



Training Solutions, Delivered!

# **LESSONS LEARNED FROM HAND INJURIES**

*Non-Graphic (Concise)*

**Leader's Guide, Fact Sheet  
& Quiz**

**Item Number: 4023**

**© AP Safety Training**

***This easy-to-use Leader's Guide is provided to assist in conducting a successful presentation.***

## **PREPARING FOR THE MEETING**

Here are a few suggestions for using this program:

- a) Review the contents of the Fact Sheet that immediately follows this page to familiarize yourself with the program topic and the training points discussed in the program. The Fact Sheet also includes a list of Program Objectives that details the information that participants should learn from watching the program.
- b) If required by your organization, make an attendance record to be signed by each participant to document the training to be conducted.
- c) Prepare the area and equipment to be used for the training. Make sure the watching environment is comfortable and free from outside distractions. Also, ensure that participants can see and hear the TV screen or computer monitor without obstructions.
- d) Make copies of the Review Quiz included at the end of this Leader's Guide to be completed by participants at the conclusion of the presentation. Be aware that the page containing the answers to the quiz comes before the quiz itself, which is on the final page.

## **CONDUCTING THE PRESENTATION**

- a) Begin the meeting by welcoming the participants. Introduce yourself and give each person an opportunity to become acquainted if there are new people joining the training session.
- b) Introduce the program by its title and explain to participants what they are expected to learn as stated in the Program Objectives of the Fact Sheet.
- c) Play the program without interruption. Upon completion, lead discussions about your organization's specific policies regarding the subject matter. Make sure to note any unique hazards associated with the program's topic that participants may encounter while performing their job duties at your facility.
- d) Hand out copies of the review quiz to all of the participants and make sure each one completes it before concluding the training session.

## **4023 LESSONS LEARNED FROM HAND INJURIES *Non-Graphic (Concise)***

### **FACT SHEET**

**LENGTH: 9 MINUTES**

#### **PROGRAM SYNOPSIS:**

From our earliest moments, we use our hands to learn, to explore and to interact with the world around us, and now as working adults, our hands continue to be “out front,” touching, grasping, pushing, pulling and lifting our way through work and through life. Unfortunately, being “out front” can also mean being placed in danger, and sometimes things go wrong. This program features reenactments of workplace hand injury scenarios to teach valuable safety lessons about protecting our hands in every situation where hazards exist.

Viewers will see the traumatic consequences of becoming distracted, failing to wear gloves, wearing jewelry around moving machinery and failing to pay attention to our work. The video also reviews such hand safety topics as the causes and effects of hand injuries, selection and use of protective gloves, nip points, entanglement hazards and use of assist devices.

#### **PROGRAM OBJECTIVES:**

After watching the program, the participant will be able to explain the following:

- What lessons can be learned from hand injuries reenacted in the program;
- What types of protective gloves are available and which hazards they protect against;
- What nip points are and why they are so dangerous;
- Why loose hair, clothing and jewelry are not allowed around moving machinery;

#### **INSTRUCTIONAL CONTENT:**

##### **THE CAUSES & EFFECTS OF HAND INJURIES**

- Misplaced hands and fingers can quickly be crushed and industrial knives can easily lacerate; unprotected hands can be burned by hot materials or frostbitten by extreme cold. Even the chemicals we work with can cause injury if precautions are not taken.
- Protective gloves, just like all protective equipment, do no good if they are not worn. One study showed that 70 percent of workers suffering hand injuries were not wearing gloves; wearing the proper type of protective glove is one of the most effective ways to prevent hand injuries.
- “My gloves were right there. I ask myself every day, ‘Why didn’t you put them on?’ I still don’t have a good answer,” says a press operator who neglected to wear gloves while handling sheet metal and suffered severe hand lacerations.

##### **SELECTION AND USE OF PROTECTIVE GLOVES**

- Lightweight cloth gloves protect against minor hazards that can result in scratches, blisters or irritation.
- Heavy leather gloves are good for working around materials with sharp or rough edges as well as wooden objects, which may have splinters.
- There are many types of cut-resistant gloves available for workers who frequently use knives, cutters or handle extremely sharp objects. Cut-resistant gloves may be made of Kevlar, metal mesh or other materials.
- Hot work such as welding, cutting or brazing will require gloves made of heavy leather and designed for handling hot materials.
- Intensely hot items or work areas will require specialized heat-resistant gloves made from such materials as Nomex, Carbon-X and Kevlar.
- Certain chemicals will require specific types of protective gloves. Check the Material Safety Data Sheet or chemical label to select the appropriate chemical glove.
- Disposable latex or rubber gloves can protect against bloodborne pathogens as well as bacteria and germs. Remember that they should only be worn once and then disposed of properly.
- As you have seen, there are almost as many types of protective gloves as there are various jobs to be done. Your employer has determined the types of hand hazards at your facility and provides the protective equipment and training

necessary to ensure your safety, but it is also your responsibility to take an active role in preventing hand injuries when performing each and every task.

