



# Safety Matters

Humphreys University  
Department Safety Manual

2025



Humphreys  
University  
EST. 1896



# **Safety**

Matters

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# Health and Safety Policy Statement

Humphreys University is committed to preventing the accidental harm to or loss of any of its resources, including physical assets and, most importantly, its employees and students.

In fulfilling this commitment to protect both people and property, management will provide and maintain a safe and healthy work environment in accordance with industry standards and in compliance with legislative requirements and we will strive to eliminate any foreseeable hazards which may result in property damage, accidents, or personal injury/illness.

We recognize that the responsibility for health and safety are shared. All employees will be equally responsible for minimizing accidents within our facilities and in their work stations. Safe work practices and job procedures will be clearly defined in our Health and Safety Manual for all employees to follow.

Accidental loss can be controlled through good management in combination with active employee involvement. Safety is the direct responsibility of all managers, supervisors, employees, and staff.

All management activities will comply with our safety requirements as they relate to planning, operation and maintenance of facilities and equipment. All employees will perform their jobs properly in accordance with established procedures and safe work practices.

I trust that all of you will join me in a personal commitment to make safety a way of life.

Dr. Robert Humphreys, Jr.

President



# **Safety**

**Matters**

## **Emergency Contacts**

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# Emergency Phone Numbers

## STOCKTON CAMPUS

<b>Fire Department</b>	Stockton Fire Department:	911 or (209) 464-4646
	City of Stockton Police:	911 or (209) 937-8377
<b>Police Department</b>	Stockton Police Department	911 or (209) 937-8377
	SJ Sherriff's Department	911 or (209) 468-4421
	California Highway Patrol	(209) 943-860
<b>Ambulance</b>	911	
<b>Hospital</b>	St. Joseph's Medical Center	(209) 953-2000
	1805 N. California Street, Stockton, CA	
	Dameron Hospital	(209) 944-5550
<b>Walk-In Clinic</b>	525 Acacia St, Stockton, CA 95203	
	Stockton Health Center	(209) 468-3830
<b>Sonitrol</b>	1601 E. Hazelton Ave, Stockton, CA	
	1-877-SONITROL (1-877-766-4876)	
<b>Bay Alarm</b>	1-800-470-1000	
<b>PG&amp;E</b>	1-800-PGE-5000 (1-800-743-5000)	
<b>Water Department</b>	24-Hour Emergency Service Center	(209) 937-8341
<b>Poison Information Center</b>	1-800-222-1222	
<b>Head Office</b>	(209) 478-0800	





# **Safety**

**Matters**

## **Training Summaries**

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## Training Summaries

Title	Required for Administration	Required for Maintenance
Accept It– It’s Yours	✓	✓
Back Injury Prevention—Safe Lifting	✓	✓
Back Safety– Think Before You Lift	✓	✓
Basic Stretches	✓	✓
Carpal Tunnel Syndrome	✓	✓
Chair Safety	✓	✓
Cold Stress		✓
Earthquake Preparation	✓	✓
Emergency Action Plan—Fire	✓	✓
Ergonomics—Workstations	✓	✓
First Aid—Basics	✓	✓
Heat Stress		✓
Holiday Food Safety	✓	✓
Office Ergonomics—Work Posture	✓	✓
Safety Data Sheets	✓	✓
School Safety—Security Risks	✓	✓
School Safety—Students Who Cause Violence	✓	✓
Workplace Conservation	✓	✓
Workplace Safety—The Role of Staff	✓	✓
Workplace Substance Abuse	✓	✓

## Accept It - It's Yours

### **“Accident Prevention is Everyone’s Responsibility”**

You have probably heard the above TRUE statement more times than you can remember! Safety has to be the responsibility of every one of us. No one person can constantly watch, guide, and instruct every operation every day.

Our organization’s management team is very concerned with your safety. However, no one person is more important than you when it comes to doing your job in a safe manner.

You should know how to do your job safely which requires a level of risk awareness beyond your immediate task. The training that you have received, the established work procedures, the general safety rules, and the use of common sense all provide the basis for you and your co-workers to go home after work healthy and free of injuries... and that is very important to everyone.



### **As an employee of Humphreys University, you are responsible for:**

1. Asking questions related to task/job hazards and the safety controls designed to reduce or eliminate their occurrence or impact.
2. Ensuring you have the proper PPE as defined by task/operation-specific hazard analysis and that it is working order.
3. Ensuring all required training is completed within the mandated timeline.
4. Abide by all company safety policies and procedures and questioning the same where misunderstanding may result in a loss event.
5. Preventing or halting co-workers from engaging in at-risk behaviors through active and passive observation and awareness.
6. Actively participating in safety awareness initiatives and committees.

**Please remember:** Your responsibility for safety and accident prevention does not stop when you leave the jobsite. At home, behind the steering wheel, even when on vacation, you need to keep a watchful eye on safety. Not just for your own well-being, but also for the well-being of those you care about.

**Accept your responsibility and try to make every activity, whether it is at work or during your free time, as safe as possible.**



# Back Injury Prevention—Safe Lifting

There are nearly 500,000 disabling injuries on the job every year and most of these injuries occur to the back due to improper lifting techniques. Accident research indicates that 23% of all workplace injuries occur while lifting or moving heavy materials incorrectly. Injuries of this nature are painful and sometimes career-ending.

However, these incidents can be avoided by observing and practicing the following proper lifting procedures:

- **Check weight and size:** A bulky, awkward load can cause more strain than a compact, heavier one.
- **Plant your feet firmly:** They should be about shoulder width apart.
- **Watch for sharp edges:** Get a good grip before lifting.
- **Bring the load as close to your body as possible.**
- **Keep your back straight:** Bend at the knees instead of the waist.
- **Lift with your legs:** Lift slowly, without jerking, by pushing up with your legs.
- **Don't twist your body with the load:** Shift your feet in the direction of travel.
- **Ask for help:** Is the load too big, too long, or too heavy? If in doubt, consult your supervisor, and never feel ashamed to ask for help.



**Acute bending can easily strain the back. When lifting, never bend at the waist, and always lift with your legs!**

# Back Safety– Think Before You Lift

## Before you lift something, ask yourself these questions:

- How heavy is the load?
- Will it be awkward to control?
- Should I ask for help?
- Can it be moved mechanically with available equipment?
- Is it in an accessible position?
- Does it have sharp edges?
- Will it be slippery?
- Do I need gloves or other protection?
- Is the new location accessible and ready to accept the item?
- Is my pathway clear?
- Will I be able to see where I am going?
- Is there a safe way to grip the load?



**Get a Better Grip!**

## Lift correctly:

- Your footing is a very important part of lifting. Your feet should be:
  - Close to the object.
  - Shoulder-width apart for good balance.
  - Kept with one foot slightly ahead of the other to help keep your center of gravity under control.
- Bend your knees and go down to a crouch - not to a full squat. It takes double the effort to stand up from a full squat as it does from a crouch.
- Keep your back as straight and vertical as possible.
- Get a good, firm grip. Do not lift until your hold is strong and slip-proof.
- Lift up by straightening your legs. Keep the load close to your body.
- If you have to change direction, don't twist your body; move your feet as you turn.
- When setting the load down:
  - Keep your back straight.
  - Bend your knees just as you did when you lifted the object.

## Be extra careful if you have not lifted recently:

Muscles can weaken and tighten while you are away on weekends, vacations, or sick-days, so use extra caution on your first day back. Your physical condition and muscle stretching and toning are important *before* lifting begins each day.

## Be smart:

If your load can be moved mechanically or if you can simply ask someone to help you, take that advantage and don't risk injuring your back. **It's not worth it.**

# Basic Safety– Your Behavior is Critical

## Examples of behaviors that must be avoided at all times:

Most incidents involve an unsafe behavior or decision factoring directly or indirectly into the severity or root cause.

- Walking under suspended loads.
- Blocking out or bypassing safeguards.
- Using an ungrounded portable electric hand tool.
- Bypassing a lockout process.
- Wiping off oil from operational in-running rolls.
- Lifting loads that are too heavy or awkward.
- Overloading a scaffold or forklift.
- Bypassing any established safety procedure or device.
- Taking a shortcut by climbing over a moving conveyer belt.
- Chipping or grinding without safety glasses or goggles and a face shield.
- Cleaning parts with flammable solvents, especially in poorly-ventilated areas.



## Ways to promote a safe work environment:

The bottom line is this... if all employees understand the hazards and safe behaviorism and does his or her part, many accidents can be avoided or severity minimized.

- Involve employees in the identification, discussion, and documentation of hazards.
- Periodically audit yourself against applicable industry regulations and standards.
- Make sure appropriate controls are in place and operational – periodic inspection and maintenance is critical.
- Investigate every incident to root cause and communicate findings and correct deficiencies.
- Assure that training is done to build an awareness of “critical behaviors” for each task and that it is repeated frequently enough and immediately following modifications impacting operational hazards.
- Perform safety observations to encourage safe behaviors.
- Recognize people who perform tasks safely and demonstrate proper behaviors.
- Perform refresher trainings at employee meetings to ensure that all employees remember safety procedures.

**A successful safety system includes: Being aware of the hazards of tasks, knowing the critical behaviors, and following them!**

# Basic Stretches

## Who Do We Stretch?

- Stretching is useful for both injury prevention and treatment.
- Stretching increases flexibility which directly translates into reduced risk of injury. Stretching allows a greater range of motion, making you less likely to experience an injury.
- Stretching enhances your balance, coordination, and circulation.
- Stretching increases blood flow to your muscles. Improved circulation can speed recovery after muscle injuries.
- Flexible muscles can improve your daily performance on tasks such as lifting and bending.
- Stretching promotes better posture. Frequent stretching keeps your muscles from getting tight, allowing you to maintain proper posture and minimize aches and pains.
- Stretching can relieve stress. It relaxes the tense muscles that often accompany stress.
- Stretching before work-related tasks focuses people on working safely.

## Tips for stretching safely:

- If you are being treated by a medical provider, follow their instructions.
- Stretching is a key part of your exercise program.
- Stretching before work or physical activity can prepare your body for exercise.
- Stretching after work promotes a better range of motion for your joints.
- When you're stretching:
  - Stay within your comfort range. Expect to feel some tension while you're stretching. If you feel pain, you've gone too far.
  - Move slowly and support your body.
  - Hold each stretch for 10-15 seconds.
  - Breathe freely as you hold each stretch; try not to hold your breath.



## SOME STRETCHING ESSENTIALS

### Target major muscle groups:

- When you're stretching, focus on your calves, thighs, hips, lower back, neck and shoulders.
- Stretch muscles and joints that you routinely use, at work or play.

### Warm up first:

- Stretching muscles when they're cold increases your risk of injury, including pulled muscles.
- Warm up by walking while gently pumping your arms, or do a favorite exercise at low intensity for five minutes.
- Remember to stretch after you exercise, when your muscles are warm and more receptive to stretching.

### How often to stretch:

- As a general rule, stretch before and after a manual task or exercise, as well as after being in a static posture (e.g., driving).

**Taking a few minutes to do a series of stretches can make your whole body feel better. Stretch spontaneously throughout the day whenever you feel tense.**

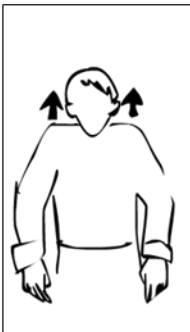
# Basic Stretches

## Example Stretches:

Wrist Extensions



Shoulder Shrug



Shoulder/Chest Stretch



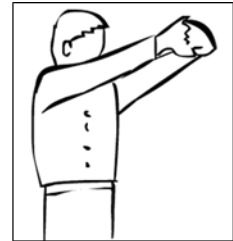
Neck Stretches



Shoulder and Arm Stretches



Arm Stretches



Back and Abdominal Stretches



# Carpal Tunnel Syndrome

## What is carpal tunnel syndrome (CTS)?

CTS occurs when the median nerve, which runs from the forearm into the hand, becomes pressed or squeezed as it passes through the carpal tunnel in the wrist.

