

How the Coronavirus Can Effect Your Business – Special Report

The first thing you need to do to safeguard your workplace from coronavirus outbreak is go to school on the virus and current health situation. Because the 2019 Novel Coronavirus (2019-nCoV) is so new, we have to rely on government health departments and global health agencies for information about it. Here's a breakdown of the 12 things OHS directors need to know about 2019-nCoV.

Quiz: PPE Legs/Feet

QUESTION

What are some problems of standing in the job?

- A. Accelerates tiredness/fatigue, reduces productivity, flooring issues.
- B. Reduced blood supply to lower extremities, distracts from job responsibilities, inadequate footwear.
- C. Increases risk of foot and leg problems, reduced blood supply to lower extremities, accelerates tiredness and fatigue.
- D. Reduced blood supply to lower extremities, inadequate footwear, and poor personal life style habits.

ANSWER

- C. Increases risk of foot and leg problems, reduced blood supply to lower extremities, accelerates tiredness and fatigue.

WHY IS IT RIGHT

The importance of foot comfort

There are two major categories of work-related foot injuries. The first category includes foot injuries from punctures, crushing, sprains, and lacerations. The second group of injuries includes those resulting from slips, trips and falls. Slips and falls do not always result in a foot injury but lack of attention to foot safety plays an important role in their occurrence.

These two categories of foot injuries, however, do not exhaust the whole range of foot problems at work. There are also other conditions such as calluses, ingrown toenails or simply tired feet that are common among workers. Although these may not be considered as occupational injuries in the strictest sense, they can have serious consequences for health and safety at the workplace. They cause discomfort, pain and fatigue. Fatigue sets up the worker for further injuries affecting the muscles and joints. Also, a worker who is tired and suffering pain is less alert and more likely to act unsafely. An accident or incident of any kind may result.

Working position contributes to the foot problems

Common foot problems occur both on and off the job. Still, there is no doubt that some work-related factors can lead to foot problems, especially jobs that require long periods of standing. Since the human foot is designed for mobility, maintaining an upright stance is extremely tiring. Standing for hours, day after day, not only tires the worker's feet but can also cause permanent damage. Continuous standing can cause the joints of bones of the feet to become misaligned (e.g., cause flat feet) and can cause inflammation that can lead later to rheumatism and arthritis.

Flooring contributes to the foot problems

The type of flooring used in the workplace has an important influence on comfort, especially on tender feet. Hard, unyielding floors like concrete are the least comfortable surfaces to work on. Working on a hard floor has the impact of a hammer, pounding the heel at every step. Slippery floors are hazardous for slips

and falls that can result in sprained ankles or broken foot bones.

Foot-wear contributes to the foot problems

Footwear that fits poorly or is in need of repair also contributes heavily to foot discomfort. Pointed toes and high heels are particularly inappropriate for working footwear.

Examples of workplace foot injuries

Injuries	Common Causes
Crushed or broken feet, amputations of toes or feet	Feet trapped between objects or caught in a crack, falls of heavy objects, moving vehicles (lift trucks, bulldozers, etc.), conveyor belts (feet drawn between belt and roller)
Punctures of the sole of the foot	Loose nails, sharp metal or glass objects
Cuts or severed feet or toes, lacerations	Chain saws, rotary mowers, unguarded machinery
Burns	Molten metal splashes, chemical splashes, contact with fire, flammable or explosive atmospheres
Electric shocks	Static electricity, contact with sources of electricity
Sprained or twisted ankles, fractured or broken bones because of slips, trips or falls	Slippery floors, littered walkways, incorrect footwear, poor lighting.

Foot and leg protection is an important personal protection equipment (PPE)

It involves protecting your employee's feet and legs from injuries they are at risk of during their normal business operations. If your employees might be in risk of something crushing their feet or legs, or puncturing them, you should consider what type of protection they need.

Foot and Leg PPE Protects Employees

Foot and leg protection can protect your workers from damage or injury to their feet that might occur when equipment rolls or pinches their feet or heavy objects falls on their feet. It also protects them from sharp objects like broken glass or nails, molten metal splashing, electrical or chemical hazards, fire explosions, hot and wet surfaces, and slippery surfaces from oil or grease.

Employees Need to Wear Foot and Leg Protection

In general, your workers should always wear foot and leg protection if they are at risk for an injury of their limbs. Specifically, here are some situations where you want to make sure they are protected:

- They are working around electrical or fire hazards.
- Employees working on slippery, oily, hot, or wet surfaces.
- They will be exposed to molten metal that is at risk of splashing their legs and feet.
- There are sharp objects nearby that might harm them, such as spikes or nails that would go through regular shoes.
- Large and heavy tools or equipment could potentially roll over their feet.

The best way to involve workers in programs to protect their feet is to provide:

- Training and information on the health hazards of wearing improper shoes.
- Principles for selecting proper footwear.
- Simple rules of general foot care.
- The inner side of the shoe must be straight from the heel to the end of the big toe.
- The shoe must grip the heel firmly.
- The forepart must allow freedom of movement for the toes.
- The shoe must have a fastening across the instep to prevent the foot from slipping when walking.
- The shoe must have a low, wide-based heel; flat shoes are

recommended.

People buying footwear for work should take the following advice:

- Do not expect that footwear that is too tight will stretch with wear.
- Have both feet measured when buying shoes. Feet normally differ in size.
- Buy shoes to fit the bigger foot.
- Buy shoes late in the afternoon when feet are likely to be swollen to their maximum size.
- Ask a doctor's advice if properly fitting shoes are not available.
- Consider purchasing shock-absorbing insoles when a job requires walking or standing on hard floors.

WHY IS EVERYTHING ELSE WRONG

Workers who should wear protective footwear are those who are exposed to hot substances, corrosive or poisonous materials, molten metal, splashes, falling or rolling objects such as barrels, tools, penetrating materials, (nails, spikes), hot, wet slippery surfaces, or electric hazards. Non-conductive footwear should be worn in electric hazard situations; conductive footwear is required for those who work where there are static electric conditions.

Types of protection for legs and feet are:

- **Leggings** – Protection for lower legs and feet against heat hazards; safety snaps allow leggings to be quickly removed.
- **Metatarsal Guards** – May be strapped to outside of shoes to protect instep area from compression and impact. Usually made of aluminum, steel fiber or plastic.
- **Toe Guards** – Fit over toes of regular shoes, also made of aluminum, steel or plastic.
- **Safety Shoes** – Have heat resistant soles and impact resistant toes. Some have metal insoles for protection from puncture wounds.
- **Foot and Shin Guards** – May be used in addition to toe guards when more protection is needed.

Special Purpose Shoes are Electrically Conductive Shoes, which protect against buildup of static electricity in the body, and produce a spark. This type of shoe is required for those who work in occupations such as explosives manufacturers or grain elevators. Non-Conductive Electric Hazard safety-toe shoes prevent wearers' feet from completing electric circuit to the ground, while working in jobs that may present electric hazards. Foundry Shoes are made of snug- fitting leather, leather-substitute, and have leather or rubber soles, rubber heels. All foundry shoes must have built in safety toes.

Employees working around rolling or falling materials are exposed to foot or leg injuries. They have to use appropriate footwear and leg protection in order to avoid severe injuries. Some working environments involve hot, poisonous or corrosive substances. When workers deal with those dangerous substances, they have to utilize protective gear. Safety garments strike the mind when it comes to working in hazardous environment. They do provide protection against some hazards and to some extent.

If a worker's feet are exposed to electric shocks, it becomes inevitable to wear non-conductive footwear. The nature of hazards can vary from place to place. Some of the common hazards that can injure legs include sparks, moving objects, chemicals, dirt, hot liquids, etc.

Situations where a worker must use foot or leg protection include:

- Heavy materials or machines that can roll onto or fall on a worker's foot.
- Sharp-edged objects such as unguarded machines, nails, tools, etc.
- Molten metals that can splash on legs or feet.
- Slippery or wet surfaces.
- Electric hazards.

SAFETY PLAN

Employers should develop a **Safety Plan** that thoroughly identifies all the present hazards and propose safety measures. Protective

garments and equipment should be designed and provided according to the nature of potential risk. For example, safety footwear must meet minimum compression and performance standards. We can find a variety of footwear.

Safety wear such as coveralls and bib pants are suitable for workers who have to protect themselves against dirt, chemicals, and hot substances. A flame-resistant coverall is a good choice if hazards are limited to sparks and heat.

It can protect most of the body from arms to legs. Workplace hazards that may require safety coveralls include high temperature, harsh weather, metal splash, spray, impact or penetration, dirt, etc. People who have to perform their duties in laboratories should wear leg and foot protection to avoid chemical splashes.

Protective equipment can be a compromise between safety and comfort. Overprotection can limit free movement and make the work uncomfortable. However, custom clothing designed specifically for your size and needs can provide you with both comfort and protection. Safety work wear, of course, provides a limited level of protection.

It is not wise to rely solely on garments when your workplace involves the risk of being splashed with hydrochloric acid. Choose your safety gear carefully and make a good use of it.

Standing on the job not only accelerates tiredness and fatigue, but it also increases the risk of various foot and leg problems because it puts strain on bones, joints, tendons, muscles and ligaments. Standing for long periods of time also causes reduced blood supply to the lower extremities, which promotes soreness. Prolonged standing may also create an accumulation of blood in the foot or around the ankles. [Flat feet](#), [plantar fasciitis](#), [bunions](#), [edema](#) (swelling), [varicose veins](#) and venous insufficiency are all problems associated with prolonged standing.

Fortunately, there are many ways to reduce or avoid the risks of foot and leg problems if you must stand a lot at work.

Take More Seated Breaks

1. **Sit down more often while working.** Although many jobs in modern times are sedentary and involve sitting, there are still some jobs that involve lots of standing, such as bank teller, cashier, factory worker, chef, hairdresser and various retail and construction jobs, to name a few. However, there are often opportunities to sit and rest your feet while still working and being productive, so look for those opportunities and be sure to tell your boss what you're up to. For example, sitting while answering the phone or filling out paperwork might be appropriate at your workplace, especially if there are no customers around.
 - Aged people are more susceptible to foot/leg injuries from excessive standing because their tissues (ligaments, tendons, cartilage, fascia) lose elasticity and shock absorberency.
2. **Sit down during lunch.** When you take your lunch break, make sure to grab a seat and put your feet up while eating and hydrating. You may be in a hurry, but take advantage of the opportunity to take the weight off your feet. If your workplace is short of chairs or doesn't have a lunch room, then either bring your own folding chair or stool, or find a different location to eat where you can safely sit down.
 - Food courts at malls, outdoor picnic tables, water fountains, or even some clean grass under a tree are all good places to take a load off and enjoy your lunch.
3. **Sit down during breaks.** Make sure to take all of your allotted breaks and try to sit the entire time, preferably with your legs up, which promotes better circulation because of the reduced effects of gravity. Taking off your shoes while resting will also allow your feet to cool down by evaporation.
 - While on your break, consider rolling your bare feet over a golf ball. It will feel great, relieve some tension in the soles of your feet and maybe even help prevent plantar fasciitis (pain and inflammation of

the connective tissue covering the bottom of your feet).

