

# **Emergency Action Plan, Machine Guarding, Lockout Tagout Affected, Housekeeping, Slips Trips and Falls, Skid and Pallet Safety, Warehouse Safety, Compressed Cylinders, Staying Hydrated**

## **Emergency Action Plan (EAP)**

An emergency action plan (EAP) is a written document that acts as a blueprint or guide to help facilitate and organize both employer and employee actions during workplace emergencies. Well-developed emergency plans, along with proper employee training (to understand their roles and responsibilities) will result in fewer and less severe injuries/illnesses and less damage to the facility during emergencies. A poorly prepared plan and/or no employee training, will likely lead to a disorganized emergency response, resulting in confusion, injury, and damage.

This training session will help employees better understand how to prepare for and respond to emergencies in the workplace. Employees will learn about evacuation routes, emergency alarms, responding to fire or smoke, responding to a chemical spill, responding to natural disasters, etc.

### **When to sound the alarm:**

Every employee needs to be prepared for emergencies and know how to safely respond to various workplace emergencies. Examples of some workplace incidents that will cause for alarm, and have emergency protocol take place are:

- Experience or anticipate an explosion
- Chemical spills or gas leaks
- Natural disasters
  - Tornado, Earthquake, Severe Weather
- Human Threats
- Workplace violence or terrorism
- Most common cause for emergency:
  - Fire
  - Smoke

### **Evacuation Procedures:**

- Understand emergency alarm
- Listen for any specific instructions
- Follow the nearest exit route
- Know locations of fire extinguishers
- Proceed to the designated assembly area
- Assist others that may be in need of assistance

### **Emergency Alarms:**

- Manual fire alarm box
- Public address system
- Phones or radios
- Air horn
  - One continuous blast means outside evacuation
  - Intermittent blasts mean inside collection
- Word of mouth/Intercom system

### **Emergency Routes:**

- Should be unobstructed
- Keep dangerous items away
- Exit should be clearly visible and distinctive
- Non-Exit doors or passages need to be marked “Not an Exit”

- If they can be mistaken as an exit or passageway
- Be sure there is nothing obstructing the exit door from opening, like snow

### **Collection Points:**

#### *Outside Collection Points*

- Ensure collection point does not block emergency vehicles
- Proceed directly to your designated meeting area
- Make sure you are accounted for

#### *Inside Collection Points*

- Should be a central location
- Should not be exposed to windows
- Management should bring a weather radio and phone access with them

### **Emergency Contacts:**

- Emergency reporting procedures (who reports emergencies)
- Emergency contact information o 911 vs 9-911
  - Employee contact information
- List of employees for head count

### **What a Fire Needs to Burn:**

- Fuel Source
  - Flammable liquids
  - Gasoline/Kerosene
- Ignition Source
  - Heat, flames, sparks, static electricity
- Oxygen
  - Present at all times in air

### **Fire Prevention:**

- Keep dust under control
- Dispose of oily rags appropriately
  - Store in closed approved containers
- Don't allow combustibles to accumulate
- Keep emergency exits clear

### **Different Fires Need Different Treatment:**

The National Fire Protection Association has classified fires into four main types. Remember to determine which type of fire/fuel source you're dealing with before you choose an extinguisher. All fire extinguishers are labeled to tell you which classes of fire they're designed to be used for.

#### *Classes of Fires*

- Class A – fires are the most common. They involve wood, cloth, paper, rubber, and plastics. Water or dry chemicals should be used to extinguish these fires. Do not use carbon dioxide extinguishers or those containing sodium or potassium bicarbonate.
- Class B – fires involve flammable liquids, gases, and greases. Foam, carbon dioxide, and dry chemical extinguishers should be used. Water fog and vaporizing liquid extinguishers may also be used.
- Class C – fires involve electrical equipment. Carbon dioxide and dry chemical extinguisher should be used. Do not use foam or water extinguishers.
- Class D – fires involve combustible metals, such as magnesium, titanium, zirconium, and sodium. These fires require special techniques to control. None of the extinguishers mentioned should be used.

Multi-purpose extinguishers (ABC) will handle all A, B, and C fires. **All fire extinguishers are labeled with either ABC, or A, or B, or C, so be sure to read the label.**

### **How to Use a Fire Extinguisher:**

*Remember the word PASS*

- Pull the pin
- Aim the extinguisher nozzle at base of fire
- Squeeze the trigger while holding extinguisher upright
- Sweep the nozzle side to side, cover the area of the fire

Remember, fire extinguishers are for small fires only or to be used to help you escape the building. 10-pound fire extinguishers last between 7-15 seconds.