The result includes:

- Pain
- Tingling
- Weakness
- Numbness
- Restricted wrist movements

## What causes carpal tunnel syndrome?

CTS has many causes, though usually it is a combination of many factors, including:

- A genetic predisposition or normal aging can cause the sheath around the wrist tendons to become thick and sticky.
- Highly repetitive tasks.
- Constant exertion.
- Awkward wrist positioning.
- Repeated use of vibrating tools.
- Damage to the bones from injury or other trauma in the hand or wrist, resulting in pressure in the carpal tunnel.

It should be noted that more common disorders such as bursitis and tendonitis in the wrists have similar symptoms as CTS and can be caused by repetitive and forceful motions of the hands.





# Carpal Tunnel Syndrome

## How is carpal tunnel syndrome treated?

The diagnosis and treatment of carpal tunnel syndrome by a qualified medical provider should happen as early as possible and may include:

- Resting the affected hand and wrist for at least two weeks.
  - Avoiding activities that may worsen the symptoms.
- Immobilizing the wrist in a splint to avoid further damage from twisting or bending.
- Taking anti-inflammatory drugs as instructed by a medical professional, such as:
  - Aspirin
  - Ibuprofen
  - Other nonprescription pain relievers
- Hand and wrist stretching and strengthening exercises can be helpful for people whose symptoms have abated.
- Surgery and post-op physical therapy is often successful as a last resort.

## Can carpal tunnel syndrome be prevented?

Proper work habits, such as the following, can reduce the chances of having CTS:

- Physical conditioning and stretching exercises.
- Taking rest breaks from repetitive activities.
- Wearing supports or splints to keep wrists straight.
- Proper adjustment of workstations to ensure correct posturing and wrist positioning.
- Taking vibration dampening measures (gloves, pads, slings) when using vibrating tools.
- Job rotation or alternating tasks.
- Adapting workplace conditions and job demands to the capabilities of worker.

**In severe cases, CTS can result in permanent nerve damage. However, if diagnosed and cared for early, CTS is very treatable and will not create long-term problems.**





# Chair Safety

Rarely do we think, “Is this chair safe?” as we are sitting down, but that is a very reasonable question. Typing “Chair Collapse” into any Internet search engine will produce innumerable stories like the following:

- “A woman who fell to the floor when her chair broke has sued the manufacturer of the chair. Her chair collapsed and caused her to sustain personal injuries, incur medical bills, and be absent from her usual pursuits for a period of time.”
- “Chair Recall: Faulty support brackets and/or weak frames can cause the chairs to collapse, posing a fall and severe laceration hazard to consumers.”
- “A woman who suffered back and leg injuries when a chair collapsed won reinstatement of a \$725,000 jury award from the state’s court of appeals.”

Daily chair inspections are simple and effective at reducing the probability of having a chair related incident. Use the following checklist to identify a problem before an injury occurs. Always check with the manufacturer or distributor for specific inspection and maintenance information.

- At first glance, does the chair appear to be in good condition? Is it sitting level?
- Is the chair properly adjusted for its intended use?
- Are the arms and legs securely fastened?
- Is the back securely fastened?
- If there are welds, are they completely sealed and crack free?
- Is pivoting in the chair likely to pinch fingers?
- Is the chair wobble-free?
- Is the chair so old that it is beyond its serviceable life?
- Are all fasteners tight and strong?

All chairs should be inspected daily and before peak service periods. If a chair is defective or if its integrity is in doubt, immediately remove it from service, so that it can be either repaired or discarded.



# Cold Stress

## It's cold outside! Are you ready?

Weather can often be unpredictable and extreme, causing unseen risks and situations. In such temperamental weather, extreme freezing temperatures can create serious health problems.

- Near freezing weather and strong winds can cause a person to lose body heat much quicker than normal.
  - These two drastic weather conditions are the two major factors that lead to “cold stress.”
- The symptoms of cold stress are brought on by exposure when working long periods of time in extreme cold, or when working in poorly insulated or heated areas.
- Those that are unaccustomed to freezing weather are more likely to experience cold stress.
- Below are a few possible symptoms of cold stress to watch out for!



## Hypothermia:

- The body cannot create enough heat to keep itself warm during long periods of time spent in freezing weather.
- After our body runs out of stored energy it results in an abnormally low body temperature. This is when hypothermia can cause some serious problems.
- The brain can be affected, making it difficult to think clearly or move well.
- Most people are unaware that they are even being affected by hypothermia until serious problems occur.

## Frostbite:

- Unlike hypothermia, frostbite is an injury to the outside of your body and is a symptom of freezing temperatures.
- After lengthy exposure to freezing weather the victim may lose feeling and color in the affected areas.
- Frostbite most often affects the extremities; i.e., nose, ears, cheeks, chin, fingers, or toes.
- Damage can permanently destroy body tissue and in worse case scenarios lead to amputation.

## Trench Foot:

- Trench foot, also known as immersion foot, is an injury that can happen in temperatures as high as 60 (°F).
- Immersion foot is when a person's feet are exposed to wet and cold conditions for extended periods of time. Wet feet lose heat 25 times faster than dry feet, which is why this injury can be so severe.
- When the body attempts to save heat it constricts blood vessels and circulation to the feet slows down.
- The lack of blood flow, oxygen, and nutrients to the foot can cause the skin to die.

## **Chilblains:**

- Chilblains, also known as “Pernio” and “Perniosis” is another cold stress issue and can be caused by temperatures between freezing and 60 (°F).
- Chilblains are caused by repeated prolonged exposure of skin to cold temperatures.
- It can cause permanent damage to the capillary beds in the skin.
- This could lead to reoccurring redness and itching when exposed to cold weather.
- It often affects the body’s extremities; e.g., face, hands, ears, as well as any areas that are unprotected from cold temperatures.

**Protect your employees!** Follow these helpful tips to prevent cold stress from affecting workers:

- When scheduling repairs and maintenance consider the month of the year and time of day. Schedule cold jobs for warmer times.
- Reduce the physical demands by assigning additional workers for extra long and demanding jobs.
- Set up a warm area with warm beverages for workers to take breaks and rest.
- Monitor and train workers who are at risk for cold stress. Give them information about inherent risks, prevention, symptoms, available treatment, and required personal protective equipment.

**Recommendations for workers:** Stay warm and safe by following a few helpful tips:

- Wear appropriate clothing, such as wearing multiple layers of loose clothing.
- Protect the ears, face, hands and feet in extreme cold weather by wearing a hat and waterproofed and insulated boots.
- During breaks move to a warm area and limit your time outside.
- Always carry cold weather gear, such as extra socks, gloves, hats, jackets, blankets, change of clothes and a thermos of hot liquid.
- Avoid touching cold metal surfaces with bare skin.
- Be aware and monitor yourself and your coworkers for signs of cold stress.

# Earthquake Preparation

An earthquake is a sudden, rapid shaking of the ground caused by the breaking and shifting of rock beneath the Earth's surface. This shaking can cause buildings and bridges to collapse; disrupt gas, electric, and phone service; and sometimes trigger landslides, avalanches, flash floods, fires, and huge, destructive ocean waves (tsunamis).

Buildings with no foundations, or foundations resting on unconsolidated landfill, old waterways, or other unstable soil are most at risk. Earthquakes can occur at any time and without warning.

“Aftershocks” can occur after an earthquake. These are smaller earthquakes that follow the main shock and can cause further damage to weakened buildings. After-shocks can occur in the first hours, days, weeks, or even months after the quake. Be aware that some earthquakes are actually foreshocks, and a larger earthquake might occur.

## What hazards are associated with earthquakes?

When an earthquake occurs in a populated area, it may cause deaths and injuries and extensive property damage. Most earthquake-related injuries result from collapsing walls, flying glass, and falling objects as a result of the ground shaking, or people trying to move more than a few feet during the shaking. Much of the damage in earthquakes is predictable and preventable.



## What are the best practices to follow during an earthquake?

- 1) STAY CALM
- 2) If you are inside, stand in a doorway or crouch under a desk or table, away from windows or glass dividers
- 3) If outside, stand away from buildings, trees, and electric lines
- 4) If on the road, drive away from underpasses/overpasses, stop in a safe place and stay in your vehicle.

## After an earthquake:

- 1) Check for injuries – provide first aid
- 2) Check for safety – look for gas, water, or sewage breaks, downed electric lines and short circuits. Turn off appropriate utilities, and stay away from building damage and potential safety problems, such as cracks in chimneys or foundations
- 3) Clean up dangerous spills
- 4) Listen for instructions from public safety agencies. In order to avoid overloading the system, only use the telephone for emergencies

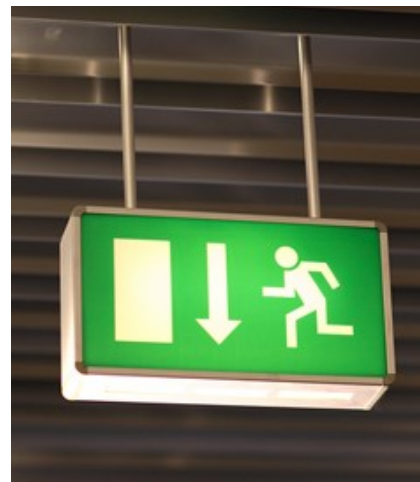
## Three things to know:

- 1) How to turn off gas, water and electricity
- 2) First aid – the more you know, the better
- 3) Humphreys University's Emergency Action Plan

# Earthquake Preparation

## What can I do to prepare before an earthquake occurs?

- Pick "safe places". A safe place could be under a sturdy table or desk or against an interior wall away from windows and bookcases, or tall furniture that could fall on you. The shorter the distance to move to safety, the less likely you will be injured. Injury statistics show that people moving as little as 10 feet during an earthquake's shaking are most likely to be injured.
- Practice drop, cover, and hold-on in each safe place. Drop under a sturdy desk or table and hold on to one leg of the table or desk. Protect your eyes by keeping your head down. Practice these actions so that they become an automatic response.
- Practice drop, cover, and hold-on at least twice a year. Frequent practice will help reinforce safe behavior. When an earthquake or other disaster occurs, many people hesitate, trying to remember what they are supposed to do. Responding quickly and automatically may help protect you from injury.
- Wait in your safe place until the shaking stops, then check to see if you are hurt. You will be better able to help others if you take care of yourself first, then check the people around you. Move carefully and watch out for things that have fallen or broken, creating hazards. Be ready for aftershocks.
- Be on the lookout for fires. Fire is the most common earthquake-related hazard, due to broken gas lines, damaged electrical lines or appliances, and previously contained fires or sparks being released.
- If you must leave a building after the shaking stops, use the stairs, not the elevator. Earthquakes can cause fire alarms and fire sprinklers to go off. You will not be certain whether there is a real threat of fire. As a precaution, use the stairs.
- If you're outside in an earthquake, stay outside. Move away from buildings, trees, streetlights, and power lines. Crouch down and cover your head. Many injuries occur within 10 feet of the entrance to buildings. Bricks, roofing, and other materials can fall from buildings, injuring persons nearby. Trees, streetlights, and power lines may also fall, causing damage or injury.
- Inform workers of the plan. Everyone in your workplace should know what to do if an earthquake occurs.
- Get training. Take a first aid class from your local Red Cross chapter. Get training on how to use a fire extinguisher. Keep your training current. Training will help you to keep calm and know what to do when an earthquake occurs.
- Discuss earthquakes with workers. Everyone should know what to do. Discussing earthquakes ahead of time helps reduce fear and anxiety and lets everyone know how to respond.





# Earthquake Preparation

## Who can enter a collapsed structure?

Following a catastrophic failure of a structure, rescue workers and emergency responders may be required to enter the collapsed structure. Emergency responders include authorized and trained firefighters, police, emergency medical technicians, construction workers and government representatives. Emergency responders may be responsible for assisting survivors, extinguishing fires, shutting off utilities, assessing structural instabilities, shoring-up safe paths into the structure and assessment of other hazards such as airborne contaminants. Rescue workers such as Urban Search and Rescue Teams focus on finding survivors and later removing victims from collapsed structures.