Change Your Substrate

1. **Stand in a different spot.** Many years ago, most workplaces were made with wood floors, which have some cushioning even though they may seem pretty hard to walk on. However, in modern times, most businesses tend to have floors made from concrete, ceramic tile or marble, which have essentially no cushioning, shock absorbency or isolative properties. Consequently, stand in an area that's covered in more springy material such as wood. If that's not possible, then change positions just for the exercise, which will promote blood circulation and may ease the tension in your feet and leg muscles.
 - Concrete and ceramic tile will easily transfer cold to your feet which is not good for blood circulation, so stand in warmer areas without cool drafts.
 - If you work outside, find some grass to stand on while plying your trade or waiting for the next task.
2. **Stand on an anti-fatigue mat.** Anti-fatigue mats are designed to decrease the stress on your feet and legs by providing a cushioned surface to stand on over prolonged periods of time. These mats are typically made of thick rubber, but some are also made of foam, leather, vinyl or even wood. In many cases, your employer will readily supply you with an anti-fatigue mat if you ask because they are proven to reduce the incidence of feet and lower leg problems.
 - Thick anti-fatigue mats can be a minor hazard at the workplace if people trip over them, so always be aware of where your mat and those of your co-workers are located.
3. **Stand carpeting.** Take a look around your workplace and see if there's any carpet you can stand on and still be able to do your job properly. Carpet (even the thin, cheap stuff) provides much more cushion than concrete and will help your feet and legs survive the long shifts at work. If there is

no installed carpet at your workplace, ask your boss if you can bring a piece from home.

- Some businesses that sell carpet will give you a decent sized sample (big enough to stand on) for free.
- Make sure the underneath side of the carpet doesn't slide too readily on the floor, or else you're at high risk to slip and fall.

Wear appropriate shoes and socks

1. **Wear shoes that fit properly.** A significant percentage of people wear shoes that don't fit, perhaps because their feet suddenly increased in size, or because the shoes were on sale super cheap, or because they were passed down from a relative or friend. Either way, always wear shoes to work that properly fit your feet while wearing socks. If you absolutely have to choose a pair that aren't your size, then pick a pair that is too big rather than shoes that are too small because cramped shoes often lead to blisters and foot cramps.
2. **Don't wear high heels.** Women are often expected or pressured to wear high heels for many jobs, but heels more than 2 inches (5.1 cm) high can force the body to tilt forward, which creates a variety of imbalances from the feet to the low back. This situation can cause foot strain, Achilles tendonitis, tight calf muscles, knee pain and low back problems, as well as instability while walking.
3. **Don't wear narrow shoes.** High heels are often too narrow at the toe, which compresses the toes together unnaturally and increases the risk of painful bunions and unsightly calluses. Cowboy boots and some swing back sandals are also too pointy in the toe, especially if you plan on doing lots of standing. Instead, choose shoes that grip your heel tightly, provide enough room to wiggle your toes, and has enough interior support to prevent pronation (the rolling inward or collapsing of your ankle).
4. **Wear compression stockings.** Compression stockings provide

support to muscles and blood vessels of the lower leg, which reduces edema / swelling and promotes better circulation. They are found online, at medical supply stores and sometimes at pharmacies or physiotherapist offices. Alternatively, wear supportive pantyhose or well-padded socks.

Try Helpful Therapies

1. **Take a [foot bath](#).** Soaking your feet and lower legs in a warm Epsom salt bath can significantly reduce pain and swelling. The magnesium in the salt is thought to help the muscles relax. If inflammation and swelling is a problem for you then follow the warm salt bath with an ice bath until your feet feel numb (about 15 minutes or so).
 - Always dry your feet thoroughly before you get up and walk away from your foot bath in order to prevent slipping and falling.
 - Epsom salt baths are thought to be helpful for alleviating [restless leg syndrome](#) at night, which negatively impacts sleep cycles.
2. **Get a massage.** Get a massage therapist or sympathetic friend to give you a foot and calf massage. Massage reduces muscle tension and promotes better blood flow. Start rubbing from the toes and work towards the calf so you help the venous blood return to the heart. Using a wooden roller under your feet will give you a decent massage by yourself without straining your hands. Consider applying peppermint lotion to your feet also, as it will tingle and invigorate them. After the massage, perform a few foot and calf stretches on both legs.
 - Stretch the calf muscles by leaning against a wall with one knee bent and the other leg straight out behind you with both feet flat on the floor – hold for 30 seconds and repeat a few times.
 - Stretch the bottom of your foot by wrapping a towel around the end of your toes and then trying to extend your leg – hold for 30 seconds and repeat of few times.

3. Wear shoe orthotics. Orthotics are custom-made insoles for your shoes designed to provide arch support, shock absorption and better foot biomechanics, which can translate into less foot/leg/back pain and reduced risk of various foot and leg conditions. Orthotics are particularly helpful for treating and preventing plantar fasciitis, a very painful condition of the bottom of the foot, and flat feet. Custom orthotics can be expensive without medical coverage, but off-the-shelf insoles may provide benefit also.

- It's estimated that about 2 million people require treatment for plantar fasciitis in the United States every year.
- You may have to buy shoes a little bigger than you normally would in order to accommodate the orthotics.

4. Lose some weight. In general, people who are overweight or obese suffer more foot problems because of the increased amount of pressure on their feet. Flat feet, fallen arches, severe pronation, and "knock knees" (medically known as genu valgum) are more common among the obese. As such, do your feet a favor by losing some weight. Lose weight by increasing cardiovascular exercise (such as walking) and decreasing your caloric consumption.

- Most people who are relatively sedentary only require about 2,000 calories per day to maintain their body processes and have enough energy for mild levels of exercise.
- Reducing your calorie intake by 500 calories daily will result in about 4 pounds of fat tissue loss per month.

Foot and leg protection choices include the following:

- Safety-toed shoes or boots protect against falling, crushing or rolling hazards. Safety-toed footwear must meet the minimum compression and impact performance standards in ANSI Z41-1999 or provide equivalent protection.
- Some safety shoes may be designed to be electrically conductive to prevent the buildup of static electricity in

areas with the potential for explosive atmospheres or nonconductive to protect workers from workplace electrical hazards.

- Metatarsal guards protect the instep area from impact and compression. Made of aluminum, steel, fiber or plastic, these guards may be strapped to the outside of regular work shoes.
- Toe guards fit over the toes of regular shoes to protect the toes from impact and compression hazards. They may be made of steel, aluminum, or plastic.
- Rubber overshoes are used for concrete work and areas where flooding is a concern.
- Shoes with slip-resistant soles are required for certain departments and should be used in areas where slips and falls on wet floors are most likely.
- Studded treads and overshoes should be used when employees must work on ice or snow-covered walking surfaces.
- Leggings protect the lower legs and feet from heat hazards such as molten metal or welding sparks. Safety snaps allow leggings to be removed quickly.

Foot Injuries can be prevented

There is no workplace where a worker is immune to foot injury. However, the hazards differ according to the workplace and the types of tasks the worker does. The first step in developing a strategy to reduce foot problems is to identify the relevant hazards at the workplace. Such hazards should be assessed in each workplace, no matter how safe or how dangerous it may seem. Foot injuries then can be prevented by looking for measures through proper job design and/or workplace design, and identifying proper foot wear.

Job Design Improve Foot Safety

Aching, flat or tired feet are common among workers who spend most

of their working time standing.

The most important goal of job design is to avoid fixed positions especially fixed standing positions. Good job design includes varied tasks requiring changes in body position and using different muscles. Job rotation, job enlargement and team work are all ways to make work easier on the feet.

- Job rotation moves workers from one job to another. It distributes standing among a group of workers and shortens the time each individual spends standing. However, it must be a rotation where the worker does something completely different such as walking around or sitting at the next job.
- Job enlargement includes more and different tasks in a worker's duties. If it increases the variety of body positions and motions, the worker has less chance of developing foot problems.
- Team work gives the whole team more control and autonomy in planning and allocation of the work. Each team member carries a set of various operations to complete the whole product. Team work allows workers to alternate between tasks which, in turn, reduces the risk of overloading the feet.
- Rest breaks help to alleviate foot problems where redesigning jobs is impractical. Frequent short breaks are preferable to fewer long breaks.

Foot Safety in Workplace

Job and workplace designs also have the potential to increase foot safety in workplaces that are specifically hazardous. Here are some examples:

- Separating mobile equipment from pedestrian traffic and installing safety mirrors and warning signs can decrease the number of incidents that might result in cut or crushed feet or toes.
- Proper guarding of machines such as chain saws or rotary mowers can avoid cuts or severed feet or toes.

- Effective housekeeping reduces the number of incidents at workplaces. For example, loose nails, other sharp objects, and littered walkways are hazards for foot injury.
- Using colour contrast and angular lighting to improve depth vision in complicated areas such as stairs, ramps and passageways reduces the hazard of tripping and falling.
- Posting safety signs in conspicuous places where safety foot wear is required when there is a potential hazard from falling objects, sharp objects, etc.

Floors can improve foot comfort

Standing or working on a hard, unyielding floor can cause a lot of discomfort. Wood, cork, carpeting, or rubber – anything that provides some flexibility – is gentler on workers' feet. Where resilient floors are not practical, footwear with thick, insulating soles and shock-absorbing insoles can alleviate discomfort. Anti-fatigue matting can also be useful wherever workers have to stand or walk. They provide a cushioning which reduces foot fatigue. However, the use of matting requires caution. When installed improperly, it can lead to tripping and slipping incidents.

Special anti-slip flooring or matting can reduce slipping incidents. If installed properly, these mats are useful, but workers may find that their feet burn and feel sore. The non-slip properties of the flooring mat cause their shoes to grab suddenly on the flooring making their feet slide forward inside the shoes. Friction inside the shoes produces heat that creates soreness and, eventually, calluses. A non-slip resilient insole can reduce this discomfort.

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 - Using Discipline to Make the Workplace Safer;
 - Portable Space Heater Safety;
 - Six Steps for Machine Safety
 - Fire Safety Tool;
 - Working at Heights Fatality File;
 - Safety Talks on Close Calls/Near Misses, Chemical Safety and Seasonal Safety;
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What is table saw kickback and how to prevent it from happening

A table saw should be approached with a healthy level of fear and respect. While it is one of the most versatile tools in a woodworker's arsenal, it can be dangerous when used without care. According to the National Center for Biotechnology Information, table saws cause [over 30 thousand injuries each year](#) in the United States alone, with kickbacks being one of the main causes of accidents. In this article, we will discuss the steps you can take to avoid kickback on your table saw.