### **New Employee Question List:**

When a new hire comes on board it is imperative that we are answering a few questions for them in how we conduct our EAP. After discussing this try frequently quizzing them as it will help if an emergency ever comes up. Examples of some new hire questions are:

- What are our alarms and where are they located?
- Where are the fire extinguishers?
- Where are our emergency exit doors in my area?
- Where are our collection points?
- Who is my direct supervisor for future questions?

### **Machine Guarding**

Guards are installed on machines to protect operators and others in the area from injury. Today, most machines at most worksites are equipped with guards. The dramatic improvement in guarding over the past dozen or so years has meant fewer employees sustaining the crushing injuries that used to occur all too frequently.

Yet even today some operators find ways of putting themselves in danger by removing or bypassing machine guards or tampering with interlocks so they can operate their machines faster. *In this company, failure to use the guards provided is cause for disciplinary action.*

Here are some facts to show why it is important to properly guard your machine.

- 18,000 serious injuries every year
- 800 deaths per year still occur on average by those who operate and maintain machinery
- Power Press Brakes and Forging Machines are the most cited types for large machine safeguarding

### **Where Are The Hazards?:**

Listed below are the main areas where contact with a piece of machinery can cause the most harm or potential death to a person. Recognizing these areas before starting work and making sure they are properly guarded will be the best way to keep yourself and others safe from unnecessary harm.

#### **Point of operation**

- Where work is performed on a material to shape or manipulate it to its desired form.

#### **Mechanical power transmission**

- The components of the mechanical system that transmit energy to the part of the machine performing the work.

#### **Other moving parts**

- Any exposed moving component that could cause injury.

### **Where Hazards Occur:**

There seem to be as many hazards created by moving machine parts as there are types of machines. Safeguards are

essential for protecting workers from needless and preventable injuries.

A good rule to remember is, any machine part, function, or process which may cause an injury must be safeguarded. When the operation of a machine or accidental contact with it can injure the operator or others in the vicinity, the hazards must be either controlled or eliminated. Some examples of basic machine hazards that require safeguarding include:

- Point of operation
  - Rotating parts
    - Shafts, including shaft ends
    - Gears and pulleys
    - Collars, couplings, and cams
  - Nip/Pinch points
    - Rotating cylinders
    - Chains and sprockets
    - Belts and pulleys
  - Shear points
    - Hedge trimmers
    - Grain augers
    - Rotary mower blades
  - Crushing points
    - Presses
    - Unsecured materials and equipment
    - Heavy objects
  - Cutting actions
    - Band saws
    - Circular saws
    - Drill presses
    - Lathes and mills
    - Flying chips, scrap metals, or sparks
- Mechanical power transmission
  - Pulleys and flywheels
  - Connecting rods and couplings
  - Belts
  - Cams and cranks
  - Spindles
  - Gears and chains
- Other moving parts

#### **Most Common Safety Measures:**

- Fixed guards - These guards should only be removed by lockout tagout authorized employees.
- Safeguarding Devices - These guards are set when traditional fixed or distance guards aren't enough. They stop the machine if a hand or any part of the body is inadvertently placed in the danger area.
- Distancing guards and Tools - Forces employees to stay out of the area in which work is being performed by the machine, thus preventing contact.
- Awareness Barriers – These are warning devices used in conjunction with other guards to keep employees aware of the dangers.

Rules to remember:

1. Do not operate without a guard
2. Do not bypass a guard
3. Shutdown during service
4. Never reach into operating equipment
5. Use appropriate protective equipment such as distancing guards or PPE
6. Maintain machinery properly
7. Give yourself “An O.U.T.” by never reaching  
Around, **O**ver, **U**nder, or **T**hrough guards

### **Best Practice for Operation (Machine Operation Check List):**

Breakdowns, jammed work, and broken parts sometimes cause us to forget ordinary safety procedures. Very often, to remedy these conditions it is necessary to get into out-of-the-way places. During these situations, use extreme caution. Use a push stick or block to help remove pieces.

