



Finger, Hand, and Wrist Injuries

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A 5-Minute Safety Training Aid

Whether the hands are of a machine operator, lab technician or office assistant—a worker's hands are one of their most important "tools" used in work. Yet over a quarter of a million people suffer serious (and often disabling) hand injuries each year. By recognizing hand hazards, following established safety guidelines, and using protective guards, shields, gloves, and other personal protective equipment, employers and workers can save hands from injury and disability.

Recognizing Hand Hazards

One of the most serious, yet common causes of hand injuries, is the use of unprotected or faulty machinery or equipment. Failures to use push-sticks, guards, and kill-switches, or follow appropriate lockout/tagout procedures, are among the leading industrial hand hazards. Wearing jewelry, gloves, or loose-fitting clothing around moving parts can also lead to injury. Chemicals, corrosives, and other irritating substances can cause burns and skin inflammation unless appropriate hand protection is used. Temperature extremes and electrical hazards are other common causes of hand injuries. In addition, constant repetitive motion (as in assembly-line work or painting) can cause undue stress on the wrists and hands unless protective measures are taken.

Eliminating and Controlling Hand and Wrist Hazards

When planning the working day, employers and workers should use the Job Safety Analysis (JSA) process to identify the hazards in each individual phase of the job task. Hand and finger positioning is the number one cause of hand injuries. Communication and teamwork are two very important areas in determining and eliminating hazards of the job. During the JSA process, ensure that everyone is aware and knowledgeable of all hazards and risks associated with the job at hand. Taking time to identify hazards can eliminate most potential hazards for hand injuries. The following list provides guidelines for hand safety that can help protect hands from injury and disability.



Photo courtesy University of Wisconsin-Milwaukee, Environmental Health, Safety and Risk Management Department/David Melitz

- Be alert to potential hand hazards *before* an accident happens.
- Use hand tools, do not use your HAND as the TOOL.
- Perform a JSA to identify the associated hand hazards.
- Be alert to possible unguarded pinch points.
- Use push-sticks, guards, shield, and other protective devices when appropriate. Do not remove guards.
- Remove any jewelry such as necklaces, rings, ear rings, and wristwatches. Jewelry should not be worn within an arm's length of rotating or operating machinery, tools, or electrical switch areas.
- Be aware of proper body position when working around stationary and moving equipment.
- When working with chemicals, know your hazards by reading the Material Safety Data Sheets.
- Use proper Personal Protective Equipment (PPE) and position your body a safe distance from chemicals as you work with them.
- Do not wear loose clothing, such as unbuttoned shirts and sleeves, loose shirttails, ties, and unzipped pant legs on coveralls when working.
- Inspect equipment and machinery before and after tasks to make sure that it is in good operating condition.

- When working with machinery, utilize proper guarding around moving equipment. Always replace guards when any maintenance work is completed.
- When general maintenance or repair is needed, always use proper lockout/tagout procedures specified for your work area. Ensure that all affected workers are adequately informed.
- Always wear the proper hand PPE associated with the job task. For example, wear rubber gloves when mixing chemicals, electrical gloves for any electrical work being performed, steel mesh gloves when cutting, and cotton or canvas gloves during normal daily tasks. When wearing gloves, be sure they fit properly and are rated for the specific task.
- Use brushes to wipe away debris.
- Select tools designed to keep wrists straight to help avoid repetitive motion/overuse problems.

Choosing the Right Glove

There are various ways in which fingers and hands may be injured, but the use of personal protective equipment (such as the right kind of gloves) can provide protection against many hazards.

To give adequate protection, gloves should:

- be appropriate for the job,
- fit properly, and
- be comfortable.

Choosing the right size glove will prevent the glove itself from becoming a hazard. When gloves become worn, torn, or contaminated, they should be disposed of and replaced.

Remember to be alert, follow procedures, and “Never put your hand in a place that you can not see!”

For more information on Job Safety Analysis (JSA) refer to the following Texas Department of Insurance, Division of Workers’ Compensation (TDI, DWC) publications available at <http://www.tdi.state.tx.us/wc/safety/employers.html> under “Safety Resources”:

- Job Safety Analysis STP
- Job Safety Analysis and Task Training

Remember to practice safety. Don’t learn it by accident.

This Take 5 was published with information from BP America Production Company, Occupational Safety and Health Administration and Texas Department of Insurance, Division of Workers’ Compensation.

STOP

Workplace "Jewellery" Related Accidents and Injuries

Workplace No Jewellery Program:

PHASE 1 - LeClasp Worker JEWELLERY HOLDER:

Handles the essentials of the safety initiative ... equipping employees with a Jewellery holding device where they can attach rings, earrings, bracelets, necklaces, watches, body piercings, etc. BEFORE walking in the place of work.