In short, here are the 7 tips:

- **Have Basic Safety Features In Place** – Always use a riving knife or at least a splitter
- **Do Not Crosscut With The Rip Fence** – Instead, use a miter gauge or a crosscut sled
- **Use A Push Stick** – This will give you better control and

keep your hands away from the blade

- **Do Not Cut Crooked Stock** – Crooked boards can be dangerous to work with on a table saw
- **Check Your Blade** – Maintain your blade and make sure it's sharp and straight
- **Be attentive** – Stay alert when working on a table saw

What Is Table Saw Kickback?

Kickback is a situation when wood gets picked up by the blade and violently thrown at you, which happens way faster than you can react. This usually occurs when the workpiece pinches the blade or gets stuck between the blade and the rip fence.

Table saw kickback usually occurs under these sets of circumstances:

- A board can kick back during a rip cut when it goes halfway through the saw and the kerf starts pinching the blade. At best, this will lead to the stalling of the saw. If your table saw is powerful enough, the blade can propel the board right at you or flip it up and hit you in the face.
- A workpiece can also get stuck between the rip fence and the back of the blade. As the blade spins, it can throw the workpiece back at you. Avoid this by making sure that the fence of your table saw is perfectly aligned in relation to the blade.
- When a piece of wood makes contact with a tooth at the back of the blade. It then gets lifted up on top of the blade and thrown back at you with great force. Worst of all, your hand can get drawn into the blade and cause an amputation. This happens way faster than you can react.

How to avoid kickback on a table saw

Follow these tips to reduce the risk of hurting yourself from kickback on a table saw.

1. Have basic safety features in place

[Modern table saws](#) come equipped with safety features that are designed to keep you out of harm's way.

One of those features is a riving knife. A riving knife is a piece of metal that stays close to the teeth at the back of the blade. It prevents the workpiece from pinching the blade or touching its teeth on the back. The good thing about it is that it goes up and down together with the blade, providing support regardless of what height the blade is set at.

Source: wikipedia.org

A riving knife should be installed at all times, even if you are just making singular cuts. The only time when you should remove the riving knife is when you use a dado set. Fortunately, as per [Underwriters Laboratories UL 987 Standard for Stationary and Fixed Power Tools](#), all table saws produced after 2008 must be fitted with riving knives that rise and fall with the blade.

For older saws, you will want to at least use an insert with a splitter that will act similar to a riving knife and keep the workpiece from squeezing the blade. Splitters are not as effective as riving knives, though, because they don't rise or go down as you adjust the blade height.

As you can see in the image above, lowering the blade will create a very wide gap between the blade and the splitter. This way, your workpiece can get caught by the blade on the end.

The blade guard is another piece of safety equipment that was created to reduce the chances of you getting hurt. A common misconception is that the purpose of a blade guard is to keep your fingers from touching the blade. While it does act as a reminder to keep your hands away, the blade guard is actually designed to keep you from dropping the workpiece on top of the blade.

Some woodworkers tend to remove the blade guard as it can obscure the view and lead to inaccurate cuts. If you are yet to get the hang of how to correctly operate a table saw, you should better keep the blade guard on.

2. Never Make Free-Hand Cuts

Free-hand table saw cuts are only made by stupid people in stupid TV commercials. There should be no free-hand table saw cuts in your workshop. All table saws come equipped with [rip fences](#) and miter gauges for a reason. For rip cuts, you have a rip fence to support your stock while you push it through the blade. A miter gauge works as a support to help you make crosscuts.

With that being said, do not crosscut using the miter gauge and the rip fence at the same time. If you do that, your workpiece can get jammed and cause kickback. This leads us to rule #3.

3. Do not Crosscut With The Rip Fence

We value the table saw because it allows us to easily make rip cuts. But what if you need to make a few quick crosscuts to cut a board into several pieces of identical length? If that's the case, do NOT use the rip fence as a supporting barrier for crosscutting.

If you do that, the workpiece can get stuck between the fence and the blade. As we've discussed earlier, this can lead to the board getting thrown back at you by the spinning blade. The problem can get exacerbated even further if your fence is out of alignment with the blade, pushing the workpiece onto the back of the blade and lifting it up.

You also have to understand the dynamics of dimensions of your workpiece if you crosscut and use the fence as support. Basically, the width of the board (i.e. the distance between the blade and the fence) cannot exceed its length.

If the length of the board is lesser than its width, the torque generated by the blade can cause the workpiece to spin towards the back of the blade. Kickback is actually the least bad thing that can happen here. What's worse, your hands can get drawn into the blade which will lead to an amputation.

There are many ways to safely crosscut on a table saw. You can clamp a stop block to the fence for accurate measurement of length and use the miter gauge to guide your stock through the blade.

This way, you eliminate the risk of your workpiece getting squeezed between the fence and the blade.

Another popular option is building a [crosscut sled](#). A crosscut sled is a moving platform that you insert into the miter slots to guide your workpiece through the blade. This is by far the safest, fastest and most convenient method of crosscutting on a table saw.

4. Use A Push Stick

Truth be told, no single measure will give you 100% protection from kickback. With that said, it is smart to use a push stick or a push block whenever you make a cut. A push stick will keep your hands further away from the blade. In case kickback does happen, you can be sure that your hand won't get drawn into the blade. Additionally, a push stick itself will act as a kickback counter-measure because it gives you better control of the stock.

Now, there are a few things you have to know about using a push stick. First of all, place the stick in the middle of the board. Pushing the stock on the side can make it twist and move towards the back of the blade. Apply more force towards the side of the fence, and not towards the blade when pushing stock.

Take special care when pushing wood which is hanging off the side of the table saw. Do not apply downward pressure to the end of the stock. This can cause it to rise on the other side, get lifted up by the back teeth of the blade and smack you in the face. You can even use two push sticks to guide the board on both ends.

5. Do not cut crooked stock

The uneven surface of the board does not allow for continuous contact with the rip fence or miter gauge. As the saw goes through the crooked grain, this can release pressure at the spot where the board is warped, crooked, or twisted, then press on the blade and cause kickback. Additionally, take extra care when working with boards that have a lot of knots as they can also lead to pinching of the blade.

6. Check your blade

A dull saw is an unsafe saw. A dull blade will have trouble with cutting stock, which will lead to overheating and warping. This leads to misalignment between the blade and the fence. In short, never use a blade that is broken or warped.

7. Be Attentive

When you don't feel your best, be it due to common cold, bad night's sleep or getting cut off (no pun intended) by some a-hole on the road, don't touch the table saw. Personally, when I don't feel like I'm not in my best shape physically or mentally, I tend to stay away from any tools that can make me lose my appendages.

Imagine your cut before you make it. Visualize the movement trajectory of your workpiece and have a plan to push it all the way through the blade. If the cut feels weird, don't do it. Take a step back and come up with a way to complete the cut safely. Do not stand in an awkward position where you may lose your balance.

Anticipate how the dimensions of your workpiece and your method of guiding it through the saw can lead to kickback. Don't let your guard down and be attentive. If you feel sleepy or groggy, allow yourself some rest and return to the workshop tomorrow.

The Final Kick

Kickback is by far the most dangerous event that can occur on a table saw. Without proper care, you can get hit with a flying piece of wood or get severely hurt by a spinning blade. It is paramount that you do everything possible to prevent kickback from happening.

Following the steps in this guide should help you reduce the risk of kickback in your workshop. I really hope you follow these steps and make a conscious effort to maximize the [table saw safety](#) when woodworking.

Source: WoodsmithSpirit.com

Workplace Violence and Harassment Enforcement – An Update

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Managing Health, Safety and Information Security Cost Effectively In the New Normal

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Quick Course – First Aid – Burns

Course Description

In this quick course, you will learn first aid techniques for dealing with burns sustained by yourself or coworkers while on the job.

Quick Course – First Aid – Poisoning

Course Description

In this quick course, you will learn first aid techniques for dealing with your own and others' poisoning while on the job.

Quiz: What are the Hazardous Conditions that warrant head

protection?

QUESTION

What are the Hazardous Conditions that warrant head protection?

- A. Objects falling from above striking employees on the head, accidental head contact with electrical hazards, slipping and tripping on greasy floors.
- B. Scaffold work at high-sites, derrick rig operations in oil and gas, operations, high tower, cable riggers.
- C. Trench/excavation operations, high tower cable riggers, falling and hitting head on construction sites.
- D. Accidental head contact with electrical hazards, bump heads against fixed objects to exposed pipes or beams, objects falling from above striking workers on the head.

ANSWER

- D. An Accidental head contact with electrical hazards, bump heads against fixed objects to exposed pipes or beams, objects falling from above striking workers on the head.

WHY IS IT RIGHT

Being at risk for a head injury is dependent on your work environment and its associated hazards, as not all working environments require head protection. However, when it is required, a worker must wear protection even when there are no apparent signs of danger. Industries like construction, power, oil and gas, mining, forestry, and others enforce such standards as the risk of head injury to workers is continuously present.

Employers must ensure their workers wear head protection if they are at risk of these common hazards:

1. Being struck by falling objects
2. Bumping their heads on fixed objects
3. Coming into contact with electrical hazards

These common hazards encompass most ways in which a potential

injury could occur, and they can have different meanings depending on the work environment. Understanding the potential hazards at your workplace is imperative in assessing the type of PPE needed to keep injuries at bay.

Injuries to the head are life-changing. Head injuries can result in long-term damage and death, with injuries often including memory loss, fractured bones, and spine damage – some of which cannot be cured.

In 2012, more than 65,000 cases involving days away from work occurred due to head injuries in the workplace (according to the 2015 edition of the National Safety Council chartbook “Injury Facts”). That same year, 1,020 workers died from head injuries sustained on the job.

Traumatic brain injuries (TBI) are the primary type of head injuries. TBI is a significant cause of death and disability in the United States, **contributing to about 30% of all injury death**. Despite the security given to workers from the safety helmet standard, there are still incidents of traumatic brain injury, especially in construction, where there were **2,200 fatalities between 2003 and 2010**.

However, according to a survey about worksite accidents and injuries conducted by the Bureau of Labor Statistics (BLS), 84% of all workers who suffered head injuries were not wearing head protection.