## What is the organizational structure for the response to these events?

Although these catastrophic events may initially be quite chaotic, eventually site management needs to be under a unified command such as the recognized Incident Command Structure. Local responders and rescuers will obviously respond first with the State requesting Federal Emergency Management Agency (FEMA) assistance if warranted.

## What safety and health resources are available during a collapsed structure response?

Once the Incident Command System is established at a collapsed structure, the Incident Commander maintains accountability for all response personnel at the scene. A Safety Officer may also be mobilized and report directly to the Incident Commander. The Safety Officer is responsible for monitoring and assessing the safety aspects of the responders during the collapsed structure event. The Safety Officer's responsibilities may include:

- Overseeing all safety and health aspects of response personnel
- Assuring that optimal safety and injury prevention is practiced
- Investigating and documenting all response team injuries and illnesses
- Preparing and maintaining entry permits
- Ensuring that appropriate personal protective equipment (PPE) is used
- Developing and implementing daily health and safety plans which address
  - (1) sanitation,
  - (2) hygiene,
  - (3) Personal Protective Equipment (PPE),
  - (4) Decontamination,
  - (5) work/rest cycles,
  - (6) acute medical care, etc.
- Interviewing off-going shifts to assess developing hazards
- Assessing risk for the identified hazards
- Training in hazard awareness and use of PPE
- Assessing structural instabilities



# Earthquake Preparation

## What hazards may be encountered when entering a collapsed structure?

The following hazards should be considered in order to protect rescue workers and emergency responders when preparing to enter a collapsed structure:

- Water system breaks that may flood basement areas
- Exposure to pathogens from sanitary sewer system breaks
- Exposed and energized electrical wiring
- Exposure to airborne smoke and dust (asbestos, silica, etc.)
- Exposure to bloodborne pathogens
- Exposure to hazardous materials (ammonia, battery acid, leaking fuel, etc.)
- Natural gas leaks creating flammable and toxic environment
- Structural instability
- Insufficient oxygen
- Confined spaces
- Slip, trip or fall hazards from holes, protruding rebar, etc.
- Being struck by a falling object
- Fire
- Proximity to heavy machinery such as cranes
- Sharp objects such as glass and debris
- Secondary collapse from aftershock, vibration and explosions
- Unfamiliar surroundings
- Adverse weather conditions
- Noise from equipment (generators/heavy machines)
- Overhead hazards and falling objects
- Fall Hazards
- Slip and trip hazards and more!

## The items listed below won't prevent an earthquake, but they will aid you in the aftermath.

Check list of suggested survival items to keep on hand

- Battery powered radio with extra batteries. Batteries should be checked every 2-3 months
- Flashlight with extra batteries
- First aid kit – stocked with specific medicines

needed

- First aid book
- Fire extinguisher
- Adjustable wrench for turning off gas and water
- Smoke detector
- Warm clothing and bedding
- Portable fire escape ladder for homes/apartments with multiple floors
- Bottled water – a week's supply of a quart per day, per person (If you store water for an extended period of time, have liquid bleach available for purification)
- A week's worth of canned and dried foods for each member of your household. **Note:** Both water and food should be rotated so as to maintain freshness. Non-electric can opener
- Portable stove (butane or charcoal). **Note:** Use of stoves should not take place until it is determined that there are no gas leaks in the area. Stoves must be used in safe well ventilated areas, and can produce carbon monoxide poisoning
- Matches
- Telephone numbers for police, fire department and doctors
- Sturdy shoes and work gloves
- Power generator
- Rechargeable batteries





# Emergency Action Plan– Fire

## **In Case of Fire: Should staff evacuate the building or be prepared to fight small fires?**

Fire is the most common type of emergency for which organizations must plan. One important decision to make when writing your Emergency Action Plan is whether or not staff will fight small fires with portable fire extinguishers or simply evacuate the building.

A small fire can often be put out quickly by trained staff using a portable fire extinguisher. However, to do this safely, the staff must be trained and understand the use and limitation of portable fire extinguishers, and the hazards associated with fighting fires.

Emergency Action Plans that authorize some or all of the staff to fight fires must, therefore, require considerably more training and resources than those that only stipulate building evacuation.

Choosing to evacuate the workplace rather than to authorize fire-fighting will most effectively minimize the potential for fire-related injuries. Other factors, however, such as the availability of a public fire department and the vulnerability of exit routes, enter into the decision.

## **Employee Evacuation**

All staff who is not authorized to fight fires must evacuate the building immediately upon the triggering of a fire alarm - they must do so automatically, no questions asked, no exceptions.

The Emergency Action Plan must specify the alarm method, how the staff should exit the building, where they should go, and where and to whom they should report after they have evacuated safely. Before the evacuation can be considered complete, management must be able to account for all staff.

## **Risk Assessment and Fire Fighting**

If any staff member is allowed to remain inside and fight a small fire with a portable fire extinguisher, the Emergency Action Plan must include thorough, annual training on proper fire-danger evaluation and proper fire extinguisher use.

Note: All fire extinguishers kept on the premises must undergo annual inspection and maintenance even if no staff is authorized to use them. They should also be checked monthly to assure they are in their proper locations, charged, and in a “ready-to-use” state. Fire extinguishers should be located along normal paths of travel and accessible in an emergency...“Think Proactively” and make sure they are placed where needed. If your organization uses or stores flammable liquids you will need more fire extinguishers (every 50 feet) than if you only have normal combustibles (every 75 feet). Local and state regulations vary regarding the required number and location of fire extinguishers based on your organization’s occupancy or activities, so check local codes. Always error on the safe-side by assuring adequate numbers and that all areas are covered.



# Emergency Action Plan– Fire

Prior to fighting any particular fire with a portable fire extinguisher, a risk assessment must be done to evaluate such things as the fire's size, evacuation routes, hazards in the area such as flammables and combustibles, and the atmosphere in the vicinity of the fire.

Portable fire extinguishers serve two functions: they control or extinguish small fires and they protect evacuation routes that fires may block directly or indirectly with smoke or burning materials.

To extinguish a fire with a portable extinguisher a person must have immediate access to the extinguisher, know the types of fires and needed extinguishers, know how to actuate the unit, and know how to apply the extinguishing agent effectively.

Attempting to extinguish even a small fire carries some risk. A fire can increase in size and intensity in seconds and possibly create a hazardous atmosphere or block the evacuation route of the fire fighter. In addition, portable fire extinguishers contain a limited amount of extinguishing agent and can be discharged in a matter of seconds. Therefore, individuals should only attempt to extinguish very small fires.

## Fire Size Evaluation

### Stay and fight the fire?

Yes, if: The fire is limited to the original material ignited, is contained (such as in a waste basket), and is not higher than the firefighter's head.

No, if: The fire involves flammable solvents or hazardous materials, has spread over more than 60 square feet, is partially hidden behind a wall or ceiling, cannot be reached from a standing position, or poses other serious hazards.

## Air Quality Evaluation

### Stay and fight the fire?

Yes, if: The fire has not and will not deplete the oxygen in the room and is producing only a small amount of smoke. Smoke may be accumulating on the ceiling, but visibility is good and no respiratory protection is required.

No, if: Smoke is quickly filling the room decreasing visibility, or creating a respiratory hazard in which the fire cannot be fought without respiratory protection.

## Room Temperature Evaluation

### Stay and fight the fire?

Yes, if: Heat is being generated, but the room temperature is not increasing and no special personal protective equipment is required.

No, if: The radiated heat is easily felt on exposed skin making it difficult to approach within the effective range of the extinguisher.

## Evacuation Route Evaluation

### Stay and fight the fire?

Yes, if: There is a clear evacuation route behind the firefighter as he fights the fire.

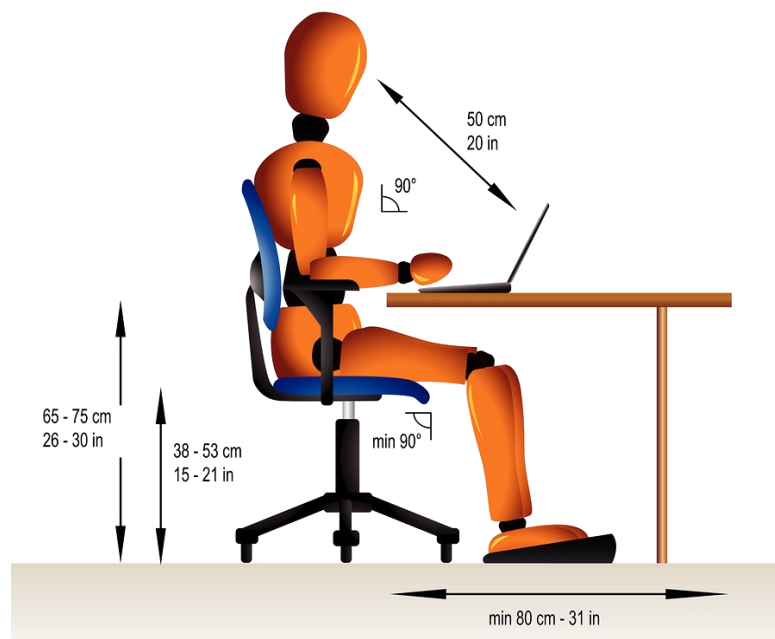
No, if: The fire is not contained and fire, heat, or smoke may quickly block the evacuation route.

# Ergonomics– Workstations

## MAKE YOUR WORKSTATION A GOOD FIT FOR YOU.

### Ensure that your:

- **Hands, wrists, and forearms:**  
are straight, in-line, and roughly parallel to the floor.
- **Head:**  
is level or bent slightly forward, facing forward, and balanced. It should generally be in-line with the torso.
- **Shoulders:**  
are relaxed and upper arms hang normally at the side of the body.
- **Elbows:**  
stay close to the body and are bent between 90 and 120 degrees.
- **Feet:**  
are fully supported by floor or footrest.
- **Back:**  
is fully supported with appropriate lumbar support when sitting vertically or leaning back slightly.
- **Thighs and hips:**  
are supported by a well-padded seat and generally parallel to the floor.
- **Knees:**  
are about the same height as the hips with the feet slightly ahead of the knees.



# First Aid– Basics

## The Essential Rules of First Aid:

- **Rule 1: Call 911 if needed.**  
Time is important. If it is determined that emergency medical services are needed, call immediately.
- **Rule 2: You must be properly trained and certified in first aid and CPR in order to assist an injured person.**  
You may do more harm than good if you are not properly trained.
- **Rule 3: Do not move an injured person:**  
Do not try to move an injured person unless the person is in imminent danger. Improper or careless movement can increase the severity of an injury.



## Types of injuries:

- **Fractures:** Treating broken bones is not for amateurs. Leave the victim in place until a medical professional arrives with proper supplies and equipment.
- **Electrical wire contact:** If a person has come into contact with a live electrical wire, a properly trained individual may try to free the person if it can be done in a safe manner.
- **Chemical splash, burn, or ingestion:** Different first aid steps will be required based on the chemical and the part of the body that came in contact with the chemical. Refer to the safety data sheet (SDS) on file for required first aid procedures.
- **Minor injuries, such as burns, nicks, cuts, and scratches:**
  - These are the most common injuries you will encounter.
  - Treating minor injuries right away is better than dealing with them after they have gotten worse.
  - If a chemical is not involved in the injury, clean the wound with soapy water for three minutes, and cover it with a bandage.
  - If the injury involves contact with another person's bodily fluid, including blood, saliva, or open wound, follow the post-exposure steps in your bloodborne pathogen exposure control plan.

## Follow additional workplace guidelines:

- **Report** all incidents to the supervisor immediately.
- If **you** do not know how to handle a situation:
  - Activate the Emergency Action Plan.
  - Call 911.
  - Get help immediately.