Item # 1250 - LeClasp Worker JEWELLERY HOLDER



PHASE 2 - LeClasp Medical Alert KEY HOLDER

Equips workers wearing Medical Alert Identification Jewellery (bracelets, necklaces) with a "non-dangling" substitute (backup, alternative) product that can SAFELY be carried & KEPT ON THEIR PERSON at all times when working in the vicinity of heavy machinery, kitchens, conveyers, tools, vehicles, etc.

Item # 1350/351/354 - LeClasp Medical Alert KEY HOLDER

For proactive employers who take reasonable steps to prevent bodily harm to workers or visitors to facilities.
Recommended across all kinds of industries and sub-sectors including industrial manufacturing and processing, warehousing, construction, oil and gas, pulp and paper, mining, agriculture, health and utilities, food processing, and other services, hospitals, chemical, electrical, transportation, public works, fisheries, military, etc. (Hamm... Did we forget someone?)

SAFETY FIRST REMOVE VISITOR AND ATTACH YOUR JEWELLERY HERE!

SAFETY FIRST VISITOR JEWELLERY HOLDER

SAFETY FIRST STUDENT JEWELLERY HOLDER

SAFETY FIRST PATIENT JEWELLERY HOLDER

SAFETY FIRST SOLDIER JEWELLERY HOLDER

SAFETY FIRST RECRUIT JEWELLERY HOLDER

Workplace Jewellery Holders come decorated on the FRONT side with the choice of six Safety First messages.

An ounce of prevention is worth a pound of cure!

Workplace No Jewellery Program QUICKIE VIRTUAL PROPOSAL:

LeClasp No Jewellery Program (Phase 1 and 2)

PHASE 1 - Handles the essentials of the safety initiative ... equipping employees with a Jewellery holding device where they can attach rings, bracelets, necklaces, earrings, watches and piercings BEFORE walking in the place of work.

Item # 1250 - LeClasp Workplace JEWELLERY Holder comes Identified on the FRONT Side with YOUR choice of Safety First message (1A - 11D)

| MSG # | 1 | 1a | 1b | 1c | 1d | 1e | 11a |
|--|--|--|--|--|--|--|---|
| SAFETY FIRST REMOVE VISITOR AND ATTACH YOUR JEWELLERY HERE! | SAFETY FIRST VISITOR JEWELLERY HOLDER | SAFETY FIRST STUDENT JEWELLERY HOLDER | SAFETY FIRST SOLDIER JEWELLERY HOLDER | SAFETY FIRST RECRUIT JEWELLERY HOLDER | SAFETY FIRST PATIENT JEWELLERY HOLDER | SAFETY FIRST ASSOCIATE JEWELLERY HOLDER | SECURE IT! AMBITIOUS RETIREES FT ACCORDANCE US BLOOD IS <small>Preventive Discipline</small> |
| SAFETY FIRST DOCTOR JEWELLERY HOLDER | SAFETY FIRST PHYSICIAN JEWELLERY HOLDER | SAFETY FIRST NURSE JEWELLERY HOLDER | SAFETY FIRST PATIENT JEWELLERY HOLDER | SAFETY FIRST ASSOCIATE JEWELLERY HOLDER | SAFETY FIRST PATIENT JEWELLERY HOLDER | SAFETY FIRST ASSOCIATE JEWELLERY HOLDER | |

Recommended one (1) per worker

Item # 1252 - Extra Organization Logo and Safety Slogan on the BACK Side



ATHLETE Keyed Key Available for Sports Teams, Scouts and Coaches to Promote their Tool

PHASE 2 - Equips workers who wear Medical Alert Identification (ID) Jewellery with a "non-dangling" SUBSTITUTE that can be worn safely and kept on their person at all times in the workplace.

Item # 1350 - LeClasp KEY HOLDER comes Identified on the front and back sides with worker emergency Medical Alert ID information (50A - 50D)

| SYMBOL # | 51A | 52D | 53D | 54C | 55A | 55C |
|---|---|--|--|--|--|---|
| MEDICAL ALERT <small>WARNING: DIABETIC</small> | MEDICAL ALERT <small>WARNING: COMMON BRASS</small> | MEDICAL ALERT <small>WARNING: ALLERGIC DISABILITY</small> | MEDICAL ALERT <small>WARNING: PENCILLIN</small> | MEDICAL ALERT <small>WARNING: INSULIN</small> | MEDICAL ALERT <small>WARNING: EPI PEN</small> | MEDICAL ALERT <small>WARNING: ON COULMAN</small> |

Item # 352 - For more than two (2) conditions, allergies and prescribed meds, we recommend the LeClasp KEY HOLDER Identified with a Generic "See Wallet Card" Symbol (59A) on the front side and, comes with a Free Emergency Contact and Medical Information Wallet Card that workers fill in themselves.