Guards are there to prevent injuries and should never be tampered with. It is to everyone's advantage to make sure all guards are placed properly—and it pays to double-check; hands, arms, and lives are saved that way. If you see a piece of equipment without a guard, or any other unsafe condition, report it to your supervisor immediately, whether the equipment is in your work area or elsewhere. When working with machinery, you should also do the following:

- Before turning on the machine, check that guards are in place at:
  - Exposed points of operation
  - Ingoing nip points
  - Blades
  - Rotating parts including drive components (chains, belts, pulleys, etc.)
  - Any operating points that send off flying chips or sparks
- Never remove or defeat safeguards. Majority of amputations are the result of operators removing or defeating safeguards.
- Never operate a machine that is missing a guard. Never operate a machine that is not equipped with adequate point-of-operation safety guards or safety devices.
- Never leave machines unattended with parts still moving. Never leave a machine that is still on or has been turned off but is still coasting.
- No loose clothing, long hair, or jewelry. Confine or tie back all loose clothing, long hair, and jewelry.
- Never reach around or under a guard. You are defeating the guard's purpose!
- Don't use gloves. They can interfere with a precise grip or get caught in pinch points or the point of operation.
- Check machines before use. If anything seems to be missing or not working properly, report it.
- Lock out the machine if a guard or safety device needs to be removed.

### **Abrasive Grinding Wheels:**

A common piece of equipment that's used throughout many facilities in general industry is the abrasive grinding wheel. When it comes to properly guarding abrasive grinding wheels, the guarding must meet the following minimum general requirements:

- Resting Guard
  - Set at an 1/8 inch from the wheel
- Tongue Guard
  - Set at a 1/4 inch from the wheel
- Adjustable shields do not replace or substitute for a mandatory tongue guard

## **Lockout/Tagout**

When a machine requires maintenance or repair, energy (pneumatic, hydraulic, electrical, or mechanical) must be turned off and locked and tagged with a label to protect workers from accidental machine start-up or unexpected energy release. Lockout and tagout procedures are used to warn employees and ensure that the electrical power is properly disconnected. Only qualified, authorized employees can disconnect the source of power and lock and tag it. There are two types of employees when you are talking about lockout/tagout:

- Authorized – is that employee who can physically lockout a piece of equipment (usually a set-up person or a maintenance person). Unless you have been trained in proper lockout procedures you are not authorized to lockout equipment.
- Affected – is the employee that is affected by the equipment being lockout (machine operator).

Locks and tags are used for everyone’s protection against electrical dangers. **For your safety and others, never remove or ignore a lock or tag.**

### **Responsibilities of Being Lockout/Tagout Affected:**

If you operate or use machinery or equipment on which servicing, or maintenance is being performed under Lockout/Tagout, or you work in an area in which such servicing or maintenance is being performed, your job qualifies you as “affected”. As an “affected employee”, it’s your primary responsibility to report any machinery or equipment issues and leave the machinery/equipment alone while it’s being serviced or repaired. Some of your main responsibilities include:

- Notifying maintenance of issues
- Leaving locks, tags, and equipment alone

### **Lockout Affected:**

As an “affected employee”, you also understand how to respond:

- Stay clear of the area and wait for further commands
  - If possible, vacate the area entirely
- Talk with management about what to do while your machine is under lockout tagout
- Do not touch locks, tags, or place any other lock on machinery
  - Do not assist lockout tagout authorized employees with any part of the lockout tagout process
- If you are not trained, you are not allowed to be involved

### **Lockout Authorized Procedures:**

To safely apply energy control (Lockout/Tagout) procedures to machinery or equipment (using Lockout/Tagout devices), “authorized employees” must perform certain procedures, in a specific order, before servicing or performing maintenance on the machinery/equipment. These procedures are:

1. Notification of employees: “Affected employees” should be notified of the planned lockout or tagout before controls are applied.
2. Preparation for shutdown: Before an “authorized” or “affected employee” turns off a machine or equipment, the “authorized employee” must have knowledge of the type and magnitude of the energy, the hazards of the energy to be controlled, and the method or means to control the energy.
3. Machine or equipment shutdown: The machine or equipment must be turned off or shut down using the procedures established for it to avoid any additional or increased hazards to employees as a result of the machine or equipment stoppage.
4. Machine or equipment isolation: All energy-isolating devices that are needed to control the machine's energy source must be located. These devices must then be used to isolate the machine or equipment from its energy source.
5. Lockout or tagout device application: Lockout or tagout devices must be affixed to each energy-isolating device by “authorized employees”. Lockout devices where used, must be affixed in a manner that will hold the energy isolating devices in a "safe" or "off" position. Where tagout devices are used, it must be affixed in a manner that

will clearly indicate that the operation or movement of energy isolating devices from the "safe" or "off" position is prohibited.