Traumatic brain injury (TBI) is a common cause of case-fatality, cognitive impairment, and post-injury functional disability. Furthermore, even mild TBI can have long-term consequences. Severe TBI is a catastrophic event that can potentially result in a devastating socioeconomic life since the sequelae affects multiple aspects of daily life; however, there was no evidence showing that therapeutic interventions after suffering severe TBI can effectively improve the functional outcome. Therefore, efforts directed towards awareness of hazard and injury prevention are emphasized to reduce the public health burden of TBI. Work-related TBI is caused mainly by falls, motor vehicle crashes, and assaults

in manufacturing and construction industries, and it is avoidable by developing preventive measures. However, interventions with the goal of preventing TBI resulting from fall injuries are not available in the current workplace environment.

Safety helmets are useful protective equipment, which reduce the risk of TBI and death resulting from sports activities as well as motorcycle and bicycle accidents. However, the preventive effect of safety helmets on health outcomes resulting from work-related fall injuries has not been verified mainly because safety helmets have been primarily used to prevent workers from experiencing head injuries caused by falling or flying objects.

Safety precautions that focus on reducing the risk of TBI resulting from fall injuries are limited in the current workplace environment. In addition, research studies that focus on the effect of safety helmets on reducing the risk of TBI resulting from work-related fall injuries are rare.

WHY IS EVERYTHING ELSE WRONG

Head Protection in The Workplace

There are many ways in which a worker can sustain a head injury within the workplace some of which can have devastating consequences. While some slip and fall accidents are often quite easy to avoid by keeping the work area free of water or chemical spills, accidents caused by defective equipment, those incurred when operating heavy machinery, or from falling object can be hard to detect.

Head injuries can be fatal and may affect an individual's ability to work for the rest of their natural life. However, when important, yet often ignored, safety measures are regularly observed, such as wearing a hard hat for head protection, may avert millions of the nonfatal workplace injuries that workers experience each year.

Under Occupational Safety and Health Administration's (OSHA) head protection regulation, employers are required to provide hard hats for employees who work near exposed electrical conductors that may

contact the head to decrease the risk of electrical shock. Workers must also wear head protection gear when working in places where they can easily bump their head, such as when working near exposed pipes, around conveyor belts or other machinery that may cause objects to dislodge and fall including working at heights.

HEAD PROTECTION

Hard Hat Standards have been established by Canadian Standards Association (CSA) and the American National Standards Institute (ANSI).

Hard Hats must protect the wearer's head against impact and against small flying or falling objects. It must be able to withstand an electrical contact equal to 20,000 volts phase-to-ground.

The wearer and the employer need to know the use and care of employee hard hats.

- Inspect the shell, suspension, and liner every day before you use it. Look for cracks, dents, cuts, or gouges. Replace damaged or worn hats and liners immediately.
- If a hard hat is struck by an object, do not keep using it.
- Don't store your hard hat in direct sunlight—it will age quicker and can become brittle.
- Clean the shell, suspension, and liner regularly with mild soap and water.
- Never alter your hard hat by painting it, making holes in it, etc.
- Don't carry things inside your hard hat.
- Don't wear a baseball cap under your hard hat.
- Use a hard hat with a chinstrap when working at heights or in windy conditions.
- Check the service life of your hard hat by contacting the manufacturer or reading the manufacturer's instructions.
- Putting retroreflective stickers or tape on a hard hat can help workers be seen by moving vehicles and equipment in conditions where visibility is reduced. However, the stickers or tape must be compatible with the surface material, not adversely affect the material, and not

interfere with the ability to inspect the hard hat for defects. Place them at least 13 mm (1/2 in) above the edge of the brim.

- Hard hats must safely absorb the shock of a falling object.
- It must prevent an object from penetrating it.
- It must fit a worker's head properly.
- It must be water resistant.
- It must burn slowly when in contact with fire.

There are ways that a business can stay in Occupational Safety and Health Administration compliance. One simple way is to ensure that each worker is wearing the proper Personal Protective Equipment (PPE) at all times. Employers should also ensure that their workers stay up to date with OSHA education and training and make sure that such educational material is readily and regularly available to everyone within the organization.

Every worker must, therefore, ensure that they are wearing the right PPE at all times, especially head protection where there is a potential for objects falling from above or accidental head contact with electrical hazards so as to minimize injuries to themselves and those around them.

Face Up to Proper Face Protection

It is critical that workers know how to shield their faces from specific hazards.

Doing a hazard assessment and establishing a policy are prerequisites to providing adequate face protection as part of a worker's PPE.

The American National Standard Institute's (ANSI) Z87.1-1989 standard for eye and face protection establishes criteria used by OSHA in its standard, 29 CFR 1910.133. ANSI Z87.1 states that face shields must only be worn over eye protection.

Suitable face protectors must be provided where there is a potential for injury to the face from flying particles, molten metal, liquid chemicals, acids or caustic liquids, chemical gases or vapors, potentially injurious light radiation or a combination

of these.

Not all employers, though, have an adequate face protection policy or ensure that their employees adhere to it. Workers injured in the face who were surveyed in a Bureau of Labor Statistics (BLS) study indicated that face protection was not normally used in their line of work, or it was not required for the type of work performed at the time of the accident.

Face protection with proper face shields and safety helmets are very useful, protective equipment that reduce the risk of injuries in the current workplace. The head and face demand that no steps or procedures or equipment should be avoided or missed in the role of protection in workplace activities.

Head and face protection knowledge, training, and care and maintenance of head and face shields anything else is wrong!

Quiz: PPE – Hands, Wrists and Fingers

QUESTION

What are the three kinds of Hazards that have the potential risk of hand and finger injury?

- A. Power tools, hand tools, extreme hot or cold temperatures.
- B. Chemical applications, contact hazards, jewelry and loose clothing.
- C. Personal hazards, personal protective equipment, substitution.
- D. Mechanical, Contact, Personal.

ANSWER

D. Mechanical, Contact, Personal.

WHY IS IT RIGHT

Our hands, wrists and fingers are valuable tools, the most valuable we'll ever own.

A hand injury, such as the loss of a finger, a broken bone, nerve damage, MSD, or skin disorder, can interfere with a worker's job performance and quality of life – and even end a career. Work-related hand injuries are also costly to the employer, in terms of lost work time and productivity, and higher insurance rates.

27 bones, 20 muscles and dozens of tendons and ligaments. Add blood vessels and nerves to feed and control the moving parts, and you have one of the more brain power than other body parts, your hands are involved in almost everything you do. Yet many things are done without any deliberate thought or anticipation of danger.

Because it is so well designed and useful, the hand is usually where the action is and is the part of the body most likely to be injured. In the Ontario mining industry, approximately 50% of all hand and finger injuries are cuts or puncture wounds. One out of every 10 hand injuries results from the improper use of hand tools and four out of ten injuries occur in the handling of materials. Among the leading causes of hand and finger injuries are failure to follow procedures, using the wrong tool for the job, inattention, and failure to wear personal protective equipment.

Traumatic injuries, contact injuries and repetitive motion injuries are the most common types of hand injuries.

Traumatic injuries can occur from the careless use of tools or machinery. Hands and fingers may get caught, pinched or crushed in chains, wheels, rollers, or gears. They may be punctured, torn or cut by spiked or jagged tools and edges that shear or chop.

Contact injuries can occur from contact with solvents, acids, cleaning solutions, flammable liquids and other substances that

burn or injure tissue.

Safety precautions to minimize contact injuries include reading product labels and Material Safety Data Sheets, using the correct gloves or barrier cream, and washing your hands frequently.

When tasks require repeated, rapid hand movements for long periods of time, repetitive motion injuries can occur. These injuries often disable the soft tissue and joints of the body. Examples of repetitive motion injuries include tendinitis, tenosynovitis, "tennis elbow," carpal tunnel syndrome and white finger. To avoid muscle strain in your hands, change your grip, hand position or motion. If possible, alternate tasks to give your hands a rest.

White Finger is also known as Raynaud's phenomenon due to HandArm Vibration exposure (HAVS). Workers exposed to vibration are the most likely to show signs of this disease. Repeated surveys find that about 50% of people using rock drills or other tools with high vibration have HAVS. Hand-held power tools such as chain saws, jackhammers and pneumatic rock drillers and chippers are the primary culprits. Damage can also extend to nerves, muscles, bones and joints of the hand and arm. This condition is a blood circulation and nerve disorder that is aggravated by the exposure to cold temperatures. Attacks can occur at work or at home, such as while fishing, golfing, or touching cold objects. Severe cases of Raynaud's phenomenon may cause disability, and rare, severe cases can lead to a breakdown of the skin and gangrene.

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

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

get cut on sharp edges of tools, materials, packaging, containers or even debris from a manufacturing process. These hazards also include electrical current, chemicals, and extreme hot and cold temperatures.

- Personal Hazards – these hazards include wearing jewelry, loose clothing or using improper or defective personal protective equipment.

MECHANICAL HAZARDS

When working with using equipment:

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

When using portable power tools:

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

When using hand tools:

- Make sure you are using the correct tool for the job – no improvising.
- Select the right size and head style for screwdrivers.
- Screw drivers are not pry bars, scrapers, chisels or puncturing tools.
- Use a wood chisel for wood and a cold chisel for metal.
- Select the right type and size of wrenches and pliers for the job.
- Never use a cheater bar on a wrench.
- Look the tool over to be sure it is in good working order and not damaged in any way.
- Never use a hammer with a splintered, cracked or loose handle.

- Don't use a chisel with a mushroomed head.
- Don't use pliers with worn grooves or adjustable wrenches with worn or sprung jaws.
- Use penetrating oil on rusted nuts and bolts – give it time to work.
- Secure your work in a vise or a bench.
- Don't hold it in your hand.
- Use a locking pliers when grinding, trimming or cutting small parts.

When handling or moving materials and equipment:

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

CONTACT HAZARDS

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

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

If you can't see:

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

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

- Keep blades on knives and tools sharp.
- Wear cut-resistant gloves.
- Use the right knife and blade for the material being cut.
- Check the path the knife will follow before starting a cut.

- Keep momentum away from your body when cutting.
- Dispose all sharps in a labeled-sharps container; not the regular trash bin.

PERSONAL HAZARDS

Make wise choices before you start working about what you are wearing:

- Remove rings, watches and bracelets when working with tools, machinery or if they could get caught on anything.
- Make sure sleeves or other loose clothing can't get caught in or on anything.
- Select the right work glove for the job and make sure they fit properly – not too tight and not too loose.
- Inspect gloves for tears, holes and wear.

Wash hands frequently to keep them safe:

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

WHY IS EVERYTHING ELSE WRONG

9 Ways To Protect Your Hands At Work

In almost every work environment, hands play an important role – but that also means hands are particularly vulnerable to injury. Most hand injuries result from physical or chemical hazards which can cause burns, bruises, cuts, and fractures to name just a few. Fortunately, these injuries can be prevented by using some common sense tips:

1. Protect your hands when working with chemicals, hot substances, sharp objects and other common workplace hand hazards.
2. Avoid using strong solvents or gasoline to clean your hands.
3. Use the proper tool for the job and if using power tools, be

sure you know how to use them safely. Never operate machinery or power tools under the influence of alcohol or drugs – even prescription drugs.