### **NIP POINTS & OTHER HAND HAZARDS**

- Whether you are new to an area or an experienced worker, be aware of where your hands are at all times. A good safety practice to follow is to avoid touching anything unnecessarily.
- Take a moment to scan for hand and finger hazards as you move about the workplace. Look for moving chains, gears, belts, pulleys, rollers and similar items.
- Also, look out for the actions of moving machines and various material handling operations, which move materials past solid objects. These types of hand hazards are commonly called “nip points” and are particularly dangerous.
- A nip point is any place where a body part will fit between a moving object and a fixed surface or between two moving solid objects.
- An especially dangerous type of nip point is an “in-running nip point.” An in-running nip point can not only crush hands and fingers, but will also continue to pull you farther into the hazard.
- This often occurs when employees reach into a nip point to clear a jam or to start material being fed into a process. Many hand and arm amputations, as well as fatalities, are the result of being caught in an in-running nip point.
- Under normal conditions, many nip points as well as other types of hand hazards are guarded to prevent injuries. Never defeat or “cheat” any safety devices such as interlock switches, light curtains or machine guarding.
- It is vital to understand that not all hand hazards can be completely guarded. When this is the case, it is critical to stay alert and always keep hands, fingers and other body parts the recommended distance away from the actions of machines.
- Long hair or loose clothing can also become entangled in nip points or moving machine parts, frequently leading to disastrous consequences. This is why long hair and loose clothing are not allowed near moving machinery.

#### ***Factory Worker Loses Finger When Ring Gets Caught In Conveyor***

- As Jenny Parker learned, jewelry, especially rings, can cause serious injury.
- “I had just gotten engaged and I was so excited! I wanted to wear my ring to work and show everybody, even though I knew rings were prohibited in my area,” says Jenny.
- “I was standing on a raised platform hanging parts into an overhead conveyor when my ring got caught on part of the hanger assembly,” she continues. “My ring was stuck with my arm fully extended and I was being pulled to the edge of the platform.”
- Jenny knew what was about to happen, but when she was pulled to the edge of the platform, she had no choice but to step off. Her ring finger was amputated when she fell to the floor below.
- “Now I know why rings were prohibited in my work area. It’s the same reason I have to wear my ring on my right hand,” notes Jenny.

#### ***Band Saw Operator’s Thumb Amputated While Daydreaming***

- Although not as obvious as loose clothing or jewelry, the hazards of complacency and distraction while working in close proximity to hand hazards can be equally damaging. As Frank Johnson figured out, a simple daydream can quickly turn into a nightmare.
- “I was daydreaming the day I lost my thumb. It’s hard to believe now, but I had gotten so used to my job I just didn’t think about what I was doing,” says Frank. “My job included cutting lengths of material on a band saw. I had a form set up to get the length right, so all I had to do was keep pushing material through.”
- “After work, I was going to the driving range to try out a new club I had been saving for, and in my mind, I was visualizing my stance and a new grip I’d been working on,” he adds. “In reality, I had picked up a shorter piece of stock and placing it into my form, put my right thumb directly in line with the blade.”
- “Then I did the same thing I had done a hundred thousand times before; I pushed it through.” admits Frank.

### **USE OF ASSIST DEVICES**

- In addition to staying alert, many jobs require the use of an assist device. An assist device allows you to manipulate materials or adjust machinery while keeping your hands clear of hazards.
- If your work requires the use of an assist device, use it. Many workers who thought they didn’t need it live each day with a constant reminder that they were wrong.

## **SUMMARY**

- When your work requires the use of hand protection, be sure to use it, every time.
- Never remove guarding or perform machine maintenance unless you are properly trained and authorized.
- If your job requires working in proximity to hand hazards such as moving parts or cutting blades, stay alert and focused on your job.
- Whenever possible, use an assist device to keep hands a safe distance from a machine's actions.
- Don't let complacency, production pressures or being in a hurry tempt you to take a risk or shortcut that could result in a disabling hand injury. By keeping your good safety attitude close at hand, you can be sure to come home safe and sound each day.

**LESSONS LEARNED FROM HAND INJURIES *Non-Graphic (Concise)***

**ANSWERS TO THE REVIEW QUIZ**

1. b

2. d

3. a

4. b

5. c

6. d

7. d

8. a

9. b

**LESSONS LEARNED FROM HAND INJURIES *Non-Graphic (Concise)***  
**REVIEW QUIZ**

*The following questions are provided to determine how well you understand the information presented in this program.*

Name \_\_\_\_\_ Date \_\_\_\_\_

1. Wearing the \_\_\_\_\_ protective glove is one of the most effective ways to prevent hand injuries.
  - a. Thickest
  - b. Proper type of
  - c. Most comfortable
  - d. None of the above
  
2. In the video, Sarah suffered a deep laceration across the top of her hand. What led to Sarah's injury?
  - a. Wearing an improper glove
  - b. Being distracted while talking
  - c. Cutting toward her hand with a dull blade
  - d. All of the above
  
3. A good safety practice is to be aware of the location of your hands at all times and avoid touching anything unnecessarily.
  - a. True
  - b. False
  
4. A(n) \_\_\_\_\_ is any place where a body part will fit between a moving object and a fixed surface or between two moving solid objects.
  - a. Interlock switch
  - b. Nip point
  - c. Machine guard
  - d. Running point
  
5. An "in-running nip point" is especially dangerous because of the potential to \_\_\_\_\_.
  - a. Shock you
  - b. Shut down the entire machine
  - c. Pull you farther into the hazard
  
6. Most hand hazards have safety features such as \_\_\_\_\_.
  - a. Machine guards
  - b. Light curtains
  - c. Interlock switches
  - d. All of the above
  
7. Certain jobs may create entanglement hazards because they require close proximity to moving parts, such as lathes and drill presses. An example of an entanglement hazard would be \_\_\_\_\_.
  - a. Long hair
  - b. Jewelry
  - c. Gloves
  - d. All of the above
  
8. Distractions such as daydreaming and complacency can have the potential to lead to devastating injuries.
  - a. True
  - b. False
  
9. A(n) \_\_\_\_\_ allows you to manipulate materials or adjust machinery while keeping your hands clear of hazards.
  - a. Guard
  - b. Assist device
  - c. Nip point
  - d. Hand shield