# Heat Stress

When the body is unable to cool off by sweating, heat-induced illnesses such as heat exhaustion, and heat stroke can occur. These illnesses are very serious, and can sometimes result in death.

## Factors leading to heat stress

High temperature and humidity, direct sun or heat, limited air movement, physical exertion, poor physical condition, some medications, and inadequate tolerance for hot workplaces or areas can all contribute to heat stress.

## Symptoms of heat exhaustion:

- Headaches, dizziness, lightheadedness or fainting
- Weakness
- Profuse sweating
- Mood swings or erratic behavior
- Upset stomach or vomiting

## Symptoms of heat stroke:

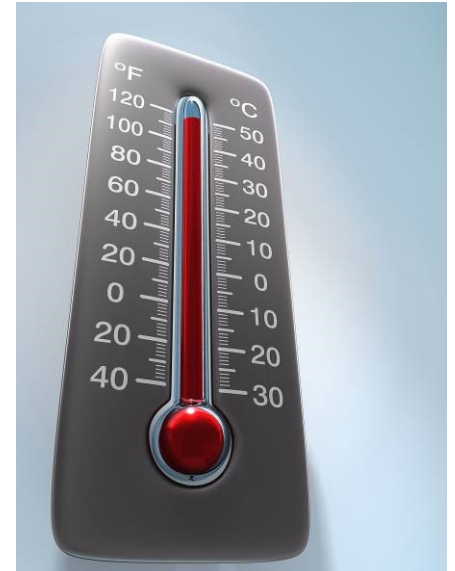
- Dry, hot skin with no sweating
- Mental confusion or loss of consciousness
- Seizures or convulsions

## Preventing heat stress:

- Know signs/symptoms of heat-related illnesses, and monitor yourself and co-workers.
- Block out direct sun or other heat sources.
- Use cooling fans/air-conditioning, and rest regularly in shaded areas.
- Drink lots of water or fluids with proper electrolyte replacement.
- Wear lightweight, light-colored, and loose-fitting clothes.
- Avoid alcohol, caffeinated drinks, and heavy meals.

## What to do for heat-related illnesses:

- Call 911 (or local emergency number)
- While waiting for help to arrive:
- Move affected person to a cool, shaded area.
- Loosen or remove heavy clothing.
- Provide cool (not cold) drinking water.
- Fan and mist the person with water.



**Most heat related illnesses can be prevented!**



# Holiday Food Safety

A popular way to celebrate the holidays is to do so with friends, family or coworkers. However, when foods are left out for long periods, you leave the door open for uninvited guests. Festive times for sharing should not include sharing foodborne illness. Here are tips from the USDA to help you have a SAFE holiday.

## Cook Thoroughly

If you are cooking foods ahead of time, be sure to cook foods thoroughly to safe minimum internal temperatures.

- Beef, veal, and lamb steaks, roasts, and chops may be cooked to 145 °F.
- All cuts of pork to 160 °F.
- Ground beef, veal and lamb to 160 °F.
- All poultry should reach a safe minimum internal temperature of 165 °F.



## Use Shallow Containers

Divide cooked foods into shallow containers to store in the refrigerator or freezer until served. This encourages rapid, even cooling. Reheat hot foods to 165 °F. Arrange and serve food on several small platters rather than on one large platter. Keep the rest of the food hot in the oven (set at 200-250 °F), or cold in the refrigerator until served. In this way, food is held at a safe temperature for longer periods. Replace empty platters rather than adding fresh food to a dish that already has had food in it; many hands may have touched the dish that has been at room temperature.

## The Two-Hour Rule

Foods should not sit at room temperature for more than two hours. Keep track of how long foods have been on the buffet table and discard anything that has been there two hours or more.

## Keep Hot Foods HOT and Cold Foods COLD

Hot foods should be at 140 °F or warmer. On a buffet table, you can keep hot foods hot with chafing dishes, slow cookers, and warming trays. Cold foods should be at 40°F or colder. Keep foods cold by nesting dishes in bowls of ice. Otherwise, use small serving trays and replace them.

## Foodborne Bacteria

Bacteria are everywhere, but a few especially like to “crash” parties. *Staphylococcus aureus*, *Clostridium perfringens* and *Listeria monocytogenes* can be found on people's hands and at buffet steam tables (See more about these on the following page). Unlike microorganisms that cause food to spoil, harmful or pathogenic bacteria, like these culprits, cannot be smelled or tasted. Smart, safe food handling is the key to prevention.

If illness occurs, and you believe that it is foodborne illness, by contact a health professional and describe your concerns and the symptoms.

# Holiday Food Safety

## **Staphylococcus aureus**

*Staphylococcus* ("staph") bacteria are found on our skin, in infected cuts and pimples, and in noses and throats. They are spread by improper food handling. Prevention includes washing hands and utensils before preparing and handling foods and not letting prepared foods — particularly cooked and cured meats and cheese and meat salads — to sit at room temperature more than two hours. Thorough cooking destroys "staph" bacteria, but staphylococcal enterotoxin (a protein released by a microorganism in the intestine) is resistant to heat, refrigeration and freezing.

## **Clostridium perfringens**

Known as the "cafeteria germ" these bacteria can be found in foods served in quantity and left for long periods of time on inadequately maintained steam tables or at room temperature. Prevention steps are: divide large portions of cooked foods such as beef, turkey, gravy, dressing, stews and casseroles into smaller portions for serving and cooling; keep cooked foods hot or cold, not lukewarm.

## **Listeria monocytogenes**

Because *Listeria* bacteria multiply at refrigeration temperatures, these bacteria can be found in cold foods typically served on buffets. To avoid serving foods containing *Listeria*, follow "keep refrigerated" label directions. Carefully observe "sell by" and "use by" dates on processed products, and thoroughly reheat frozen or refrigerated processed products before consumption.



# Office Ergonomics– Work Posture

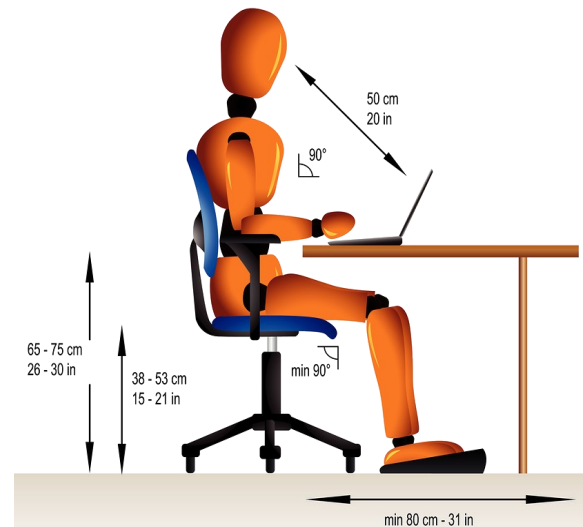
## Good office ergonomics assists in providing a safe and comfortable work environment:

The first thing to recognize is that there is no single “correct posture” or configuration that will work for everyone. There are a few basics that can help when setting up a work area, presumably for computer related tasks. Many of these principles can be transferred to other types of work stations.

## Posture and a neutral body position:

Posture is a very important aspect of how to set up a proper workstation. One of the most important concepts is the idea of a *neutral body position*.

- This means that your body’s position allows your joints, muscles, connective tissues such as tendons, and the skeletal system to naturally align with minimal effort.
- The intent of a neutral body position is that it reduces the risk of developing a musculoskeletal disorder (MSD).



## Some important considerations to setting up and maintaining neutral body postures while sitting at a computer workstation:

- Your hands, wrists, and forearms are straight, in-line and roughly parallel to the floor.
- Your head is as vertical as possible.
- Your shoulders are relaxed and upper arms hang naturally at the side of the body.
- Your elbows are close to the body.
- Your feet are supported by the floor or a footrest used to allow feet to be flat.
- The back is fully supported with an appropriate lumbar support.
- The thighs and hips are parallel to the floor, and supported by a well-padded seat with a “waterfall” or rounded front edge.
- Your knees are approximately the same height as your hips with the feet slightly forward.

## Make small changes during the day:

Regardless of how good your working posture is, working in the same position or sitting still for prolonged periods is not ideal. Small changes in your working position throughout the day can relieve stress, but care should be taken to maintain a neutral body position.

## Break up your routine:

You should break tasks up throughout the day to allow other muscles and joints to be used. Stretching should occur throughout the day. Make sure that the other components of your workstation support neutral body positioning and allow adjustability, including:

- The mouse
- The keyboard
- The monitor
- The chair



# Safety Data Sheets

## What are Safety Data Sheets (SDSs)?

Safety Data Sheets are written or printed materials with information about hazardous chemicals. These documents are provided by the manufacturer or importer of the chemical. They include what chemicals are in a product, the physical and health hazards of those chemicals and what steps must be taken to prevent adverse effects when using the product.

## Safety Data Sheets and the Hazard Communication Standard:

The Hazard Communication Standard requires a written hazard communication program to be in place. This written program requires:

- SDSs to be obtained and accessible for all chemicals used in the workplace.
- A chemical inventory list.
- Training for all employees to assure they know:
  - How to read and understand the SDSs.
  - The health and physical hazards of the materials they could be exposed to.
  - The proper controls to safely handle the chemicals used.

## The contents of a SDS:

When a chemical manufacturer or importer prepares a SDS, it must have 16 headings or sections as outlined below. These sections correspond with the international requirements established by the Globally Harmonized System of Classification and Labeling of Chemicals (GHS). The standardized format provides uniformity around the world.

Listed are the 16 sections with a brief description of what is required in each section:

### Section 1: Identification

Product identifier, recommended use, restrictions of use and contact information of the manufacturer.

### Section 2: Hazard identification

Pictograms, hazard statements, signal words and precautionary statements.

### Section 3: Composition

Ingredients, chemical name, common name, and Chemical Abstract System (CAS) number.

### Section 4: First aid measures

Description of necessary measures specific to the method of exposure.

### Section 5: Fire fighting measures

Suitable extinguishing media specific to hazards arising from the chemicals.

### Section 6: Accidental release measures

Personal precautions to take, Personal Protective Equipment (PPE), containment and cleanup procedures.

### Section 7: Handling and storage

Precautions for safe handling.

### Section 8: Exposure controls

Permissible exposure limits (PEL) and appropriate engineering controls.



# Safety Data Sheets

## The contents of a SDS (continued):

### Section 9: Physical and chemical properties

Includes but is not limited to appearance, odor, melting point, pH and flash point.

### Section 10: Stability and reactivity

Reactivity, chemical stability and conditions to avoid.

### Section 11: Toxicological information

Health effects, information on routes of exposure, symptoms related to chemical, physical and toxicological characteristics.

### Section 12: Ecological information

Degradability and bioaccumulative potential.

### Section 13: Disposal considerations

Safe handling of waste residue.

### Section 14: Transport information

Proper shipping name and transport hazards.

### Section 15: Regulatory information

Safety, health and environmental regulations.

### Section 16: Other information

Date of preparation and date of last revision.

Sections 12 through 15 are included to be GHS compliant but will not be enforced by OSHA.

Always refer to the applicable Safety Data Sheet when using chemicals.  
It can keep you and your co-workers safe.



# School Safety– Security Risks

## Understanding the security risks at your school will help you combat them.

Here are some tips to help you understand, identify, and prevent security risks at your school:

### Inventory your school's assets:

What is most at risk? The protection of the students and staff is always paramount, but measures taken to protect them will usually be driven by a defined threat.

- Are band instruments attractive targets for theft or vandalism?
- Is the new computer lab full of the best and most easily resold computers?
- Most schools can't afford to provide a high level of security for all interests, so it is important that the most important assets are recognized and secured. Inventory school assets that might be attractive to theft or vandalism.