4. Wear appropriate gloves to protect against particular hazards.
5. Be mindful of where both hands are placed at all times while working, especially when working with machinery.
6. Avoid using hands to feed material into machines.
7. Never use your hands to sweep up glass, metal shavings, wood chips, or other sharp objects.
8. When working with rotating machinery avoid wearing long sleeves, jewelry or anything that can catch into the machine.
9. Stretch your hands and fingers from time to time to give tense and tired muscles & tendons a chance to relax.

Prevent Hand and Finger Injuries

Allow rotating parts to come to a stop before working on them:

- Do not use your fingers to retrieve objects from saw blades, knife blades or parts moving together.
- Do not use your fingers to retrieve dirt or other objects from rotating parts of machinery, such as the blades on a rototiller.

Perform maintenance only when the tool or machinery is not in operation:

- Use the lockout/tagout procedure during maintenance. If the guards are removed to perform maintenance, replace them immediately after servicing.

Know when to wear gloves:

- Wear gloves if your hands will be exposed to hazards causing cuts, scrapes, or temperature/chemical burns.
- Do not wear gloves around reciprocating or rotating machinery. Gloves can get caught in the device and draw in your hand, which can cause serious injury.

Handle sharp or pointed tools carefully:

- These types of tools include but are not limited to hatchets, pruning shears, punches, knives, pitchforks and machine blades.

Be aware of hot and cold surfaces:

- Do not use your hands or fingers to test the temperature of a liquid or a solid surface.
- Let engines and other hot parts on machinery cool down before performing maintenance.
- Do not wear rings when operating or repairing machinery, or performing electrical work:
- Machinery should be operated as designed and within specified limitations.

WRIST INJURY PREVENTION

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

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

Potential MSDs of the Wrist

- tendonitis
- carpal tunnel syndrome
- ganglion cysts
- trigger finger
- DeQuervain's

Think Prevention!

There are a number of things we can do to decrease the risk of wrist fatigue and discomfort for team members.

1. Ergonomic Design Principles

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

Ergonomic Design Principles for Wrist Injury Prevention:

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

2. Educate and Train Team Members

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

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

3. Recognize and Report Early Signs of MSDs

At the first signs of excessive fatigue and discomfort, team members should be trained to recognize it and strongly encouraged to report it. When an early report is received, an [on-location preventative health care professional](#) should conduct a one-on-one early intervention consultation to identify the root causes and

help the team member utilize injury prevention best practices.

There is a seven-step safety approach that to take in preventing workers from becoming just another hand injury statistic.

Step 1: Eliminate the Hazard

Chances are, the idea of eliminating a workplace hazard sounds either obvious or silly to a safety professional. The truth is, it's the absolute easiest and best way to reduce on-the-job injuries.

The first step is to see if there are any hazards that you can remove with engineering or job controls. According to OSHA, many industries have found successful ways to eliminate hazards and improve employee safety.

OSHA says, "Controlling a hazard at its source is the best way to protect employees." An example of doing so would be building a barrier between the hazard and the employee (engineering control) or changing the way in which employees perform their work (administrative control).

Step 2: Upgrade Equipment

Using outdated equipment can increase the danger of a hazard that can't otherwise be eliminated. Assess your workplace equipment with the help of a safety expert to determine whether upgrades or updates could help prevent injuries.

Step 3: Re-Engineer Equipment

Engineering or administrative controls always should be considered first when seeking to eliminate workplace hazards. Some examples of this are moving employees away from noisy equipment to eliminate noise exposure, installing two-handed safety control interlocks and light curtains to stop equipment from running when hands are

Step 4: Training

Step four is the first step where employees actually are involved

at all. Training plays a critical role in preventing workplace injuries. Safety training shows an organization's commitment to workplace safety and encourages an organizational culture of safety.

Think outside the box when it comes to hand safety training. The secret to training success is to make training interesting enough to be memorable. During its hand safety training, U.S. Steel wanted to demonstrate to employees how serious hand injuries can be. To do this, employees were asked to perform simple daily tasks, like opening a jar of peanut butter or putting on a work shirt, without using their fingers or hands.

Always remember that training shouldn't be a one-time affair, but an ongoing conversation between employees and safety leaders. Consider holding quarterly safety workshops or sending around monthly safety newsletters to help keep hand safety top of mind.

Step 5: Enforce Policies and Procedures

Talking about and training for safety does little good if there's no method of enforcing policies and procedures. And although repercussions may be a necessary tactic for those who ignore safety rules, it's rewarding good, safe behavior that professionals find to be the most effective method for encouraging compliance.

We've seen several excellent examples this year of safety leaders recognizing individuals or groups of employees when they achieve safety milestones. Some of these include creating a new trophy or award, providing perks such as rock star parking or extra vacation time, or even hosting a steak dinner for the entire workforce.

Step 6: Provide Adequate PPE

Chances are, you've heard it before: Personal protective equipment (PPE) should be your last line of defense against workplace hand injuries, not your first. But that certainly doesn't mean it's not an essential step. In fact, 70 percent of workplace hand injuries occur because workers aren't wearing gloves at the time of the injury.

Reluctance to wear gloves is the biggest hurdle to overcome in this step toward safety excellence. In addition to training employees on how gloves can save their digits, consider trying new gloves that better meet their needs. Bulkiness, sweating hands and lack of grip are common complaints workers cite when explaining why they choose not to wear cut-resistant gloves, for example.

Recent advancements in technology make gloves today lighter, more comfortable, more breathable and safer than ever before. For example, ultra high molecular weight polyethylene (UHMWPE) is 15 times stronger than steel and offers level 5 cut protection. New materials like UHMWPE feel cool, comfortable and lightweight, while providing resistance to cuts, abrasions, chemicals, water, humidity and UV light.

Step 7: Evaluate and revise

Safety excellence is an ongoing journey. Make it a point to evaluate what's working and what isn't and revise your method accordingly.

Review your safety successes and failures, determine what's driving them, and revise your safety strategy at least once a year.

Like all safety goals, achieving zero hand injuries in the workplace takes a commitment. Following the seven steps outlined here, you'll be well on your way and your workforce will be safer, happier and more productive as a result.

Everything else is wrong.

Slips, Trips, and Falls

Inspection Checklist

Slips, trips and falls are one of the most common safety incidents in all workplaces. Although it may not seem like workers can get seriously injured by, say, falling over an extension cord, the fact is that injuries suffered in slips, trips and falls account for many workplace injuries.

Tailor this checklist to your workplace environment and use it when inspecting your workplace to: 1) Identify hazards that could cause workers to slip, trip or fall; and 2) Document actions needed to address the hazards identified.

Trenching / Excavation Checklist

Excavations can be any size: wide, narrow, deep, or shallow.

Dig a hole in the ground and you have made an excavation.

A trench is an excavation, too, if it isn't more than 15 feet (4.5 meters) wide at the bottom. And, if you install forms or other structures in an excavation that reduce its width to less than 15 feet, measured at the bottom, the excavation is also considered a trench.

Most regulations require that if you work in an excavation that is five feet deep (or deeper), your employer must protect you from trench collapse, cave-ins and other trenching and excavation hazards. If a competent person determines there is a potential for an excavation to cave-in, you must be protected regardless of its depth.

PREVENTION

Trenching and excavation work is inherently dangerous. In fact, it is one of the most hazardous types of work done in the construction industry. Injuries from excavation work tend to be of a very serious nature and often result in fatalities.

Hazards of trenching and excavation work include:

- Cave-in or collapse
- Falling into the excavation or trench.
- Electrical shock from cable or wire contact.
- Exposure to toxic gases.

1. Preliminaries steps

- Locate underground utility
- Notify authority
- De-energize utility
- Ensure employee uses operating procedure
- Utility poles supported or removed if within 3 m of excavation

2. Dig safely:

- Dig from firm ground.
- Move the spoil pile to at least 2 feet (.6m) from the edge, behind a barrier or to another location; in some Canadian provinces, 3 feet (1 m) is the minimum.
- Keep machinery movement to a minimum to reduce vibration which can increase the soil movement in the trench.
- Daily checks by a competent person – no matter how deep the excavation is.
- Because of weather, site activity and other conditions, some excavations require more frequent checks.
- Knowing the soil type(s) of an excavation is important because some are more likely to collapse than others.
- Check for pipes, cables, power lines etc., and isolate them if possible.

3. Going in

- Trenches over 5 feet (1.5m) must have protective systems. These systems can include:
 - Sloping trench walls.
 - Walls shored up with timber and hydraulic jacks.
 - Prefabricated support systems, such as trench boxes and shields.
- Check protective systems regularly through your shift and report concerns.
- Wear your PPE.
- Do not walk or work under overhanging machinery.

4. Just breathe

- Protect yourself and check that gas and oxygen levels are being monitored and that a ventilation system is in place.
- Know the signs and symptoms of oxygen deprivation and any hazardous gases that could be present in the excavation.
- Speak up and ask questions if you have concerns.

5. Stay dry

- Check water pumps are in place and working if necessary.
- Report any water leaking into the trench.
- Report any leaks in any hydraulic protective support systems.
- Water and leaks can weaken the trench walls and make it more likely to collapse.

6. Getting out

- Keep the exit pathway clear.
- Know your exit routes and method:
 - Ladders must be placed within at least 25 feet (7.6 m) of workers and protected by the support system. Steps and ramps may also be used for entry and exit.
- Know where emergency equipment is.
- Wear a safety harness and lifeline as required.
- Take note of alarms to evacuate the trench.

FINAL TAKEAWAY:

Trenches and excavations are dangerous places to work. There are several hazards that can develop quickly including, cave-ins and gas build-up. It is essential that all workers take responsibility for checking the area they are working in, reporting any changes or concerns quickly and appropriately and keeping themselves and others safe.

Slips, Trips, and Falls Inspection Checklist – Spanish

Slips, trips and falls are one of the most common safety incidents in all workplaces. Although it may not seem like workers can get seriously injured by, say, falling over an extension cord, the fact is that injuries suffered in slips, trips and falls account for many workplace injuries.

Tailor this checklist to your workplace environment and use it when inspecting your workplace to: 1) Identify hazards that could cause workers to slip, trip or fall; and 2) Document actions needed to address the hazards identified.

Shiftwork Checklist

What Can You Do to Prevent Fatigue Issues with Shiftwork?

Shiftwork and shift workers are necessary and instrumental in keeping so many vital operations going 24 hours a day, seven days a week. This could mean working nights or alternating days, nights

and afternoons, or other irregular shifts.