Emergency Medical Card (Carry, Available - 59A)

Name (Name & Title or Birth (for assistance))

Address (Home or Business)

Emergency contact (provide a relative or car emergency)

1. Physician (Name, Specialty, Hospital, etc.)

2. Family (Name, Relationship, Home/Work/Cell, etc.)

3. Other (Name, Relationship, Home/Work/Cell, etc.)

Emergency Medical Card (Carry, Available - 59A)

WARNING: ALLERGIC DISABILITY

ALLERGIC REACTIONS: (Name of allergen, symptoms, treatment)

PRESCRIBED MEDICATIONS: (Name of medication, dosage, frequency)

OTHER MEDICAL CONDITIONS: (Name of condition, symptoms, treatment)

EMERGENCY CONTACT: (Name, Phone Number, Address)

Date filled: _____ Signature: _____

MEDICAL ALERT WARNING: SEE WALLET CARD

59A

LeClasp Safety Products and Solutions:

Item #1350 - LeClasp Medical Alert ID Key Holder (Personalized)

MSG # **A B C D E F G**

1352 - LeClasp Key Holder with choice of PERSONALIZED Medical Alert ID Symbols. Choice 36+ conditions, allergies, meds, etc.)

Medical Conditions



57 **MEDICAL ALERT CUSTOM ID**

If your medical alert identification symbols are not found above, simply supply us the details and we'll custom imprint it.

LeClasp Safety Products and Solutions:

Item #1352154 - LeClasp Medical Alert ID Key Holder (Generic)

MSG # **A B C D E F**

1352 - LeClasp Key Holder with choice of GENERIC Medical Alert ID Symbol and comes with one (1) wallet card



1354 - Emergency Contact and Medical Information Wallet Card

Emergency Contact (personne à rejoindre en cas d'urgence)
Contact Information
 Remplissez les renseignements à rejoindre

Name (Nom) & Date of Birth (de naissance):
 1. _____
 2. _____
 1. _____
 2. _____

Emergency contact (personne à rejoindre en cas d'urgence):
 Physician (médecin) - Specialty (spécialité) - Tel. (tel.)
 1. _____
 2. _____
 Family/Physician/Workplace (famille/médecin/travail) - Tel. (tel.)
 1. _____
 2. _____

Medical Information (voir revers) - Renseignements Médicaux (voir verso)

Emergency Wallet Card (Carte Portefeuille d'urgence)
Medical Information
 Remplissez les renseignements médicaux

Known medical conditions, all current medications (dosage), allergies, implants, special needs, personal history, (Renseignements médicaux, médicaments actuels, allergies, appareils/implants, besoins particuliers, demandes spéciales):
 1. _____
 2. _____
 3. _____
 4. _____
 5. _____

Date (date): _____
 Signature: _____

Front Side Information

1360 - NEW Larger-Sized Medical Alert ID Card
 com for Employee Badges

Back Side Information

- Designed to be **CLIPPED ON** with
 1) Employee Photo ID/ Access/ Security swipe badges, or 2) when applicable, near equipment where employee works. (Also compliant with Membership/ School/child ID/Trade Show/ Event/etc. passes & cards.)
- Worker confidentially fills in personal Contact and Medical Information
- Recommended for workers with three (3) or more issues
- Seven lines for worker to fill in medical info including conditions, allergies, prescribed meds, etc.
- Comes with bull dog hole, compliant to ALL badge holders, incl. popular retractable clip holders, polypropylene neck wallets, vinyl badge holders, neck secure and breakaway lanyards.
- Larger size card makes emergency info easily visible (accessible) beneath badges, cards and passes by medic/sdoctor/snurses.



Actual Size - 2.5" X 4.25"

This Little Piggy...

SFC DAVID ALAN MELANCON
3rd Brigade, 1st Cavalry Division
Fort Hood, TX



Have you ever noticed most accidents happen when you least expect them? Well, there I was, just coming in from a field training exercise (FTX) and about to perform a simple task when an accident happened to me. I certainly wasn't expecting to wind up in the hospital that January day.

I'm a Bradley systems maintainer and maintenance platoon sergeant for a forward-support company. We'd just completed the FTX in preparation for a deployment to the Joint Readiness Training Center and, after that, possibly Iraq. We were tired after spending 3 weeks in the field, but it was almost over—all we had left to do was clean our vehicles. At about 1700, the last of the vehicles were staged at the wash rack, so we went to work.

