools with better ergonomically designed models, and those that reduce force or posture hazards. Is there a way to minimize the risk by re-**engineering** older equipment’ In some cases the type of guarding needs to be upgraded to keep hands out of the danger zone. Use of light curtains or two-hand trip switches would be an example. Then as we get into less effective controls, you can look at **administrative controls** (procedures and training) and **personal protective equipment.** The following are tips that you can use with employees to help understand the types of hand injury hazards and common controls. You can also use this information to work cooperatively with your employees to identify, through risk assessment and hazard awareness, better ways of eliminating, substituting or re-engineering the job to reduce the risk of injury.

MECHANICAL HAZARDS

When working with moving equipment:

- Make sure all guards are secure and in place.

- Keep hands and fingers out of the moving parts.
- Never reach blindly into any spaces in, around, under or near the equipment.
- Follow all lockout/tagout procedures.

When using portable power tools:

- Make sure they are operating correctly and all guards are in place.
- Unplug corded tools or remove the battery from cordless tools before changing bits, blades or accessories.
- Lock out a tool to service it or send it out for service.

When using hand tools:

- Make sure you are using the correct tool for the job ‘ no improvising.
- Select the right size and head style for screwdrivers.
- Screw drivers are not pry bars, scrapers, chisels or puncturing tools.
- Use a wood chisel for wood and a cold chisel for metal.
- Select the right type and size of wrenches and pliers for the job.
- Never use a cheater bar on a wrench.
- Look the tool over to be sure it is in good working order and not damaged in any way.
- Never use a hammer with a splintered, cracked or loose handle.
- Don’t use a chisel with a mushroomed head.
- Don’t use pliers with worn grooves or adjustable wrenches with worn or sprung jaws.
- Use penetrating oil on rusted nuts and bolts ‘ give it time to work.
- Secure your work in a vise or a bench.
- Don’t hold it in your hand.
- Use a locking pliers when grinding, trimming or cutting small parts.

When handling or moving materials and equipment:

- Never place your hands between pieces of a load or between a load and a fixed object.
- When using a crane or hoist, keep your hands out of the place where the sling, chain or hook will tighten the load.

CONTACT HAZARDS

Blind reaching is a common way to injure hands. That's reaching into, under, over, between or behind something when you can't see where your hands will be. Blind reaches can cause your hands to:

- Get burned on something hot or cold.
- Be cut on a sharp edge.
- Come in contact with moving parts.

If you can't see:

- Get down on your hands and knees to look under something first.
- Use a flashlight or mirror.
- Shut down equipment and lockout to remove a guard to work on it or pick up a fallen item.

Sharp tools also cause contact injuries. To prevent these injuries:

- Keep blades on knives and tools sharp.
- Wear cut-resistant gloves.
- Use the right knife and blade for the material being cut.
- Check the path the knife will follow before starting a cut.
- Keep momentum away from your body when cutting.
- Dispose all sharps in a labeled-sharps container; not the regular trash bin.

PERSONAL HAZARDS

- Make wise choices before you start working about what you are wearing:
- Remove rings, watches and bracelets when working with tools, machinery or if they could get caught on anything.
- Make sure sleeves or other loose clothing can’t get caught in or on anything.
- Select the right work glove for the job and make sure they fit properly ‘ not too tight and not too loose.
- Inspect gloves for tears, holes and wear.
- Wash hands frequently to keep them safe.

- Avoid frequent use of solvents, harsh soaps or abrasive cleansers.
- Wash hands immediately after using any chemical ‘ even if you wore gloves.
- Get medical attention for skin rashes or irritations on your hands.

WRIST INJURY PREVENTION

Each day we use the muscles and tendons in the wrist and hand to perform various upper extremity tasks. The physical stress and strain to these muscles and tendons can produce microscopic wear and fatigue to these tendons and muscles.

As long as the amount of fatigue is lower than the body’s ability to recover, the soft tissues in the wrist will remain healthy. But too much strain and fatigue, coupled with too little repair, can lead to inflammation and eventually a painful and costly musculoskeletal disorder (MSD).

Potential MSDs of the Wrist

- tendonitis
- carpal tunnel syndrome
- ganglion cysts

- trigger finger
- DeQuervain’s

There are a number of things that can do be done decrease the risk of wrist fatigue and discomfort for team members.

1. **Ergonomic Design Principles For Wrist Injury Prevention**

Ergonomics is the science of fitting the work to the worker, making sure jobs and tasks are within the worker’s capabilities and limitations. It’s part of your company’s commitment to provide a safe workplace.

- Maintain neutral posture.
- Avoid repeated or sustained flexion and ulnar deviation.
- Avoid repeated or sustained pinching and allow for small hands when designing gripping tasks and selecting hand tools.
- Allow plenty of access space for large hands.

2. **Educate and Train Team Members**

Poor work practices, a poor health profile and no recognition of early signs and symptoms by team members contribute to musculoskeletal disorders (MSDs). Implement a comprehensive Workplace Athletics process to control risk factors related to individual team members and enhance human performance.

- A good pre-shift stretching program will help increase circulation and elasticity of the muscles and tendons.
- Team members should be educated regarding proper lifting techniques to reduce stress on the lower back.
- Team members should also be trained and motivated to perform specific stretches to counteract tightness and compression in the low back.
- Team members should be encouraged and motivated to adopt good health habits and keep their body fit for work.