### Define your school's threats:

Signs of threats to your school:

- Gang rivalries / Fights
- Drugs/alcohol hidden
- Guns brought to school
- Unauthorized persons on campus
- Vehicle break-ins
- Graffiti

How sophisticated or motivated do the people who threaten your school seem to be? Measures taken to protect against these threats should be in line with the inventory you took in the previous step.



### Characterizing a school's environment:

A security plan takes into consideration; budget, physical limitations of the facility, staff needed, etc., so that all strengths, weaknesses, and idiosyncrasies are realized and provided for. How risks are approached will largely depend on your school and the threats you face.

- If theft and vandalism are primary risks for your school, look at crime rates for the neighborhood and see how you can work with local law enforcement.
- Look around the school and see what you are working with.
- Can window locks be replaced and doors reinforced?

### After the assessment, make your case:

- Once the school's threats, assets, and environmental limitations are understood, security needs can be prioritized so that the school's security goals are understood by all those involved.
- Often, beefing up the security of a school involves securing more funding; if you make a thorough investigation of just where your vulnerable areas are you will have made a stronger, more effective case for new equipment or security measures.



# School Safety– Students Who Cause Violence

## **Students who cause violence and violent deaths in schools often share certain characteristics.**

Researchers have created a list of characteristics to determine what kind of student is usually involved in school violence.

In most cases a troubled youth has talked to someone about what he or she was planning to do. Often, the student has felt bullied, angry, depressed and frustrated. With careful planning and a well-trained staff, many of these acts of violence can be prevented.

### **Below is a list of characteristics of potentially harmful students:**

- History of tantrums or uncontrollable angry outbursts.
- Characteristically employs name calling, cursing, or abusive language.
- Habitually makes violent threats when angry.
- Has previously brought a weapon to school.
- Has a history of serious disciplinary problems at school and in the community.
- Has a history of drug, alcohol or other substance abuse or dependency.
- Is on the fringe of his/her peer group with few or no close friends.
- Is preoccupied with weapons, explosives or other incendiary devices.
- Displays cruelty to animals.
- Has witnessed or been a victim of abuse or neglect in the home.
- Has been bullied and/or bullies or intimidates peers or younger children.
- Tends to blame their difficulties and problems on others.
- Consistently prefers TV shows, movies or music expressing violent themes and acts.
- Prefers reading materials dealing with violent themes, rituals and abuse.
- Reflects anger, frustration and the dark side of life in school essays or writing projects.
- Is involved with a gang or an antisocial group on the fringe of peer acceptance.
- Is often depressed and/or has significant mood swings.
- Has threatened or attempted suicide.

**Talk to your staff and make sure they know about these characteristics and warning signs. The best way to stop school violence is to prevent it from happening in the first place.**



# Workplace Conservation

## Reduce, Reuse And Recycle!

We've all heard it before, right? So why is it so important to actually implement these three strategies in the workplace, and how can it benefit your workplace?

Conservation, whether at home, school, or in your workplace, is a vital part of keeping our earth livable for future generations. Conserving in the workplace not only benefits our planet but reduces your organization's overhead, which can allow funds to be redistributed to better uses.

Check out how long it takes for these products to decompose in the environment:

- Aluminum soda cans: 200-500 years
- Plastic bags: 1,000 years
- Glass: 1 to 2 million years
- Styrofoam: Over 2 million years

## Reduce

waste by making smart decisions when purchasing products, including the packaging of the products you use. Purchase recycled products whenever possible.

## Reuse

containers and products.

## Recycle

as much as possible, anything from paper products, plastics, Styrofoam, and even electronics.



# Workplace Conservation

Lighting and computers represent two of the biggest drains on electricity. Research tells us that approximately 30% of an office's energy usage goes to lighting alone. In addition, the average office worker uses 12,000 sheets of paper each year?

Here are some simple ways that you can contribute to conservation within your workplace:

- Replace incandescent lights with compact fluorescent or LED lights. This can save up to 50% on lighting costs!
- Turn off all lights when you leave at night, and install motion detention switches.
- Close or adjust window blinds to block direct sunlight to reduce cooling needs during the warm months.
- Unplug equipment that drains energy when not in use, such as coffeemakers, radios, fans, and desktop printers.
- Turn off computer monitors at the end of the work day.
- Save paper by only photocopying what you need and transition as possible to electronic filing. Always use the second side of paper.
- Send an email instead of sending a letter when you can.
- Use glasses & coffee mugs instead of disposable cups.
- Carpool, bike or use mass transit when commuting to work.

**Conservation will benefit everybody around the globe, including you! Get started in your workplace and at home!**





# Workplace Safety– The Role of Staff

## The Occupational Safety and Health Act (OSHA)

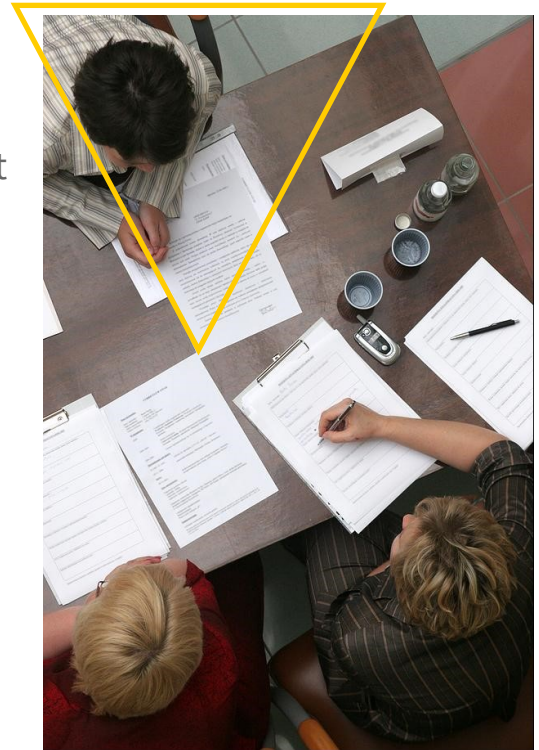
The Act requires each worker to comply with occupational safety and health standards, as well as all rules, regulations, and orders issued under the Act that apply to his or her own actions and conduct.

### Staff Responsibilities:

- Read the OSHA poster at your jobsite.
- Comply with any applicable OSHA standards.
- Follow all of your employer's safety and health standards and rules.
- Wear and use prescribed personal protective equipment.
- Report hazardous conditions to your supervisor.
- Report any job-related injuries or illnesses to your employer and seek treatment promptly.
- Cooperate with OSHA compliance officer when conducting an inspection if he/she inquires about conditions at your jobsite.
- Exercise your rights under the Act responsibly.

### Staff Rights:

- Obtain a copy of the OSHA standards and other rules, regulations, and requirements from your employer.
- Request information from your employer on safety and health hazards in your work area, on precautions you need to take, and on what you must do if you are involved in an accident or exposed to toxic substances.
- Accompany the OSHA compliance officer during the inspection walk around if you are designated by your union or worker association.
- Observe monitoring or measuring of hazardous materials, including the right of access to records on those materials, as specified in regulations under the Act.
- Request access to Safety Data Sheets for information on whether any substance in your workplace has potentially hazards and controls for chemicals used in the job place.
- If you have any questions or concerns regarding know or possible hazards in the workplace, **ask your supervisor**



# Workplace Substance Abuse

The majority of drug users are employed and do not leave the effects of drug use at the door when they arrive for work.

**Risks: Between** 10 and 20 percent of those who die on the job, test positive for alcohol or other drugs. In fact, industries with the highest rates of drug use have similar fatality rates as industries that are classified as high risk, such as mining and logging.

**An avoidable hazard:** The Occupational Safety and Health Administration (OSHA) and other safety organizations recognize that impairment by alcohol and drugs constitutes an avoidable workplace hazard. Drug-free workplace programs improve worker safety, health, and productivity. Safety organizations and insurers strongly support comprehensive drug-free workforce programs, especially within work environments involving safety-sensitive duties like operating machinery.

**A comprehensive drug-free workforce approach includes five components:**

- A policy
- Supervisor training
- Employee education
- Employee assistance
- Drug testing

**Privacy concerns:** Such programs, especially when drug testing is included, must be reasonable and take into consideration employee rights to privacy. Legal review of all policies is important to assure these issues are addressed properly.

**Returning to work:** Many workers with substance abuse problems are able to safely return to the workplace, provided they have access to the appropriate treatment, continuing care, and supportive services.



**Drug-free workplace programs help ensure safe and healthful workplaces and add value to our businesses and communities.**



# **Safety**

**Matters**

**Training Summaries  
for  
Maintenance & Security**

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## Training Summaries

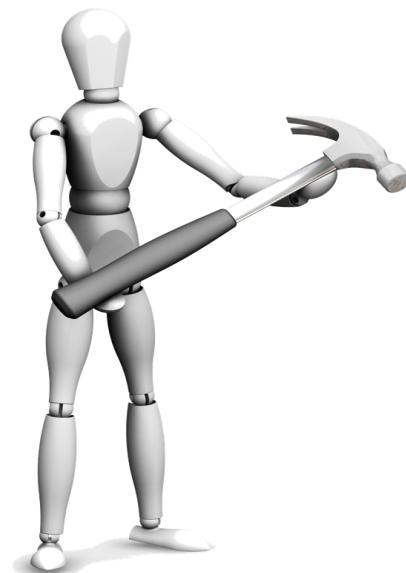
Title
Avoiding Hand Tool Injuries
Facility Maintenance—Contaminated Items
Fall Protection—Eliminating Falls
Hand Tools
Hand Tool Safety—Screwdrivers
Heat Stress Safety and First Aid
Ladder Safety
Landscape Equipment—Lawn Mowers
Landscaping—Machinery
Laundry Services
Lawn Mower Safety
Lifting Safely
Pressure Washers

# Avoiding Hand Tool Injuries

Hand tools are fundamental to many areas of work. There are a wide variety of hand tools that can assist with everything from resurfacing a road to performing open-heart surgery. However, despite their predominantly constructive purpose, hand tools cause many injuries every year.

When using any hand tool, it is important that you respect the tool and use it with caution; know the hazards of each tool based on how it will be used, and make sure you know and follow the needed controls to prevent injury!

- Review and follow all manufacturer safety information and warnings.
- Use the right tool for the job.
- Keep tools in good condition and inspect them before each use.
- Use tools only for their intended purpose.
- Keep tools in a safe place, especially away from where children can access them.
- Use all available safeguards.
- Do not use a tool that you have not been trained to use.
- Keep your workspace clear of debris and control the work area to prevent exposure to other people. Ensure that people will not be entering your workspace while you are using a tool.
- Plan your work and ensure that you are prepared. A Hazard Assessment is required to be completed to identify appropriate personal protective equipment for the job that you are performing.
- Learn first aid procedures to help prevent a slight injury from becoming serious.



# Facility Maintenance– Contaminated Items

## How to properly dispose of contaminated items:

- Use thick protective gloves when turning units.
- Report ANY dangerous items immediately.
- Do not pick up items with your hands: use a tool.
- Place any contaminated items in a designated SHARPS CONTAINER.
- Once you've filled a sharps container with used needles/syringes, dispose of it properly:
  - For public safety reasons, these containers generally require special disposal.
  - Laws for disposing of sharps containers vary considerably between jurisdictions.



**Always ensure that the proper disposal method is used.**



# Fall Protection– Eliminating Falls

## Learn to identify conditions and behaviors that cause falls:

### Stairways

- Carrying objects that block the view of the steps
- Running
- Failure to use handrail
- Working in areas cluttered by objects
- Inattention

### Ladders

- Use of ladders that do not suit the job
- Use of ladders that are in poor condition
- Improper ladder placement
- Improper ladder use
- Reaching/leaning too far
- Using a step ladder that is too short

### Scaffolds

- Using scaffolds without guard rails or toe boards
- Using poorly constructed scaffolds
- Using scaffolds without bracing to prevent sway
- Rushing work

### Floor Openings

- Working around uncovered floor openings
- Working near floor openings that have been insufficiently covered
- Working around floor openings that have been insufficiently marked

### Wall Openings

- Failing to ensure that wall openings are barricaded
- Working near wall openings that may break easily
- Failing to tie-off when working near exposed wall openings



# Hand Tools

## **The potential for injury from commonly used hand tools is always present.**

Often these tools become so much a part of the job that we take them for granted. Certainly a broken tool can prove to be a hazard, but so can using the wrong tool for the job or failing to recognize the other hazards that can develop while using common hand tools.