Everything about this day was relatively normal, with one notable exception: that morning, I'd taken my wedding ring off my dog tags and slipped it back on my left-hand ring finger. I figured since our training was over, wearing my ring was no big deal. I say this is notable because I always wear my ring around my dog tags when I'm on duty, especially in the motor pool or in the field. I'd spent a year in Iraq during Operation Iraqi Freedom II, and the only times I put on my ring were when I left for R & R leave and when my unit redeployed home. That system worked well, and thankfully I came home not only alive but with all 10 fingers!

I needed to get my wet-weather gear, which was in a shelter on the back of an LMTV trailer. I climbed on the trailer, got my things, and grabbed the right side rail for balance as I prepared to climb back down. Unfortunately, my foot slipped as I stepped on the lower bumper, and I began to fall. My hand slid down the rail as I moved toward the ground, and my ring caught in one of the U-shaped grooves used for securing canvas covers on the trailer. I was horrified as I looked at my finger. The skin and most of

the tissue on my ring finger was completely gone, and the bone from the first joint just above my fingernail was missing. I called out to the other guys and said, among other choice words, "Hey, get a medic, get the aid bag—I've lost my finger!"

Needless to say, I was in a lot of pain. Another Soldier got a combat lifesaver bag and pulled out a pressure bandage, which I wrapped around what was left of my finger. The commanding officer dialed 911 and had a pickup truck brought off the roadway so I could sit down and take off my helmet, weapon, and vest. We were only about 4 minutes from main post, so the ambulance arrived fairly quickly, and took me to the emergency room at Darnell Army Community Hospital.

The doctors there told me the damage to my finger was so extensive they didn't know if any attempted repair would work. The tissue, nerves, and vessels were torn horizontally, and reattaching my finger would require 8 to 10

hours of surgery with no guarantee of success. In fact, there was only a 20-percent chance my finger wouldn't have to be amputated even with surgery due to the nerve and vessel damage, which reduced blood circulation in the injury to zero.

I faced a tough decision. The doctors told me my best course of action would be amputation because I would have a good chance of full recovery after rehabilitation. They let me decide, however, and after talking with my wife, I gave the doctors permission to amputate. They performed surgery that night, and my finger was amputated to the first joint—ironically, at the same place my wedding ring had rested just that morning.

It's been about 2 months since the accident, and I recently started rehab. I still feel a lot of pain, not just in my hand but all the way up my arm. The doctors explained some of the ligaments and tendons in my arm were pulled during the accident, and I'll experience phantom pain the rest of my life. I've lost about half the gripping power in my hand, which isn't good since I'm left-handed. I'll have to learn how to

write and type again, but I can shoot right-handed—a definite plus for a Soldier. My long-term prognosis is pretty good, though; the doctors tell me that after about 4 months of occupational therapy I should be back to normal. I share this story in the hope I'll open another Soldier's eyes and prevent them from making the same mistake. The doctors predict I'll be able to deploy back to theater with my unit later this year, but I could just as easily have lost my career that winter afternoon. Believe me, I'll do everything in my power to make sure I deploy with the Soldiers I've trained because I know they need me. I think it'll be a morale booster if my Soldiers can look at me and say, "If he lost a finger and is still here with us, we can do anything."

I'll be wearing my wedding ring on my right hand from now on, but I promise you this: I'll take it off whenever I put my uniform

on, no matter what's planned that day. You never know what might happen. I survived a year in Iraq unharmed only to come home and lose my finger because I was tired and wasn't thinking straight. Stay alert and realize even the simplest of tasks can hurt you in a big way. If it can happen to me, it can happen to you too!

Editor's note: SFC Melancon would like to thank his team of doctors, led by LTC John J. Falliace at Darnell Army Community Hospital, for their outstanding care during his hospitalization and subsequent rehabilitation. He also would like to thank the Soldiers, NCOs, and officers of Delta Company, 215th BSB and 6th Squadron, 9th Cavalry for their continued support. "FIRST TEAM!"

Contact the author via e-mail at david.alan.melancon@us.army.mil.

Giving the Finger

This soldier injured his pinky finger while serving in Iraq during the first year of conflict. The injury itself isn't very remarkable and he made a full recovery, but notice the ring next to the injured finger. It's never safe to wear rings or other jewelry in a field or combat environment. If the ring gets caught on something, you risk either a degloving injury (i.e., all the skin peeled off) or total amputation. Both injuries hurt a lot, so keep your ring in a safe place—not on your hand—when you're on duty.

Special thanks to LTC Roman Blynsky, MD, who submitted this photo from his time with the 4th Infantry Division in Iraq.



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**A Finger or a Ring?
The choice is Yours.**