Twenty-five percent of workers in North America are shift workers. Shiftwork has been associated with health and safety risks, both in and out of work.

There is strong evidence that shiftwork is associated with an increased risk of occupational injury due to:

- Worker fatigue.
- Less supervision.
- Less co-worker supports.

The risk of an incident was found to be 20 percent greater during the first to second hours of a night shift. A smaller increase in incident likelihood was found to exist between 3 am. and 4 am.

Shiftwork and the disruptions in sleep it causes have also been shown to create changes in appetite, gastrointestinal and digestive issues.

Shift workers face emotional challenges. Shiftwork affects how much time a worker spends with family and friends. It can also make it challenging to participate in clubs, sports and other social activities that are designed for a normal 9-5 schedule. This can lead to relationship problems, depression and feelings of isolation.

What can be done to deal with issues of shiftwork.

Require daytime managers to periodically work at night

Managers who've experienced the challenges that of working at 4 A.M. are more likely to think of practical ways to improve the safety and wellness of their shift workers than managers who've never experienced a night shift.

Evaluate your work environment

Conduct a comprehensive review of your workplace to identify factors that contribute to fatigue – such as dim lighting, poor airflow, and warm temperatures (i.e. over 70 degrees).

Put shiftwork safety on the agenda

Make sure that overnight safety is a mandated discussion point at safety committee meetings and that night workers have a seat at the table.

Teach workers about sleep and napping

Getting enough off-duty sleep is the most effective way to maintain alertness. You can't force workers to sleep, but you can ensure that they are given sufficient shiftwork lifestyle training to educate them on the fundamental importance of sleep, getting quality daytime sleep, and making the most of pre-work naps.

Permit several short breaks

Many shiftwork jobs involve doing the same task for long stretches of time. This monotony can induce microsleeps and other lapses in alertness – especially on the night shift. In addition to a 25- to 35-minute break per shift, workers on the night shift benefit from a 10- to 15-minute break every two or three hours.

Assess your schedule

No shiftwork schedule is perfect, but some are particularly difficult. Schedules that require workers to rotate backward (i.e., to go from nights to evenings to days) or work five or more consecutive 12-hour shifts can exacerbate fatigue levels.

Monitor overtime

People are more likely to make mistakes when they've accumulated a sleep debt from several days of insufficient sleep – which may result from excess overtime. Keep an eye on overall overtime levels (including a breakdown of day vs. night OT hours) and identify individual "overtime hogs" who accrue large amounts of extra work hours.

Standardize shift change procedures

A large proportion of accidents occur during shift changes because of the additional movement around the plant and the increased need

for communication among workers. Make sure you have procedures in place that ensure a smooth transition between shifts.

Watch out for “The Wall”

Due to the dip in circadian rhythms, the hours between 4 and 6 A.M. are generally the hardest – and riskiest – hours of the night shift to work. Exercise has been shown to boost alertness, making an exercise bike or treadmill available for interested workers may minimize the risk of “hitting the wall”.

Don’t forget the drive home

Due to the increased risk of falling asleep at the wheel, the post-shift commute home is often a dangerous part of a shift worker’s day. Provide workers with a quiet room to nap in before heading home.

Provide shiftwork lifestyle training

Whether it’s handing out relevant literature, providing training online, or holding in-person seminars – it’s always a wise idea to educate workers on the health and safety challenges of shiftwork. Providing shiftwork lifestyle training is also a great way to show workers that you recognize the unique challenges they face – which can improve employee morale.

Managing a Shiftwork Lifestyle Training

Working closely with researchers and experienced shift workers, CIRCADIAN has developed the Managing a Shiftwork Lifestyle training program to provide practical solutions for easing the adjustment and day-to-day difficulties associated with shiftwork lifestyles.

Silica Checklist

About 2.3 million people in the U.S. are exposed to silica at work. Crystalline silica is a common mineral found in the earth's crust. Materials like sand, stone, concrete, and mortar contain crystalline silica. It is also used to make products such as glass, pottery, ceramics, bricks, and artificial stone.

Respirable crystalline silica – very small particles at least 100 times smaller than ordinary sand you might find on beaches and playgrounds – is created when cutting, sawing, grinding, drilling, and crushing stone, rock, concrete, brick, block, and mortar. Activities such as abrasive blasting with sand; sawing brick or concrete; sanding or drilling into concrete walls; grinding mortar; manufacturing brick, concrete blocks, stone countertops, or ceramic products; and cutting or crushing stone result in worker exposures to respirable crystalline silica dust. Industrial sand used in certain operations, such as foundry work and hydraulic fracturing (fracking), is also a source of respirable crystalline silica exposure. About 2.3 million people in the U.S. are exposed to silica at work.

Workers who inhale these very small crystalline silica particles are at increased risk of developing serious silica-related diseases, including silicosis which causes great injury and death. **The following are the procedures which are designed to prevent silicosis in the workplace:**

- Hazard Recognition is the first step in protecting workers, one that is often missed, according to silicosis experts. NIOSH recommends assessing the potential for worker exposure to crystalline silica before rock drilling or other possible exposures begin. "Keep your eyes open for any operation that produces fine dust," advises Tee Guidotti, MD, Ph.D., an occupational physician in the School of Medicine at George Washington University.
- Use Engineering Controls to reduce silica exposures, or find safer alternatives.
- Conduct Air Sampling to measure worker exposures.
- Regular Medical Examinations must be provided to any worker

exposed to silica.

- Educate Workers about health effects, work practices and personal protective equipment for silica.
 - Wear Washable Protective Clothes or clothes that can be disposed of at the worksite. Shower and change into clean clothes before leaving the worksite to prevent the contamination of cars, homes and other work areas.
 - Use Respiratory Protection as a last line of defense if silica exposures cannot be kept below NIOSH's recommended exposure limit of 0.05 mg/m³. Consult OSHA's Respiratory Code.
 - Store silica if it is found in large quantities.
 - Don't smoke as exposure to both cigarettes and silica dust result in more severe lung disease than silica alone.
 - Isolate work processes that produce silica dust.
 - Wash hands and face before eating, drinking or smoking following exposure.
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- Top 10 Motivators;
 - Carbon Monoxide Poisoning Risks;
 - Focus On The Cost of Being Overweight;
 - Nine Ways Stress is More Dangerous Than You Think
 - Hearing Protection Checklist
 - Fall Protection Fatality File
 - Safety Talks on Fall Protection and Hearing Protection
 - and more...
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Scaffold Safety Checklist

Scaffolds are integral to the construction industry with approximately 65% of the workforce involved in work from scaffolds. When used properly, scaffolds can save significant time and money. Though they are convenient and necessary, there are four major hazards associated with worker injuries that everyone needs to be aware of for proper scaffold safety.

PREVENTIVE MEASURES

Falls

Falls are attributed to the lack of guardrails, improper installation of guardrails and failure to use personal fall arrest systems when required. The OSHA standard requires fall protection must be used when work heights reach 10' or more. OSHA's standards represent the minimum level of protection; many general contractors require 100% fall protection at 6' or greater when working on scaffolds. These contractors are increasing safety margins by exceeding the minimum requirements of the OSHA standards.

Lack of proper access to the scaffold work platform is an additional reason for falls from scaffolds. Access in the form of a secured ladder, stair tower, ramp, etc. is required whenever there is 24" vertical change to an upper or lower level. The means of access must be determined before erection of the scaffold and employees are never allowed to climb on cross braces for either vertical or horizontal movement.

Scaffold collapse

The proper erection of a scaffold is essential in preventing this particular hazard. Before erecting the scaffold, a number of factors must be accounted for. The amount of weight the scaffold will be required to hold including the weight of the scaffold itself, materials, and workers must be considered. Foundation stability, placement of scaffold planks, distance from the

scaffold to the work surface, and tie-in requirements are other items that must be considered prior to building a scaffold.

Scaffold Competent Person

A knowledgeable individual who can perform preplanning will reduce the chances of injury and save money for any task. However, when building, moving, or dismantling a scaffold, a knowledgeable person, also known as the scaffold competent person, must be present. A competent person must also inspect the scaffold daily to ensure the structure remains in a safe condition. Improper construction can lead to a total collapse of the scaffold or falling components – both of which can be fatal.

Struck by falling materials

Workers on scaffolds are not the only ones exposed to scaffold related hazards. Many individuals have been injured or killed due to being struck by materials or tools that have fallen from scaffold platforms. These people must be protected from falling objects. OSHA requires that this is done one of two ways. The first is to install toe boards or netting on work platforms to prevent these items from falling to the ground or lower level work areas. The other option is to erect barricades that physically prevent individuals from walking under work platforms.

Caution or Danger tape is often used in an attempt to keep people away from overhead hazards but is often disregarded or taken down creating possible struck by hazards. A more robust system such as plastic mesh or wooden barricades is generally more effective and much easier to maintain. When members of the public could potentially move close enough to be struck by falling objects, creating barriers to prevent them from entering the area where objects can fall is a recognized best practice. Regardless of the type of falling object protection used, it is crucial that other individuals on the work site are aware of the overhead work.

Electrocution

Once again, we look to preplanning and the competent person to assure there are no electrical hazards present during scaffold

use. A minimum of 10' must be maintained between the scaffold and electrical hazards. If this distance cannot be maintained, then the hazard must be de-energized or properly insulated by the power company. Coordination between the power company and the company erecting / using the scaffold cannot be over stated.

Training

All employees who work on scaffolds must have documented training. The training topics must include identification and prevention of fall hazards, falling tools and materials hazards, and knowledge of electrical hazards.

Key Takeaways:

- Fall protection is required when work heights reach 10 feet or more.
- Provide proper access to the scaffold and never allow employees to climb on cross braces for horizontal or vertical movement.
- The scaffold competent person must be present when building, moving or dismantling the scaffold and must inspect it daily.
- Erect barricades to prevent individuals from walking under work platforms and place signs to warn those close by of the possible hazards.
- Maintain a minimum of 10 feet between the scaffold and any electrical hazard.
- Ensure all employees working on scaffolding have had proper training.

Seasonal Checklist

In the United States and Canada there is a Tornado Season. It begins on April, peaks in June or July and ends in September. But storms as the public knows can occur and do occur at any time.

Certainly, with the age of climate change upon us, the “Tornado Season” has become more difficult to predict

Tornadoes can move as fast as 70 miles per hour (112 km/h) and produce winds of more than 250 mph (400 km/h). They cause many deaths and injuries every year, as well as a great deal of property damage.

How do people know what to do to reduce the risks and damages that occur to their personal safety and property?