Hand tools by definition are not powered by a secondary source. They rely on the force, strength and skill of the user to function properly. In order to do that safely, they need to be in good working order. Did you know that each employer is responsible for the safe condition of tools and equipment used by employees, including tools and equipment which may be furnished by the employee?

## **Many potential injuries are associated with using simple hand tools:**

- Strain, sprains and overexertion
- Cumulative trauma injuries
- Foreign objects in the eyes
- Hand or body injuries
- “Struck-with” or “struck-by” injuries
- Lacerations and punctures

## **Many hand tools are used on virtually any job. Here are a few common types:**

- Wood working tools such as chisels
- Pounding tools such as hammers
- Digging tools such as shovels
- Cutting tools such as pruning loppers
- Mechanical tools such as adjustable jaw wrenches
- Various types of hand saws, rakes and pliers

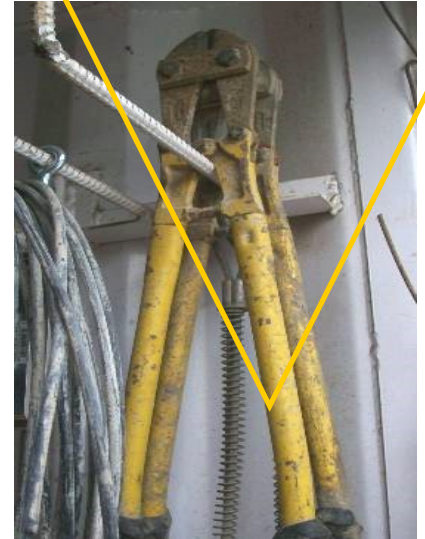


# Hand Tools

## Before use:

Regardless of the type of tool, all hand tools should be inspected before they are used. Even employee-owned tools used on a job site should be inspected before use. Damaged, bent or defective equipment should not be used.

- Handles should be inspected for cracks:
  - They should not be painted, lacquered or covered up with tape or material that prevents adequate inspection.
  - Jaws should be in good shape, not loose, worn or stripped.
- Blades should be sharp and in good condition.
- Striking surfaces should be solid and free of worn edges or mushrooming that could create a flying debris hazard.
- Certain equipment requires ANSI or other certifications; non-approved tools should not be used in place of the approved equipment.



## During use:

Follow the instructions. Hand tools are designed to be used under particular manufacture-specified conditions and only used for the intended purpose.

- Never use “cheater bars,” extension handles, power equipment, or other non-approved alterations.
- Make sure you are not going beyond what the manufacturer intended by making variations on either the equipment or its use.
- Many accidents and injuries occur when the wrong tool is selected for a specific task. Common occurrences include:
  - Using screwdrivers as chisels or as pry-bars.
  - Using wrenches as hammers.
  - Using loppers instead of a pruning saw on larger branches.

## Personal protective equipment (PPE):

- Proper use of any hand tool includes considering the personal protective equipment (PPE) needed while using the tool.
- In many cases safety glasses or gloves should be used.
- With exposed blade cutting equipment, chaps or other cut-resistant material should be considered.
- One of the best examples of eliminating the hazard is the new style of razor knife that eliminates the possibility of people cutting themselves.

# Hand Tools

## **There are other potential hazards that can impact the type of PPE to be used:**

- The type of PPE required may be altered by the presence of:
  - Electricity
  - Spring energy
  - Compressed air
  - Chemicals
  - Fluids
  - Heat or cold
- A person working during a warm summer day may need different types of PPE than a person working on a cold winter day, even though they are using the same tools and performing the same tasks.
- In some cases the PPE may require that a different tool be selected or that considerations be made for other pertinent hazards depending on the conditions that are encountered.

## **Ergonomics must be considered:**

- The conditions or tasks to be performed may require the worker to hold the tool in an awkward position:
  - This may create a hazard in and of itself, or it may make the worker more susceptible to other hazards such as falls or potential damage to knees or other body parts.
- Another common problem with the use of hand tools can be repetitive motion issues that can produce cumulative trauma disorders.
  - One of the more common occurrences of this condition is when framers and roofers repeatedly swing a hammer in the course of a day.
- Many great new tool designs have been developed to reduce this type of injury in the workplace:
  - Hammers with more ergonomically designed handles are now available.
  - The amount of force required to properly use some of these new, more ergonomically designed tools is also considerably less.

## **Hazard Assessments:**

- Employers need to perform hazard assessments in their workplaces to characterize the nature and types of hazards that are present.
- They are simple and do not have to be cumbersome.
- Consider the types of tools that will be used, the conditions that will be experienced and the type of personal protective equipment that may be needed.
- Hazard assessments should be in writing and specific for the job or task to be performed.

# Hand Tool Safety– Screwdrivers

Hand tools help us with many tasks and have become a part of our everyday lives. As a result, the hazards associated with hand tool use are often ignored.

Most hand tool accidents are preventable if best safety practices are followed. Protect yourself with the following basic safety practices when using hand tools, including screwdrivers. The screwdriver is one of the most commonly used and abused hand tools.



## Use the right tool for the job:

- Each tool is designed to perform a specific function. It is dangerous to substitute or use an inappropriate tool.
- Use tools properly, including the proper positioning to avoid strains and sprains.
- Never use damaged tools: discard, fix or replace them immediately.

## Housekeeping:

- Do not leave tools lying around where they can become a tripping hazard.
- Ensure that your tools are secured when they are not in use, so that they cannot fall off work surfaces and injure you or others.
- Do not carry chisels, screwdrivers and other pointed tools in your pockets. Use a tool belt.
- Carry all pointed tools with the tools' pointed ends aiming downward.
- Do not throw tools, pass them handle-first.
- Keep your tools in good repair, and inspect them before each use.
- Always wear the appropriate personal protective equipment (PPE) when working with hand tools.

## Ergonomic factors:

- Minimize sprains and strains by keeping your wrists straight and elbows close to the body.
- Use the comfort grips or properly fitted gloves to reduce the stress on your hands and wrists.
- Take breaks to rest your muscles.
- Consider tool design when choosing a tool:
  - Look for lightweight tools with handles that allow for a relaxed grip and enable you to keep your wrists straight.
  - Choose tools that can be used with either hand.
  - Select a tool that is the proper size for your hands. Tool handles should be shaped so that they contact the largest possible surface of the hand and fingers.
- Avoid handles with sharp edges and corners.
- Consider using power tools to reduce repetitive movements.

# Hand Tool Safety– Screwdrivers

## Safety when using screwdrivers:

- Do not use screwdrivers as punches, wedges, pinch bars or pries.
- Keep screwdrivers in good condition:
  - A broken handle, bent blade or a dull or twisted tip may cause a screwdriver to slip and result in a hand injury. A sharp, square-edged bit will not slip as easily as a dull, rounded one.
- Place the stock being worked on in a vise or on a flat surface and not in your hand; then, if the tool slips, there will be less chance of a hand injury.
- Match the screwdriver to the screw head.
- When using a screwdriver for electrical work, ensure that the handle is insulated and that the shaft does not extend into the handle.



**Always use caution when  
working with tools.  
Do not take the safety of  
hand tools for granted.**

# Heat Stress Safety and First Aid

Heat stress is a condition in which the body has an elevated core temperature; this can lead to illnesses of varying severity. Heat illnesses may cause extreme discomfort and even complete temporary disability. Heat stroke is potentially fatal and may occur suddenly if heat exhaustion is ignored.

## Facts about heat stress:

- A body at work generates heat faster than at rest, often more heat than is needed.
- Roughly three-fourths of the stored energy the body draws on during activity converts to heat rather than motion.
- More strenuous activity naturally generates more heat.
- The elevation of core body temperature disturbs functioning, so the body protects itself by dissipating excess heat.
- The mechanisms of vasodilation and sweating are critical to moving heat from a human body to the environment.

## How to avoid heat stress:

- To maintain comfort and health in a hot environment, it is critical for people to replace both the water and electrolytes they lose through sweating.
- If body fluid is not replenished at the same rate as it is lost, or if replacement lacks electrolytes, the cooling mechanisms lose effectiveness and exposure to heat stress rises.



## Here are some common symptoms of heat stress and the treatments for each:

### Heat rash:

**Symptoms:** Red cluster of pimples or small blisters.

**Causes:** Excessive sweating leading to clogged pores - can develop into an infection.

**First aid:** Cleanse and dry the affected area and use calamine lotion or dusting powder to increase comfort.

### Heat cramps:

**Symptoms:** Painful spasms of leg, arm or abdominal muscles, heavy sweating, and thirst.

**Causes:** Typically occur during or after hard work or exercise and are caused by electrolyte deficiencies that result from extended periods of intense sweating.

**First aid:** Stop all activity and sit in a cool place and drink plenty of water or electrolyte fluids. Do not return to strenuous activity for a few hours after the cramps have subsided.



# Heat Stress Safety and First Aid

## Heat exhaustion:

**Symptoms:** Fatigue, headache, dizziness, muscle weakness, nausea, chills, tingling of hands or feet, confusion, loss of coordination, fainting and collapse.

**Causes:** Dehydration, lack of acclimatization, reduction of blood in circulation, strain on circulatory system, and reduced flow of blood to the brain.

**First aid:** Rest in the shade or a cool place. Drink plenty of water (preferred) or electrolyte fluids.

## Heat stroke:

**Symptoms:** Body typically has a core temperature exceeding 104 degrees F and can no longer cool itself.

**Causes:** Can occur suddenly if heat exhaustion is not treated, and can be fatal.

**First Aid:** A person suffering heat stroke needs immediate attention and should be taken to a medical facility as soon as possible. Brain damage and even death are possible.

Call 911 or summon medical aid immediately

Move to cool shaded area

Douse the body continuously with water.

**The key to heat stress safety is prevention; be aware of the symptoms, provide relief as quickly as possible and in most cases serious injury or death can be avoided.**



For more information on Heat Related Illnesses:  
Centers for Disease Control  
Occupational Safety and Health Administration  
National Oceanic and Atmospheric Administration



# Ladder Safety

A good ladder, used properly, can be a safe and convenient tool. However, when it is used improperly it can lead to a serious injury or even result in a fatality. A ladder is not allowed to be used as a “work platform”.

## Assess the job before beginning:

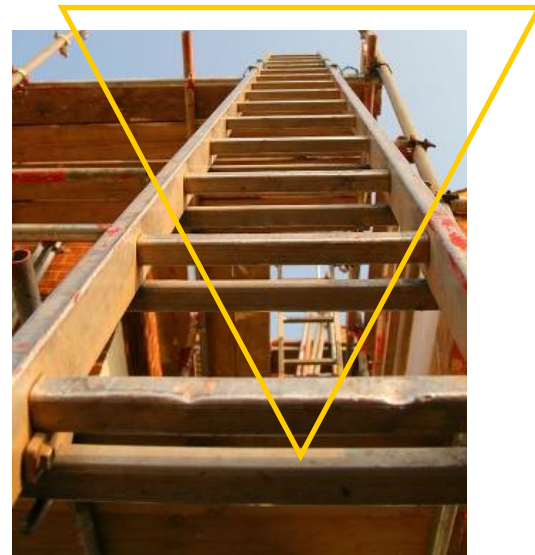
- Perform a *Hazard Assessment* for the task to be performed.
- Establish the proper and safe access, and work platform.
- Select the right type and size of ladder for the job, ensuring load capacity is not exceeded.
- Do not use metal ladders for electrical work or where the potential of contact exists.