3. **Recognize and Report Early Signs of MSDs**

At the first signs of excessive fatigue and discomfort, team members should be trained to recognize it and strongly encouraged to report it. When an early report is received, an on-location preventative health care professional should conduct a one-on- one early intervention consultation to identify the root causes and help the team member utilize injury prevention best practices.

WHY IS EVERYTHING ELSE WRONG

GENERAL

You need your hands for most common activities, especially at work, so preventing hand injuries is something to keep front of mind. Unfortunately, hand and finger injuries in the workplace continue to be common.

Prevention also matters because it works: with the right approach, hand injuries are almost completely avoidable.

Hand, wrist and finger injuries are particularly important to avoid because, not only are hands critical to everyday life and work tasks, they’re hard to fix and heal. This is because they are neuromuscularly complex, involving a lot of small, intricate parts. Even a relatively small cut can cause big issues.

PREVENTION FOCUS

The most common hand injuries are lacerations and punctures.

Common hand and finger injuries are:

- Smashes, pinches, crushes
- Overuse
- Avulsions and detachments
- Abrasions and burns
- Impact from trips and falls

HOW TO PREVENT INJURIES IN THE WORKPLACE

There are three primary steps to preventing hand, wrist and finger injuries that will help in any workplace: **PPE, Awareness, and Training.**

1. **Most hand injuries are the result of not wearing gloves or of wearing the wrong gloves for the job.** Make sure workers have access to quality gloves that fit well and are right for the task. Establish a zero-tolerance policy for overlooking this safety protocol.
2. **Awareness requires a two-pronged approach:** Workers need to be aware of potential risks and how to avoid them. Additionally, they need to stay aware of their surroundings and how they're moving through them. Common causes of workplace injuries are distraction, fatigue, or not paying attention. Encourage workers to always be aware of where they put their hands and the potential risks in their environment. Eliminate distractions or hazards like clutter.
3. **Increase awareness and best practices with safety training.** Statistics show that safety training works'frequent but short reminders like toolbox talks or safety moments keep well-being at the forefront. These refreshers are particularly important for younger or less experienced workers.

Hand Injury Prevention: 5 Ways to Keep Hands Safe at Work

Hand injury prevention techniques are essential in high-risk workplaces. It's paramount that your workers take extra care of their bodies when working with dangerous tools.

1) WEAR PERSONAL PROTECTIVE EQUIPMENT (PPE)

Donning personal protective equipment (PPE) is a great way to stay safe at work. To protect working hands, wearing proper gloves is a necessity. As stated in an article on Vivid Learning Systems, there are several types of gloves that protect against a wide variety of potential risks:

-Heat Resistant

These gloves provide protection against burns and flammable surfaces.

-Cut Resistant

These are commonly used when working with knives. They prevent punctures and cuts to the hands.

-Non-Conductive

Thicker non-conductive gloves are worn by electricians to protect themselves against low-voltage electricity.

-Chemical Gloves

These gloves provide much-needed protection against solvents, acids, oils, and caustic materials. Neoprene, nitrile, latex, and vinyl are all examples of materials that offer chemical protection.

2) IMPLEMENT ENGINEERING CONTROLS

Engineering controls are another way of ensuring safety in high-risk work environments. Oftentimes, physical safety guards are put into place. These are built into machines with the objective of protecting a worker's hands from pinch points, rotating parts, and sharp objects. In addition, man-made ergonomic engineering controls are designed to put less strain on wrists, fingers, and hands.

Moreover, engineering controls are important when it comes to hand safety in the workplace. Sensors, light beams, and switches are perfect for ensuring that a worker's hands aren't in close proximity to dangerous equipment.

3) UTILIZE ADMINISTRATIVE CONTROLS

Administrative controls come in handy when it's impossible to safely implement engineering controls. It's vital that you

introduce proper hand injury prevention training to your team. Some examples of administrative controls include:

- Safety training
- Warning signs
- Lock and tag rules
- Product substitution
- Designing with ergonomic principles

4) SOLID SAFETY TRAINING

Now let’s expand on effective safety training. Making sure your employees are properly and thoroughly trained when it comes to protecting their hands is crucial. In addition, having hand and finger injury prevention campaign materials readily available for your workers is a must.

Firstly, you want to ensure that workers are aware of the equipment/tools around them and how to use them correctly. In addition, make sure they put that training into action; don’t just verbally ‘walk them through’ the process. Humans tend to learn best by actively performing a task as opposed to merely listening to step-by-step instructions.

Secondly, give your employees high-performance safety tools, such as finger-friendly’ cutting tools. Safer tools can make a difference between a safe workplace and a hazardous one.

5) KEEP THE WORK ENVIRONMENT CLEAN AND HAZARD-FREE

Something most people don’t consider is that a lot of hand injuries can involve your feet. How so’ Via slipping on wet surfaces or tripping over objects strewn about the floor. How do you instinctively catch yourself when falling’ With your hands. Falls can lead to significant hand and wrist injuries.

So, it’s important to maintain a clean, hazard-free workplace. Keep all surfaces free of spillage, especially floors. Remove potentially trip-inducing objects from walkways, such as

brooms and jutting equipment. Ensure knives are properly stored with blades facing away from hands or other body parts susceptible to injury. Lastly, exercise caution in small spaces with multiple people.

If you keep these hand injury prevention tips in mind while at work, you and your employees will be all the safer for it.