Some tornadoes occur without a tornado warning. And sometimes the warnings are missed. So, it’s important to recognize these signs of a tornado:

- Powerful thunderstorms marked by frequent flashes of lightning;
- Strong rotation in a cloud base;
- Whirling dust or debris on the ground, beneath a cloud base

What to Do in the Face of a Tornado

Listen to your radio for tornado warnings during bad thunderstorms. If a tornado warning is issued, don’t panic. Instead, listen and look. Quickly, but calmly, follow the directions for getting to shelter.

If you have time before the tornado strikes, secure objects such as garbage cans and lawn furniture that can injure people. While most tornado damage is a result of the violent winds, most injuries and deaths actually result from flying debris.

You should do the following:

- Take cover. Go to the basement and crouch down under the stairs. Do not take an elevator. If you can’t get to a basement, go into a closet or bathroom. Or sit underneath a sturdy piece of furniture on the ground floor near the center of the building.
- Stay away from windows and outside doors.
- If possible, try to position yourself so that you are not

below heavy objects (appliances, piano, etc.) on a floor above you. These objects might fall through a weakened floor.

- Use a blanket, sleeping bag or mattress to protect yourself from flying debris. Pull your knees up under you and protect your head with your hands.
 - If you're driving, safely park your car and get to a building. If you can't get to a building, get away from the car, lie flat and face down in low ground and stay far from other cars or trees.
 - If possible, try to avoid being in a building with a wide-span roof, such as an auditorium, church or hall. These roofs are vulnerable to collapse in a tornado.
-

Equipment / Machinery Checklist

Machines need to move to perform their tasks. Whether it's a conveyor belt carrying raw material to a mixing tank, power presses bending sheet metal or a drill press punching holes in a piece of wood, they all operate by movements that cause a serious risk to workers.

The risks occur because workers sometimes put their hands or other body parts in the point of operation, get caught in between two moving parts or fail to use proper safety procedures to clear a jammed machine. Not a day goes by when someone isn't killed by moving machinery or suffers a serious injury like an amputation because they got too close or didn't follow basic safety procedures.

Prevention

Identifying and controlling the hazards of operating and maintaining equipment or machinery is the start of the process to reduce and eliminate serious injury or death in equipment / machinery operations.

The following are five components that provide the safety checklist.

1. Employer Responsibilities:

- Have a copy of the machine or equipment operator's manual available for your workers to read and ensure they have read and understood it.
- Ensure workers who operate mobile equipment are properly trained and competent.
- Ask yourself: Have you provided adequate instruction and information to your workers on how to properly operate the equipment or machine?
- Ensure all machines or equipment are in good working condition and ready for operation.
- Ensure all machine shields and guards are in good condition and safety labels are on the equipment.
- Maintain your equipment as per the manufacturer's instructions (i.e., clutch, brakes, steering).
- Ensure all equipment has a roll-over protective structure (roll bar).
- Confirm equipment brakes are working well in both directions (forward and reverse).
- Confirm all equipment requiring seatbelts have one in good working order.
- Check that the machine has guards where moving parts could injure workers.
- Ensure lock-out procedures are clearly posted and followed.

2. Worker responsibilities

- Wear proper foot protection.
- Wear eye and hearing protection.
- Regularly apply sunscreen in accordance with instructions, or wear sun-protective clothing.
- Ensure all clothing is close-fitting, and secure long hair with a hat or some other means.

3. Pre-operational safety checks

- Locate and ensure you're familiar with all machine or

equipment operations, controls, and lock-out procedures.

- Ensure all equipment or machine shields and guards are fitted, secure, and functional. (If any machine parts are missing or in need of repair, do not operate the equipment.)
- Read the operator's manual and review the safety labels attached to the equipment before installing or using power take-off equipment (PTO). (If labels on equipment are missing, affix new labels before using it.)
- Use only implements that meet the specifications listed in the machine operator's manual.
- Keep records of your pre-operational checks.
- Ensure someone knows where you are, what you will be doing, and when to expect you back.

4. Operational safety checks

- Ensure your roll-over protective structure (roll bar) on the machine is in the up position.
- When operating machines, fasten your seatbelt before you move the equipment.
- Operate the machinery using a lower speed, unless the operator's manual specifically states that it's safe to use the higher speed.
- Keep all bystanders away from powered equipment and machines.
- Assess the machinery by walking around the operating equipment.

5. Ending operations and cleaning up

- Ensure you shut down, disengage any powered equipment, and shut off the machine engine once you're done work. Remember to remove and take the keys with you before leave.
- Keep warning labels clean and free from obstructing material. Replace damaged or missing labels with new labels available from the equipment supplier.
- Wait until all moving components have completely stopped before getting off equipment or connecting, disconnecting, adjusting, cleaning, or servicing any powered equipment.
- Keep the work area safe, clean, and tidy.

Facilities / Maintenance Checklist

A maintenance worker, is responsible for a lot – providing a steady flow of water, heat and cooling as well as upkeep of every part of the workplace. As a result, you need to know about a broader range of safety issues than probably anyone else who works in the facility.

Since you work in all areas of the facility, you encounter a variety of hazards from power equipment to paint vapors. You could be exposed to injury from electrocution, falls, chemical splashes, confined spaces and other dangers.

The [National Safety Council](#) reports that 104 million production days are lost due to work related injuries. The causes of workplace injuries are not as outlandish as you might think. They can include overexertion, contact with objects and equipment and slips, trips, and falls.

The workplace injury stats are equal parts alarming and completely preventable.

The facilities team is the front line for inspecting and fixing building issues and keeping the entire company safe. However, it is also equally as important to put the procedures in place to keep the team itself safe.

PREVENTION

Protection needs to be the top priority all the time, here are some of the most important things to do and keep in mind to prevent injury or worse.

Wear the gear

Face shields, water-repellant boots and coveralls are part of your

protection against a sewer spill. From safety-toed boots to hardhat, you need personal protection equipment (PPE) suitable for each task. Pulling nails requires a different set of gloves than cleaning up a chemical spill. You need to have safety glasses and wear them, as well as wear earplugs or earmuffs when needed.

Hazard communication

If a department or laboratory in the facility uses chemicals, make sure you know where and what the chemicals are. Read the material safety data sheet for each chemical you use, and make sure you know where to find the MSDS fast in an emergency.

Electrical

Obey signs warning of any electrical hazard. Don't work with electricity if not qualified to do so. Don't stand on an aluminum ladder when working near electrical wiring.

Lock out

When working with power equipment and power sources, beware of unexpected release of energy. The lockout/tagout system protects you and others, and safety laws require it.

Beware asbestos

You may encounter asbestos in an older facility while stringing telephone cable or installing

MORE PREVENTION:

- The most important quality when choosing safety equipment is if your employees want to actually use and wear it. If they don't like the way it fits or feels, employees will be less likely to use the equipment and therefore will be more likely to put themselves in danger.
- Safe habits can slip, so training sessions and talks should occur individually when people start, and team-wide throughout the year – such as at the start of each season. If any procedures change, new equipment is introduced, or if an injury occurs, a safety training should be scheduled for the entire team immediately
- employees that have been working at the same facility for

some time may feel more comfortable on the job and might relax their commitment to safety equipment and procedures. Even the best trained and equipped team needs to be monitored to ensure that workers are wearing what they should be wearing.

- Maintaining employee safety might seem like an overwhelming job, but as you can see facilities managers can prevent all types of workplace injuries. All you have to do is ask the right questions, provide the right tools, and always stay vigilant.
-

Fatigue Checklist

Workers suffering from fatigue—physical and mental—are not only less productive and more prone to illness but also more distracted and thus more likely to be involved in a safety incident.

Fatigue can be broadly defined as a feeling of weariness, tiredness or lack of energy. Fatigue is a common complaint but, medically speaking, it's recognized more as a symptom or cause of other conditions than as a condition itself. The best way to understand fatigue is along a continuum. On one end of the spectrum is the fatigue that most of us occasionally experience in the course of our lives when we get physically or mentally overburdened. This kind of fatigue isn't serious and can usually be resolved simply and quickly, such as by getting extra rest. On the other end is a less common but more serious form of fatigue that's symptomatic of a more chronic and disabling condition, such as major depressive disorder or chronic fatigue syndrome. This form of fatigue is an acute and/or ongoing state of tiredness that leads to mental or physical exhaustion and prevents people from functioning as usual.

Fatigue clearly impairs work ability. Studies have shown that workers with fatigue are significantly more likely to miss work

and experience long-term work absences than workers without fatigue

Bottom line: It is estimated that workers with fatigue cost U.S. employers \$136.4 billion a year in health-related lost productivity time \$101 billion more than workers without fatigue.

PREVENTION

Conduct a **fitness for work assessment**.

It includes the following:

Observation

- An employee must observe and communicate with workers to ensure they are fit and able to carry out the requirements of their roles and responsibilities.

Look Out for the Symptoms of Fatigue

Train your managers and supervisors to recognize the signs of fatigued workers, including:

- excessive yawning;
- irritability;
- bloodshot eyes;
- poor performance;
- lack of focus

If you have identified any fatigued workers in your workplace, discuss the issue of fatigue with them as soon as practicable. You may also choose to discuss the issue with other workers who could be at risk of fatigue.

Direct a worker to take leave

Following discussion with a fatigued worker, you may:

- direct a worker to take paid personal or annual leave if they have any paid leave entitlements;
- allow a worker to take unpaid leave if they wish to do so; or
- choose to grant a worker paid leave if they have exhausted

all of their leave entitlements.

It's also recommended that you include a clause in your workers' employment contracts that states that you reserve the right to send a worker home from work if you believe that the worker is not fit to perform their duties.

Driving while fatigued could be dangerous, so if you decide to send a fatigued worker home, arrange a safe method of travel for them, e.g. a taxi or colleague, and check that they have arrived home safely.

Fire Extinguisher Checklist

The threat of fire is present in any workplace and is often underestimated until a significant event occurs. One important measure to protect the workplace from fire damage is proper maintenance of fire extinguishers.

Monthly inspections do the following:

- Ensure the fire extinguishers are present where they're supposed to be.
- Ensure the fire extinguishers are in good condition and ready for use.
- Ensure the fire extinguishers do not need any service, maintenance or annual certification.

Training

- You need training so you will understand when and how to operate a fire extinguisher and hands-on practice to be able to operate a fire extinguisher in an emergency.
- Most portable fire extinguishers operate in a similar manner. Use the word PASS to help you remember the steps in operating an extinguisher.
P – pull the pin

A – aim at the base of the fire

S –squeeze the handle to release the extinguishing material

S –sweep from side to side until the extinguisher is empty

OSHA prohibits the use of fire extinguishers by anyone that has not been properly trained to use them. Training should be done annually and should also include a periodic practical component to give workers an opportunity to practice actual use.