## Inspect the ladder for defects (some things to look for):

- All rungs shall be parallel, level and uniformly spaced.
- Rungs shall not be loose, split, cracked or missing.
- Lost or damaged feet (if the ladder is equipped with them).
- Any signs of rot on wood ladders.
- Cracks on any sections such as the rails and steps.
- Lose, missing or damaged parts.

## Set up the ladder carefully:

- Do not use ladder on soft ground or slippery flooring.
- Secure the ladder appropriately.
- Big ladders are difficult to handle, so get help.
- Be sure you set it up in safe and stable conditions.
- Do not allow contact with live electric wires
- Don't rest it on glass or other weak surfaces.
- If you are working in an area around people or are where there are any vehicles, restrict access, clearly post, barricade and, as needed, have an assistant stay at the base of the ladder to keep clear.



## Use the ladder safely:

- When climbing a ladder, hold on to the rails and not the steps.
- Use a “Three Point Stance”... with at least three extremities attached to the ladder.
- Put any materials you need to take up a ladder into tool bag so that you can maintain the “Three Point Stance.”
- Materials can also be placed in a bucket or bag that is clipped properly on to a line and pulled up from a safe area.
- Do not climb with hands full of gear.
- Use fall protection as outlined in the Hazard Assessment, on the work to be done, and on potential exposures.

# Landscape Equipment– Lawn Mower

## Proper instruction & information is critical:

Do not use any lawn mower without proper instruction. Only trained operators are allowed to use the lawn mowers. Proper training must include a review of the operator's manual, as well as a skills evaluation to assure that the operators understand the features of this piece of equipment and can use it safely.

## Hazards:

Many hazards are involved when using a lawn mower, including:

- Flying particles of dirt or debris, or other particles discharged from the cutting deck.
- Slopes, uneven, or unstable ground that could potentially result in rollovers or other unsafe conditions.
- Objects in the path of travel can damage equipment or become projectiles when struck.
- Exposure to outdoor environments including insects, sun, and allergens.
- Noise exposure.
- Exposure to exhaust gases such as carbon monoxide in poorly ventilated areas.
- Burns from the exhaust system.
- Exposure to mechanical hazards from the blades and other moving parts.



## Prior to use:

Inspect and test the equipment based on the manufacturer's requirements before each use to assure that the safety devices are working. All guards must be in place and the equipment must be in good, ready-to-use condition. If the equipment is equipped with roll over protection or a seatbelt, it must be functional and used. Follow the manufacturer's recommendations for proper scheduled maintenance. Complete a written field inspection form to document that the equipment is suitable for use.

## Required PPE:

When conditions dictate a hazard is present, the following personal protective equipment (PPE) is required based on the presence of the hazard.

- **Body:** Long-sleeved shirt and long-legged pants without loose areas that could create a pull-in hazard.
- **Feet:** Anti-slip, enclosed, ankle-height, leather boots.
- **Eyes:** Safety glasses with side shields or wrap around lenses; can be appropriately shaded.
- **Ears:** Ear plugs or muffs when operating or around noisy equipment.

# Landscape Equipment– Lawn Mower

## Optional PPE:

PPE is not required based on the hazard but employee chooses to use/wear for extra protection or comfort.

- **Head:** Hard hats must be worn when working below overhead hazards such as low branches. A sunhat for protection is also advised.
- **Body:** Rain gear is recommended during wet weather.
- **Feet:** Rubber boots in wet conditions.
- **Face:** Face shield may be required when splashing or flying particles are likely. Goggles or safety glasses must be worn underneath a face shield. Goggles must be worn for liquid hazards and safety glasses for solids or particulate hazards.
- **Hands:** Leather, faced-cotton, or synthetic, nitrile gloves may be worn for chemical exposures. Do not use gloves around moving machine parts due to pull-in hazard.
- **Lungs:** Respirator; a disposable dust mask can be used on a voluntary basis.

## Operating equipment:

Equipment operators must be trained and qualified to operate each of the different types of lawn mowers that they may be asked to use. Training must be documented and kept on file.

## Tips & Reminders:

- Before mowing an area, the equipment operator must make sure the area to be mowed is clear of people and hazards. Hazards may include uneven or soft terrain, holes, foreign objects, sprinkler heads and any other type of obstruction they may encounter (roots, hoses, cords, etc.).
- Lawn mowers may not be left unattended. Engines and any other power take- off or drives shall be shut off before the operator gets off the mower. Mowers must be disengaged when moving from one job to the next and when passing over curbs, gravel, or similar surface.
- Mower blades cutting-height must not be set too low creating contact with rock or soil, typically lower than one inch.
- Mowing hills and slopes requires the operators to follow special precautions and manufacturer instructions as to use and limitations of the equipment. A pre-survey and approach needs to be established. All hills, slopes, and banks that exceed the safe operating limit of the equipment must be mowed with a walk-behind mower in accordance with the equipment's safe operating instructions.
- Mow in daylight, but be mindful of the signs and symptoms of heat stress. Take frequent breaks and drink plenty of water.
- If blade inspection or any type of repair or cleaning is needed during work, shut off the mower and assure the blade has stopped rotating. Disconnect the spark plug wire or unplug the power cord to assure the mower will not start while hands are near moving parts. Avoid touching hot parts.
- When refueling gas-powered lawn mowers, make sure the engine is not running or hot. Fuel outdoors at least 20 feet from any possible ignition source. Move well away from the fueling location and its lingering fuel vapors before starting up the mower. Wipe up any spilled gasoline immediately.

# Landscape Equipment– Lawn Mower

- Do not over-fill the gas tank or over-tighten the gas cap after refueling.
- When using an electric mower, mow away from the cord. Always use a grounded cord that is not frayed with a grounded three prong outlet.
- Do not use an electric mower in rain or other wet conditions.

## **Safety tips for walk-behind lawn mowers:**

- Do not tilt the mower. Keep four wheels on the ground while operating the mower.
- On slopes, mow across to minimize risk of injury if you slip. Use proper anti-slip soled shoes.

## **Safety tips for riding lawn mowers:**

- Assure the transmission is disengaged before you start the engine.
- Do not allow anyone else to ride on the mower with you.
- Do not mow in reverse unless it is absolutely necessary and the operator's manual indicates it can be done. If mowing in reverse, look before moving backwards to assure no person or obstacle is in your path.
- To avoid a rollover, do not ride the mower on an incline that is too steep, but ride the mower up and down reasonable slopes. Do not ride across slopes.
- Slow down when turning on slopes or whenever turning sharply so as not to tip over.
- When done with the work, turn off the engine and wait for the blades to stop turning. Safely dismount and remove the key.





# Landscaping—Machinery

Almost 200,000 workers are injured every year by machinery. Ten of every one hundred workers hurt on the job are hurt by machinery.

## The Menace of Motion

There are two kinds of motion in machinery: rotating and sliding (reciprocating).

**Rotating** - Shafts rotates. Drills, mower and chipper blades, pulleys, and gears spin. Rotating machinery can grab loose clothing, hair, and jewelry and pull you into moving parts.

**Sliding** - Forklift assemblies, trimmers, and compactors slide up and down or sideways with great force. These motions can pinch, crush and chop misplaced fingers, hands and arms.

Machines are everywhere. Recognize and avoid the hazards of machinery wherever you are working.

## Important points to remember when working with machinery:

- Operate a machine only if you are fully trained and authorized to use it.
- Use a machine only the way it is designed to be used and according to all the manufacturer safety requirements.
- Make sure that all safety guards are in place and that you and everyone else are clear of moving parts. **Never remove any guards.**
- Use machines only if they are properly maintained and in safe working condition.
- Operate only when you are dressed properly (no loose hair, jewelry, or clothing).
- Turn off the machine when you are finished using it.
- Wear all Personal Protective Equipment (PPE) necessary to safely use the machinery. A job hazard analysis should be completed to identify needed PPE such as, hearing protection, eye protection, gloves etc.



# Laundry Services

Employees working in laundry service departments encounter potential hazards every day. Hazards include excessive noise, heat, lifting heavy loads, exposure to harsh chemicals, sharp objects, and blood or other infectious materials. If you handle laundry or work in a laundry facility, you need to be aware of these hazards and take the appropriate precautions to protect yourself on the job.

## Noise:

Laundry areas typically contain loud machinery which can lead to hearing loss or impairment, hypertension, elevated blood pressure, and other health issues. To reduce noise hazards:

- Properly maintain equipment.
- Install acoustical shields and barriers.
- Use hearing protection.

## Heat stress:

Excessive exposure to high temperatures in laundry areas can lead to heat exhaustion, stroke, or possible death. To minimize hazards:

- Recognize the first signs of heat exhaustion or stroke and take immediate action to lower the employee's body temperature.
- Provide adequate ventilation and fans in high-heat areas.
- Provide plenty of cool drinking water.
- Encourage frequent breaks to cool down.

## Heavy lifting and pulling:

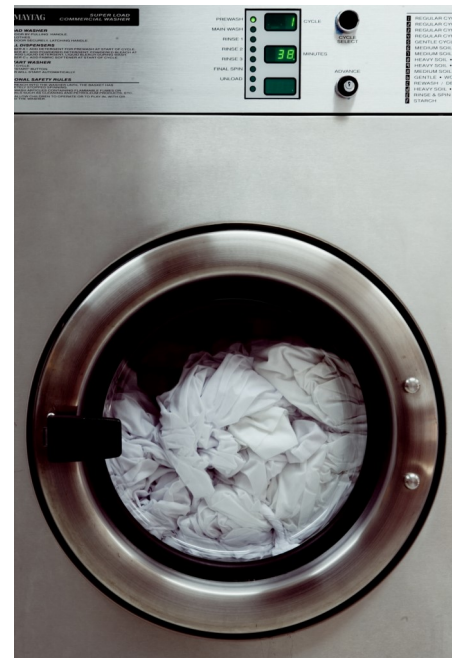
Handling laundry may require lifting and pushing or pulling heavy bags and containers or piles of wet laundry. Strains, sprains, and other musculoskeletal disorders may result. Be sure to:

- Always use proper lifting techniques.
- Avoid moving large piles of laundry; break it into several smaller loads.
- Use mechanical lifting devices when possible, such as spring-loaded carts, containers, baskets and hampers.

## Biohazardous laundry:

Laundry may be soiled with blood or other potentially infectious substances, and may contain sharps. To minimize exposure:

- Handle contaminated laundry as little as possible.
- Bag at the place of use without sorting or rinsing first.
- Use leak-proof, color-coded, or labeled bags or containers to store and transport laundry.



## Laundry Services

- Do not squeeze laundry bags or hold them close to your body. They may contain improperly discarded needles or sharps that could puncture the bag and injure you.
- Transport contaminated laundry in red bags or containers labeled with the biohazard symbol.
- Wear the proper personal protective equipment (PPE) such as gloves, gowns, face shields, and masks when handling contaminated or potentially contaminated laundry.

### Hazardous chemicals:

Employees may be exposed to harsh cleaning chemicals in laundries. To reduce hazards:

- All containers must be properly labeled with all hazard information.
- All employees must be trained on chemical hazards, recognizing labels, and reading safety data sheets (SDS).
- Never mix together cleaning solutions that contain chlorine and ammonia as this produces a deadly gas.
- Wear the proper PPE.
- Wear appropriate gloves when handling hazardous materials, such as concentrated detergents.
- Wear eye protection if working with chemicals that could splash into the eye.
- Properly ventilate the area where chemicals are stored and used.