6. Stored energy: After the energy-isolating device has been locked out or tagged out, all potentially hazardous stored or residual energy must be relieved, disconnected, restrained, or otherwise rendered safe.
7. Verification of isolation: Before any work begins on machines or equipment that have been locked out or tagged out, an "authorized employee" must verify that the machine or equipment has been properly isolated and deenergized.
8. Release from Lockout/Tagout

### **Housekeeping:**

Although machinery, production, and the motion of industry are what are typically pictured as the most lethal aspect of an average workday, poor housekeeping is what can truly make a near miss turn into an accident in a matter of seconds. While the hazards seem minimal and unimportant, as smaller issues in work areas grow and are ignored, the greater the risk grows for a larger more catastrophic accident to occur.

### **Unnecessary Hazards:**

- Scraps and debris from material left on the floor
- Propane tanks left standing near emergency exits
- Lack of adequate lighting in work areas, like docks

### **Adding Up the Risks:**

- Ignoring these "minor" risks or inconveniences opens the door to a greater chance of injury
- These poor housekeeping issues are completely preventable and likewise is the chance of injury

### **Basic Housekeeping Goals:**

- Open and clear walkways
- Adequate lighting
- Access to emergency equipment, like fire extinguishers and exit doors

### **Who Is Responsible?**

- Every employee has a responsibility to speak-up when he or she sees or witnesses poor housekeeping practices
  - Your safety and life could be on the line

### **Preventative Care:**

- Evaluate your workspace
- Remove or report the hazards you see before starting
- Clean up as your work
- Simply make time for workspace management and don't ignore hazards

Taking these simple steps can be enough to avoid or acknowledge hazards that could cause potential harm

### **Open and Clear Access:**

- 3-4 ft in width qualifies as open and clear access for main aisles
- If painted walkways are present, they must always be open and clear
- Items cannot be stored on staircases
- Fire extinguishers, eye wash stations, emergency alarms, and electrical panels may never be blocked
- Emergency exits must always be free of obstructions

These areas and items must be checked before the beginning of your shift and addressed if found to be compromised

### **Clean and Safe Workstations:**

- Clean up spills as they occur or discover them
- If a serious mess or accident has occurred, report to management and ask for guidance on how to clean it up safely
- Trash bins must be emptied once full and in a timely fashion
- Trash bins containing flammable debris must have a lid on top

- Be cautious of spills near electrical sources
  - Even if small, inform management before cleaning up

### **Electrical Panels:**

Electrical panels and disconnects are our access points to control electrical energy. It is important that we always have access to them. Electrical panel and disconnect requirements include:

- Must have open and clear access
- No storage allowed within a 30" by 36" area in front of electrical panels or disconnects
  - (If the panel is larger, the open space must be as well)

Please report the following to maintenance if discovered in your work area.

- Missing electrical panel covers
- Missing knockouts or blanks in panels
- Broken wires or conduits with exposed wires

### **Storage of Compressed Products:**

- Store flammables in their respective areas
  - Outside cage, fire cabinet, certain bins
- Chain or secure compressed tanks to a solid structure
- Do NOT store oxygen and flammable gasses together

### **Slips, Trips, and Falls:**

Slips, trips, and falls are usually minor and do not typically result in permanent injury. But sometimes these accidents are serious, causing permanently disabling injuries or even death. While the probability of being injured from a slip, trip, or fall may not seem likely, statistically there is a high probability.

### **Calculating the Odds:**

- They make up the majority of general industry accidents
  - Falls from a height typically resulting in the most serious injuries
- Poor management and housekeeping of work areas are the main cause of these types of accidents
- It is within your power day-to-day to prevent unnecessary risks, injuries, or death

### *Slips:*

Too little friction or traction between feet and walking/working surface, resulting in loss of balance.

Common Causes:

- Water
- Mud
- Grease
- Oil

### *Slips - Controlling Slip Hazards:*

- Keep walking/working surfaces as clean and dry as possible
- Make sure your footwear is as slip resistant as possible
- Require drainage for wet operations
- Clean up or mark and report spills
- Remove ice and snow frequently and regularly

### *Trips:*

Foot or lower leg hits object and upper body continues to move, resulting in loss of balance.