Prevention – Performing an Inspection

- Make sure the extinguisher is in its designated place, is easily visible, and has unobstructed access for immediate use in case of emergency.
- Check that the annual certification tag is present and the fire extinguisher is within its service date interval. Tags indicate the last date of inspection so if a tag is labeled 2018 and the October option is punched or indicated that means it was last inspected in October of 2018 and needs to be re-inspected by a certified testing service by the end of October 2019.
- Check the pressure gauge for damage and that the indicator needle is within the operating (green) range. If the needle is out of the operating range it may indicate a loss of pressure, an equipment failure, or that it has been used.
- Remove the extinguisher from the mounting system to ensure it is easily accessible and that the mounting bracket/system is secure and in good condition.
- Check the extinguisher body and all external metal parts for signs of damage or corrosion. If damage is found remove extinguisher from service and replace. Have extinguisher inspected by certified testing service.
- For dry-powder extinguishers turn the extinguisher upside down and shake to loosen extinguishing media.
- Check to make sure the safety pin is in place and secured with an easily removable retention device, usually a breakaway zip-tie or similar.
- Check the hose and nozzle for damage.
- Check the labels for damage and legibility. The labels

should clearly indicate the extinguisher's size and capability. Ensure the correct fire extinguisher is in the designated location.

- Record the inspection. Most annual certification tags have a grid on the reverse side for this purpose. Record the date of inspection and the initials of the person performing the inspection.

Fire Prevention Checklist

Fire kills more people each year than all-natural disasters combined.

- Every 24 seconds there is a fire that requires the fire departments attention.
- There were 1,319,500 fires reported by fire departments in 2017 resulting in 3,400 deaths.

A comprehensive **Fire Prevention Policy** is mandatory.

A. Emergency Plans

Tells how to evacuate in case of fire and how to account for all those evacuated. Fire drills based on the emergency plan will assist in understanding what to do during an emergency.

B. Fire Safety Equipment

Fire extinguishers, fire alarms, smoke detectors, fire sprinkler systems all play a vital role in fire prevention. It is important therefore to ensure that all equipment is in working order and in compliance with fire safety codes.

- The stipulated number of extinguishers are present (within 75 feet distance from any place in your facility).
- The size, rating, and type of fire extinguishers match the requirement for your kind of business. (At least a 2A-10BC

size rating).

- The extinguishers, fire alarm panels, and fire sprinklers have been serviced and inspected within the previous 12 months.
- All extinguishers are mounted on the wall in keeping with the specified fire safety recommendations (the top of the unit must be no higher than 3.5 feet if extinguishers are greater than 40 pounds and 5 feet if lighter.)
- There are no warning lights on your fire alarm panel.
- There is adequate clearance around fire sprinkler deflectors (at least 18 inches, according to the NFPA).
- There are no signs of leakage, physical damage or corrosion on any of the equipment.
- The valves, hose connections, and water pressure are adequate to the requirements of the fire code.

C. Fire, Exit Routes

Ensure that there are no obstructions to people exiting the building in case of a fire emergency. This includes pathways, exits, aisles, and walkways.

- At least two stipulated fire exits are present.
- All exit doors are unlocked at all times of occupancy.
- Aisles that lead to and away from fire exits are unobstructed.
- The pathway that leads to exit doors is wide enough (at least 36 inches wide.)
- Fire exits are provided with panic hardware.
- All doors to fire exits can be easily opened in case of emergency.
- Easy access to fire protection equipment like fire extinguishers and fire alarm control panel.
- The paths to the exits are well lit and clearly marked.
- The exit signs have backup batteries (to allow for a minimum of 90 minutes power backup) in case the lights go off during a fire emergency.

D. Good Practices for Fire Safety

Strictly adhering to compliance standards in the following areas can go a long way in ensuring fire prevention.

- All combustible materials are stored in fireproof cabinets.
- The number of people in your premises doesn't exceed the maximum occupancy limits at any time.
- Electrical sockets are not overloaded and there are no improper multi-plug adapters used.
- All electrical panels are easily accessible and there are no obstructions to their use.
- All potentially flammable materials are kept away from electrical panels. (Usually, a 3 feet clearance is required.)

No matter how many preventative measures are in place, fire still happen. If a fire does start, here are few steps you can take to stay safe:

- Alert anyone in the area.
- Evacuate the area
- Meet your co-workers in the designated outside area

Food Service Checklist

People in food services jobs such as cooking, bussing tables, and serving food are exposed to dangers that they may take for granted – and some of them are deadly.

The dangers that food service workers may experience are as follows:

- Musculoskeletal disorders (MSDs)
- Cuts and abrasions
- Infections
- Heat
- Chemicals

- Slips, trips, and falls
- Electricity

Attention, constant vigilance and literally take nothing for granted in terms of remaining safe in kitchens of the world. The hi-lites of preventive care are set out as follows:

Musculoskeletal Disorders (MSDs)

Results from sitting or standing too long, or from repeated motion such as reaching or lifting. MSDs may be short-term or long-term and may reoccur.

To protect yourself, don't lift heavy or awkward objects and don't lift above your shoulders. If you work sitting down, get up and move around; stretch and exercise your muscles.

Cuts and abrasions

Workers shouldn't use knives, appliances and other tools without proper training. Use steel-mesh gloves when working with knives. Powered equipment such as food processors should be unplugged when loading, emptying or changing blades.

Infections

The hot, damp atmosphere of a kitchen can breed bacteria. If you get a serious cut or other injury, stay home until it's healed. Cover cuts or injuries with a clean, waterproof dressing.

Heat

Workers in busy kitchens are at risk for burns and scalds. Wear long-sleeved gloves, aprons or other clothing Food Service Safety when working near hot items or hot liquids. Kitchen workers are at risk for heat illness as well, so make sure to take enough breaks and drink cool water often.

Chemicals

Cleaning solutions and mixtures used to degrease, clean and sanitize equipment can cause skin irritation, burns and

respiratory problems. Read the directions on all cleaning products before use and use protective equipment such as gloves, goggles and a respirator if necessary.

Slips, trips and falls

Greasy, wet floors make it easy to slip and hurt yourself. Tripping hazards such as bins of ingredients are also common in food service areas. Make sure to wear proper work shoes with non-skid, insulated soles and reinforced toes. Keep floors and walkways clean and clutter-free. Communicate with co-workers to stay aware of traffic.

Electricity

Cooking, food processing and washing up require lots of power. Make sure to turn off or unplug machinery or appliances before cleaning, and turn off and lock/tag out power at the breaker if possible. Report loose or frayed wires immediately and don't use the equipment until it has been properly repaired.

More Prevention

- Review security procedures with workers. Their lives could depend on knowing what to do.
 - Create an incident report card for close calls and show workers how to use it. Make sure they understand that they won't be punished for reporting safety problems.
 - One of the simplest ways to prevent accidents is to have a pre-shift safety meeting. Talk to workers about taking responsibility for passing on safety information in an organized way at the beginning of the shift.
 - Personal security is an important safety issue for food service workers. Review your company's policies and procedures to protect workers from violence.
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Forklifts Checklist

The forklift indeed is the workhouse or driving force that defines the warehouse. Recent studies show that every year about 80% of forklift related injuries are caused by human error.

“Action” is needed to reduce 80% fork-lift related injuries through human error. Without action, the trickle-down effect of hampered or restricted forklift efficiencies in the warehouse affects us all including the safety of workers who interact with operations of the forklift on a daily basis.

Forklift accidents are a leading source of fatal and serious work injuries. The failure to ensure proper use of forklifts is among the top 10 most frequent causes of OSHA and OHS citations.

Workplan to prevent forklift accidents and fatalities

Ensure Forklifts Meet Design Standards

All new powered industrial trucks you acquire, and use must meet the design and construction requirements outlined in the *American National Standard for Powered Industrial Trucks* and the *Canadian Standard Association Safety Standard for Lift Trucks*.

Ensure Forklifts Are Used Only in Locations Allowed for Designation

Know the different designations for industrial trucks (in general and specifically for those used at your site). These designations are based on how forklift is powered, e.g., diesel, electrical or gas.

Ensure Forklifts Have Right Safety Guards

A load backrest extension must be used whenever necessary to minimize the possibility of the load or part of it from falling rearward. All loads handled by the forklift and the facility it operates within must meet one of the requirements below:

- All loads do not go higher than the top of the forks.

- All loads are one piece, shrink wrapped, banded or crated.
- No loads in the facility are stacked or racked higher than the operator's head that does not meet the load requirements above.
- Forklifts with the load backrest removed must be restricted to:
 - Handling only loads meeting the requirements above; or
 - A specific area of the facility that does not contain any loads presenting a hazard

Ensure Forklift Fuel Is Safely Handled & Stored

Your methods of handling and storing liquid fuels such as gasoline or diesel fuel must meet for your forklift such as gasoline and diesel fuel must meet the National or Canadian Fire Safety Association Flammable and Combustible Liquids Code.

Ensure Safe Methods Used to Change & Store Forklift Batteries

There are detailed rules to ensure safe changing, charging and storage of batteries used to power forklifts, including the requirement that you ban smoking in battery charging areas and keep tools and other metal objects away from the top of uncovered batteries.

Ensure Forklift Operating Areas Are Well Lit

Operating areas must be properly illuminated, and auxiliary directional lighting must be provided on the forklift where general lighting is less than 2 lumens per square foot.

Keep Forklift Noxious Gas & Fume Emissions below Required Levels

Concentration levels of carbon monoxide gas and other toxic substances generated by powered industrial truck operations may not exceed regulated levels.

Ensure Forklift Dockboards Meet Safety Standards

Dockboards (or bridge plates that forklifts ride over to get to higher or lower surfaces) must be strong enough to carry the expected load. Portable dockboards must be anchored or have

devices that prevent slipping and have handholds or other effective means to permit safe handling.

Ensure Only Competent Persons Operate Forklifts

Forklifts are only to be operated by those trained to operate a powered industrial truck, as demonstrated by successfully completing the training and evaluation requirements. Forklift training involves instructional training and a skills test. Training should happen:

- Initially and every 3 years after. In some cases, a re-evaluation of skills is required after 18 months.
- When new equipment is introduced into the workplace;
- When the operating conditions and environment have changed;
- When applicable legislation changes; or
- When skill or knowledge deficiencies are identified.

Ensure Forklifts Are Operated Safely

The ANSI and CSA standards lay out detailed requirements to ensure the safe use of forklifts, including how they're parked, mounted and dismounted.

Ensure Forklifts Are Safely Loaded

Tilting and tipping of loads is a leading cause of forklift accidents.

Ensure Forklifts Are Properly Maintained & Inspected

Forklifts must be inspected at least daily and removed from service if any dangerous defect is found.