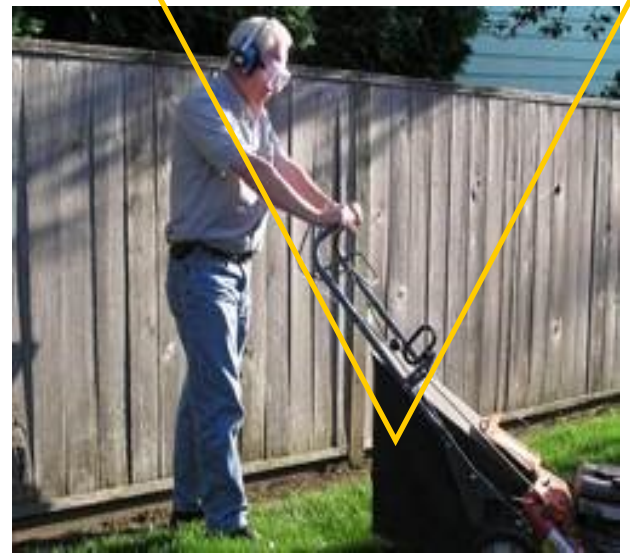


# Lawn Mower Safety

The lawn mower is a dangerous tool if not handled properly. The blade is sharp and travels at high speed when working effectively. However, the blade is not the only hazard associated with lawn mower operation. Lawn mower fueling poses risk of fire or explosion; and the lawn mower itself can be involved in rollover or run over accidents. Lawn mower injuries include loss of fingers and toes, burns, eye trauma, and broken bones. Injuries are not confined to the operator but may also involve other workers and bystanders. Lawn mower incidents can cause damage to the lawn mower as well as to other equipment and vehicles and property.

## Safety Tips for All Lawn Mowers

- Understand the mower's capacity and operating characteristics. Review the operator's manual to learn how to use the mower and accessories. Familiarize yourself with controls, gauges, and dials. Read any safety information in the manual and on the equipment. Determine the turning radius, operating clearances, slope capabilities, and safe speeds.
- Check for the proper functioning of safety features. Never remove any guard or safety equipment from the mower.
- Ensure that the mower is in proper condition for mowing – blades sharpened or replaced per the manufacturer's guidelines; broken, missing, or damaged parts repaired or replaced; guards and shields tightly fastened. Adjust the cutting height as necessary.
- Wear proper clothing, including long pants, safety glasses or goggles, hearing protection, hat, gloves, and sturdy shoes. Steel-toed boots with anti-slip soles and metatarsal protection are best.
- Check the area that will be mowed. Remove objects that may be thrown by the mower, such as, stones, sticks, wires, tools, cans, and bottles. Look closely for such objects when mowing tall brush or grass. Also observe hazards of the terrain: stumps, steep slopes, ditches, holes. Avoid mowing in wet grass to prevent slip hazards and mower clogs.
- Ensure other people, pets, or livestock are not in the area to be mowed. Tell other workers you will be starting the mower. If anyone enters the area while you are mowing, shut off the mower until they have left.
- Start the engine out-of-doors (gas powered). Carbon monoxide poisoning is a present danger in enclosed areas.
- Mow in daylight, but be mindful of the signs and symptoms of heat stress. Take frequent breaks and drink plenty of water.
- Keep feet and hands well away from the blades.
- Do not leave a running mower unattended.
- Allow the mower blade to stop completely before leaving the mower.



# Lawn Mower Safety

- To unclog the mower, first turn off the mower, wait for the blade to stop rotating, and then use a stick to remove grass.
- If blade inspection or any type of repair or cleaning is needed during work, shut off the mower and ensure the blade has stopped rotating. Disconnect the spark plug wire (gas-powered) or unplug the power cord (electric) to ensure the mower will not start while hands are near moving parts. Avoid touching hot parts.
- When refueling gas-powered lawn mowers, make sure the engine is not running or hot. Fuel outdoors at least 20 feet from any possible ignition source. Move well away from the fueling location and its lingering fuel vapors before starting up the mower. Wipe up any spilled gasoline immediately.
- Do not over fill the gas tank or over-tighten the gas cap after refueling.
- When using an electric mower, mow away from the cord. Always use a grounded cord that is not frayed with a grounded three prong outlet.
- Do not use an electric mower in rain or other wet conditions.
- Turn off an electric mower when done using it and walk to the power outlet to unplug the cord rather than pulling on the cord.



## Safety Tips for Walk-Behind Lawn Mowers

- Do not tilt the mower. Keep four wheels on the ground while operating the mower.
- On slopes, mow across to minimize risk of injury if you slip. Use proper anti-slip soled shoes.
- Turn off the mower when crossing a sidewalk or driveway to avoid rocks or other debris being kicked up.

## Safety Tips for Riding Lawn Mowers

- Make sure the transmission is disengaged before you start the engine.
- Do not allow anyone else to ride on the mower with you.
- Do not mow in reverse unless it is absolutely necessary and the operator's manual indicates it can be done. If mowing in reverse, look before moving backwards to ensure no person or obstacle is in your path.
- To avoid a rollover, do not ride the mower on an incline that is too steep, but ride the mower up and down reasonable slopes. Do not ride across slopes.
- Slow down when turning on slopes or whenever turning sharply so as not to tip over.
- When done with the work, turn off the engine and wait for the blades to stop turning. Then you can safely dismount and remove the key.
- Follow all manufacturer instructions.

# Lifting Safely

## Do you practice proper lifting techniques?

There are nearly half a million disabling injuries on the job every year and a large percentage of them are back injuries. Improper lifting technique is the cause of many of these injuries. This is demonstrated by the fact that 23% of all workplace injuries occur while lifting or moving heavy materials. Injuries of this nature are painful and sometimes career-ending. However, these incidents can be avoided by practicing proper lifting procedures.

## Factors involved in accurately assessing a lift:

The ability to lift an object will depend on the health, physical capability, and overall fitness of the individual performing the lift. Other factors to consider are:

### Load placement:

- If you are moving the load manually, place the load directly in front of you, with both your feet and the load facing forward, in order to not twist your back.
- Don't bend at your waist or lift with your back; bend at your knees and use your legs to perform the lift.

### Weight lifted:

- The amount of weight to be lifted is a critical factor. The heavier the weight, the greater the potential for injury. Decrease the weight or reduce the number of lifts per day to decrease the potential of sustaining a back injury.

### Proper grip:

- Hold loads as close to the body as possible.
  - The farther the load from the body, the greater the stress on the back.
  - Holding the load closely increases the safety of the lift by allowing your body to push an object as opposed to pulling it.
- Carry the load at waist level to create balance and reduce stress.



**Improper lifting technique:  
Do not bend from the  
waist!**

## What should be done if the load looks too heavy or unsafe to be moved by only one person?

Find a way to move the load that will not put you at risk of a back injury. Mechanical methods, such as push carts or forklifts, are means of moving heavy loads without jeopardizing your health and safety. If mechanical methods are not present, ask for help.

Get in the habit of practicing safe lifting techniques.  
Following these simple measures can prevent a potentially serious back injury.

# Pressure Washers

A pressure washer is a mechanical sprayer that uses increased water pressure to clean surfaces. If not used properly, pressure washers can cause injuries. Before using a pressure washer, prepare for its potential hazards.

## Possible hazards include:

- Excessive noise and flying debris, which can affect both you and those in the area.
- Property damage, due to flying debris or overuse.
- Foreign objects such as dirt, debris or other particles, which can get in the eyes.
- Uneven or wet ground or slopes, potentially resulting in slips, trips or falls.
- Excessive vibration exposure.
- Outdoor environment factors including insects, sun and allergens.
- Exposure to exhaust gases such as carbon monoxide when using gasoline powered washers in poorly ventilated areas.
- Potential contact with gas, oil and other fluids.
- Impact injuries from strong sprays.



## Proper instruction:

Equipment operators must be trained and qualified to operate all pressure washers that they may be asked to use. Do not use any type of pressure washer without proper instruction; you are risking your safety as well as the safety of others by doing so.

Proper training includes a review of the operator's manual as well as a skills evaluation to assure that you understand the features and can use it safely. Training must be documented and kept on file.

## Equipment inspection:

Inspect and test the equipment per manufacturer requirements before each use to assure that the safety devices are working. While doing so, complete a written field inspection form to document that the equipment is working properly and is suitable for use. Ensure that all safeguards are in place, and do not use the equipment if any unsafe conditions exist. Next, conduct a hazard assessment to determine what personal protective equipment (PPE) is appropriate for the job.



# Pressure Washers

## Required PPE includes:

- Coveralls or pants.
- Shirts with long sleeves.
- Anti-slip, ankle-high or taller, leather boots.
- Heavy work gloves, which are preferably anti-vibration and made of leather or a similar substance.
- Goggles or safety glasses with side shields or wrap around lenses.
- A face shield with a mesh screen when flying particles are likely.
- Ear plugs or muffs when working around noisy equipment.

## Optional PPE includes:

- Hard hats when working below overhead hazards such as low branches.
- Sunhats.
- Rain gear.
- High visibility clothing when working around traffic.
- Rubber boots with anti-slip soles in excessively wet conditions.
- Solvent-resistant gloves for fuels and lubricant use.
- Sun-screen and water bottles for increased hydration.
- ANSI Safety Rated Sunglasses in adequate lighting.



## Maintenance and repairs:

Follow the manufacturer requirements for scheduled maintenance. If you are not qualified to make appropriate repairs using safe work practices, contact an authorized and qualified equipment mechanic. If you are performing maintenance yourself, follow these tips:

- Don't work on running or hot equipment. Shut it off and let it cool.
- If you're using a gasoline powered pressure washer, disconnect the spark plug wire before performing mechanical adjustments, maintenance or repairs. If the machine is powered by electricity, disconnect the machine from the power source.
- Inspect the machine carefully for loose, broken or damaged parts. Repair or replace these parts before using.

## SAFETY PRECAUTIONS

### Before beginning work:

- The equipment operator must make sure the area is clear of hazards, such as uneven or soft terrain, holes, foreign objects, sprinkler heads, roots and any other type of obstruction that may be encountered.
- The operator must ensure that there are no children, pets or other sources of concern within 30 feet of the equipment.

### For electric pressure washers:

- Keep the power cord out of standing water.
- Only use heavy duty extension cords with components rated for wet conditions.
- Assure you are using a Ground Fault Circuit Interrupter plug to provide further protection.
- Never splice the power cord or extension cord.

# Pressure Washers

## **For gasoline powered pressure washers:**

- Fill the fuel tank outdoors and protect the area from spills.
- Do not smoke or allow other ignition sources while handling fuel.
- Use the proper fuel-to-oil ratio when mixing fuel, as applicable.
- Do not put fuel in hot or running equipment.
- Use a rag to wipe up fuel spills.

## **Hose safety:**

- Never disconnect the high-pressured hose while the system is operating.
- Allow it to reduce in pressure before turning off the machine.
- Turn off the pressure washer before adjusting the spray pattern or changing the spray tip.

## **Awareness:**

- Be aware of traffic. Protect yourself by using high visibility clothing and traffic control devices.
- Pay attention to where you wash. Direct water spray away from people, animals, glass, electrical devices and other items that could be damaged.
- Watch where you walk, as the ground will be slippery.
- Rotation: Rotate washing with other tasks, and rotate between employees as practical, to limit repetitive motion and strain.
- Hearing safety: Do not wear headphones. Wear proper hearing protection.

Pressure washers can be very useful tools for clean-up.  
Keep everyone safe during their use by following these tips.





# **Safety**

**Matters**

**Supplemental Training Videos  
(optional)**

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## Supplemental Video Training List

Title	Recommended for Administration	Recommended for Maintenance
Back Injury Prevention	✓	✓
Bloodborne Pathogens		✓
Emergency Evacuation	✓	✓
Emergency Preparedness at Work	✓	✓
Fire Extinguisher Training	✓	✓
First Aid Training—Comprehensive Training	✓	✓
Foot Protection	✓	✓
Heat Stress		✓
Ladder Safety		✓
Office Safety Basics	✓	
Preventing Workplace Violence	✓	✓
Safe Operation of Motor Vehicles	✓	✓
Safety & the Supervisor	✓	✓
Safety Orientation	✓	✓
VDT Safety & Ergonomics	✓	✓
Workplace Safety Inspection Checklist	✓	✓