- Stepping down to lower surface and losing balance
- Common Causes:
  - Uncovered hoses, cables, or wires across walkways
  - Clutter, obstacles in aisles, walkway and work area
  - Open cabinet, file or desk drawers, and doors
  - Changes in elevation or unlevel walking surfaces

### *Trips - Controlling Trip Hazards:*

- Aisles and passageways should be well-lit, clean, and marked
- Material storage and work-related scraps should not create trip hazards (cluttered work spaces)
- Trip hazards, such as loose flooring, carpeting, uneven surfaces, and protrusion hazards, should be repaired or reported
- Hoses and cables should be routed away from active work zones and walkways

### *Falls:*

Occurs when too far off center of balance.

Two types:

- Fall same level
  - Fall to same walking or working surface, or fall into or against objects above same surface.
- Fall to lower level
  - Fall to level below walking or working surface.
  - Results from trip or lack of fall protection guarding.

### *Falls - Controlling Fall Hazards:*

- Elevated surfaces: Tanks, towers, machines, and other surfaces
  - It is best to engineer out the need to go up in the first place
  - Guardrails should be properly installed
  - Use safe practices when using a ladder
  - Clearly mark and cover holes or openings
  - As a last resort, use a Personal Fall Arrest System (PFAS)

## **Skid and Pallet Safety:**

Skids and pallets are a simple tool used for moving and storing heavy material. These may be basic in concept, but they can have plenty of hazards that come from them. Whether it's a hurt and sprained backs, being crushed by items, and even something as small as a splinter injuries can peek out from every corner.

### **Pallet and Skid Guidelines:**

Basic guidelines for working with pallets and skids are:

- Never stack or lean pallets on their sides
- Keep pallets clear of doorways and emergency equipment
- Inspect pallet before use for:
  - Missing boards or stringers
  - Loose nails
  - Splinters
  - Cracks
  - Weaknesses

### **Using Pallets and Skids:**

While working with pallets and skids the best way to use them can relieve a lot of potential injuries from occurring. As simple as it is to use lifting it improperly can very much be hazardous.

- When loading ensure weight is evenly distributed
- If lifting a loaded pallet by hand, use two employees to reduce the risk of injury
- Only move one pallet/skid at a time with a forklift
- Use appropriate PPE when handling
  - Proper feet protection
  - Proper hand protection
  - Proper back protection

## **Warehouse Safety:**

Warehouses can be dangerous places for employees and equipment. In these areas, being aware of your surroundings and keeping up with the area will help prevent and remove hazards by keeping the work area in good condition continually, not on an occasion when there is nothing to do.

#### **What's at Risk:**

- 5 in every 100 warehouse workers get injured annually
- 3 in every 100 warehouse workers get seriously injured annually
- American companies lose \$62 Billion per year due to workplace injuries

Almost all of these are preventable

#### **What You Can Do:**

Keeping in mind there is a lot that everyone can do to keep each other safe while working in a warehouse. There are a lot of dangers that come from working in a warehouse, but a few small changes can really keep everyone around incredibly safe.

- Be a Compliant Employee
  - Comply with all safety rules
  - Look out for your fellow employees
- Stave Off From Distraction
  - Watch where you are going
  - Follow designated pathways
  - Yield to oncoming forklifts
- Be consistent
  - Communicate with management
  - Utilize all safety devices

#### **Racking Standards: OSHA 1910.176:**

- 176(a) Keep proper clearance around racking and aisleways
  - Keep at minimum 2 feet walking clearance
- 176(b) Secure storage material
  - Keep items stored fully on racking
  - Leaning material will need addressed properly
- 176(c) Storage areas should be free of material that cause additional hazards
  - Proper housekeeping
  - Proper fire prevention

#### **Compressed Gases:**

Compressed gases can be very useful in both industry and at home; however, they can also be very dangerous. In this session we will learn how to safely handle, transport, and store compressed gases. Following these easy procedures can help keep yourself and your coworkers safe in the work environment.

#### **What are compressed gases?**

- There are an endless variety of compressed gases available, such as: oxygen, argon, nitrogen, helium, acetylene, hydrogen, nitrous oxide, carbon dioxide, ammonia, chlorine. Compressed gas cylinders might contain only one type of compressed gas or special blend with multiple types of gases.
- Compressed gases can be used in bulk forms (i.e., large storage tanks) or brought on-site in portable cylinders.
- Industry uses compressed gases in many ways, including welding, cutting, operating tools (i.e., shop air), transferring liquids, blowing agents, and laboratories.

#### **Risks of working with compressed gases:**

If cylinders are not handled properly, they can become very dangerous to work environments, such as:

- A valve is knocked off a cylinder causing it to shoot across the facility like a rocket
- A leaky cylinder can cause harm, such as struggling to breathe, to employees
- Improperly handled cylinders can spark a fire or even explosion
- Be unaware of the risks working with compressed gas can lead to burning yourself or other around you

### **Handling Cylinders:**

- Whenever moving a cylinder, always make sure the valve is closed and the cap is on. This means that the cylinder must be detached from any equipment, and the regulator must be removed.
- Do not walk a cylinder (i.e., rock it back and forth or roll it along the bottom edge) while holding onto the valve cap. The cap could come loose, causing you to drop the cylinder, and the exposed valve could be knocked off. Now your cylinder has been converted into a rocket.
- Never roll a cylinder on its side. Not only could this damage the cylinder, it also exposes the valve and cap to the hazard of striking a solid object while the cylinder is rolling.
- Use a hand truck that has a proper securing system such as a chain.

### **Storing Cylinders:**

- The cylinder storage area must be dry, well ventilated, and protected from weather such as rain, snow, and direct sunlight.
- Keep combustibles (i.e., wood, paper, cardboard) away from the storage area. Remove any heat sources such as machinery or welding practices. Do not allow a cylinder to become part of an electrical current.
- Do not store cylinders in elevators, staircases, hallways, etc., where people are often traveling. This will increase the risk of knocking over a cylinder.
- Oxygen needs to be stored away from fuel, because if ignited, the oxygen will make the fire spread quickly. Oxygen cylinders must be 20 feet away from fuel sources or separated by a 5-foot-tall, 1/2-hour fire wall.
- Store cylinders in an upright position.
- Secure cylinders with straps, chains, cords or other ways to prevent them from tipping or falling over.
- Make sure cylinders are stored with the valve cap on.
- Sparks, open flames, and smoking are not allowed near cylinder storage areas.
- Cylinder storage areas have various sign requirements depending on the type of gas being stored. Most storage areas will have “No Smoking” signs along with general “Danger,” “Caution,” or “Warning” signs

### **Using Cylinders:**

- When using a cylinder, keep it upright and secure to prevent it from being knocked over.
- Always keep flames, sparks, and electricity away from cylinders. When welding nearby, protect the cylinders with heat-resistant blankets or tarps.
- Do not work with cylinders when your hands or gloves are greasy, oily, or contaminated with flammable substances.
- Open the valves by hand only. If the valve requires a tool, do not use the cylinder. You may accidentally put too much stress on the valve and cause it to break off.
- Open the valve slowly with your hand to the side, not above, the valve. Opening the valve quickly might put undue pressure on the regulator or other systems. Serious injury could occur if the valve were to fail when your hand is above it. Turn the valve with your hand to the side, because the valve handle could become a projectile if the valve were to fail.
- Never tamper with cylinder safety devices. You are putting yourself and others in danger.

### **General Cylinder Safety**

- Only accept and use DOT-approved cylinders.

- Never drop a cylinder.
- Protect cylinders from cuts or abrasions that might be caused by banging into equipment or machinery.
- Never use a cylinder for any purpose other than its intended function of containing a compressed gas. Do not use the cylinder as a roller or some sort of support, such as a sawhorse.
- Never tamper with a cylinder's safety valves.
- Keep the valve stem caps on when cylinders are not in use

### **Staying Hydrated:**

Hydration is an essential part of the human body. As our body is made up to 75% of water, we need to consistently keep replenishing our bodily fluids to keep functioning properly. Water is the best way to keep ourselves hydrated, and there are some basic tips and tricks to keep in mind when wondering about hydration.

### **Benefits of Hydration:**

There are many benefits staying hydrated, and the more you know about it the more you will want to pump more water into your body.

- Regulating internal body temperature
- Metabolizing food and regulating hunger
- Lubricating joints
- Flushing bodily waste
- Producing adequate saliva

Men should drink 16 cups a day

Women should drink 11 cups a day

### **Causes of Dehydration:**

- High heat
- Prolonged direct sun exposure
- High humidity
- Lack of water
- Over exertion
- Little to no rest
- Lack of air flow
- Caffeine, Drugs, and Alcohol

### **Dehydration Symptoms:**

- Feeling thirsty
- Dark yellow, strong-smelling urine
- Using the bathroom less often than usual
- Feeling dizzy or lightheaded
- Feeling tired
- A dry mouth, lips and tongue
- Sunken eyes

### **Tips for Staying Hydrated:**

- Drink a cup of water first thing in the morning
- Add extra flavoring
- Drink a cup of water during each break
- Set daily goal for water consumption
- Focus on your body signals

### **Resources**

- (OSHA, osha.gov)