



A quarterly publication for injury and illness prevention

Fall 2010

CLOSE CALLS - TAKE A CLOSE LOOK AT NEAR MISSES

A “close call” or accident without injury – often called a Near Miss - is easy to shrug off and forget. But, there is a danger in brushing off accidents that don't hurt, harm or damage. When a “close call” happens, it should immediately send up a red warning flag that something was wrong, unplanned, unexpected, and could happen again. The next time it happens, it could result in serious damage, injury or death.

For every accident there are usually several contributing factors, most of which can be controlled. The best way to prevent the reoccurrence of an accident is by looking at those “close calls.” By investigating the root causes of an accident, steps can be taken to eliminate the hazard and improve the work system.

Sometimes there are multiple causes for an accident involving: equipment (unguarded machinery), environment (poor lighting or noise level), people (procedures not understood or not followed) or management (allowed shortcuts). Don't rush to judge. Examine the facts and find what's missing. Look for immediate and underlying causes. An immediate cause may be an unsafe condition like a mechanical failure or it could be an unsafe action by an employee.

All incidents should be reported to the supervisor so that accident/injury report forms can be completed. Once an investigation is completed, solutions should be sought to prevent the accident from occurring again.

All employees should daily inspect the work area for unsafe conditions or unsafe actions and, if found, report them to the supervisor. Hazard awareness is key to preventing accidents before they happen. Take steps to eliminate hazards as soon as they are discovered. Near misses can happen again and again until they cause injury, so tell your supervisor about every accident, no matter how minor it may seem at the time. You never know when an incident may be repeated and result in an injury or even death.

FOOT SAFETY – IT'S A SHOE-IN FOR SAFETY

To avoid possible injury, it's important to think about safeguarding the foot before undertaking any job.

Employees may be exposed to various hazardous conditions on the job, including slippery surfaces, climbing hazards, handling or working around heavy equipment and machinery and working around electricity. These different working conditions may require different safety footwear to protect the foot from injury.

When choosing safety footwear, you must select the legally approved shoe or boot required for the job activity, equipment, and situation. Some situations may require steel-toed shoes to provide extra protection over the top of the foot

Safety shoes or boots with impact protection should be worn when workers carry or handle materials such as heavy packages, objects, parts or tools and for other activities where objects may fall onto the foot.

All workers need to evaluate the type and style of shoes that are worn. Shoes should have:

- | | |
|-----------------|----------------|
| Good Support | Good Traction |
| Good Condition | Fit the Task |
| Fit the Weather | Fit the Person |

EMERGENCY EYEWASH STATIONS

If you have an accident at work that involves your eyes, an emergency eyewash station can protect you from serious eye damage or the loss of your sight. When you work with corrosive, irritating, toxic, or tissue-damaging materials in the workplace, it is important to have an emergency eyewash station immediately available.

- All eyewash stations should be reachable within 10 seconds from the areas where a splash or eye contamination is likely to occur.
- Pathways to eyewash stations should be free of barriers such as locked or latched doors (swinging doors are allowed), equipment, material storage, or poor housekeeping.
- All eyewashes should have monthly inspections to ensure they are operating properly. Plumbed eyewash stations need clean bowls, dust covers for the nozzles, and good water pressure. All eyewash stations should be protected from freezing and provide room temperature to lukewarm flushing fluids.
- Activating handles should start the flow of fluids immediately. Fluids should flow for at least 15 minutes.
- On a weekly basis, check plumbed eyewash stations to ensure that they are clean and working correctly. Use inspection check sheets for annual, monthly, and weekly inspections and keep copies of these records.

While emergency eyewashes are important in the workplace, using safe work practices can prevent the need to use them. Learn about the chemicals and materials you work with by reading the Material Safety Data Sheets (MSDS) for information on hazards, precautions, and recommended personal protective equipment (PPE). If you are working with chemicals that can splash or materials that may fly into your eyes, wear safety glasses with side-shields or splash goggles.

Know where the emergency eyewash stations are located in your workplace and how to use them. If your eyes are accidentally injured, immediately flush them with water or eyewash solution for at least 15 minutes. When you start flushing your eye, hold your eyelids open and roll your eyeballs around to allow the fluid to flow on all of the surfaces of the eye and under the eyelid. Seek medical attention as soon as possible after flushing your eye.





CLASSROOM SAFETY

Working in a classroom may not seem like a hazardous occupation, but every workplace has hazards and risks.

Teachers, Instructional Aides, and other classroom employees should pay attention to their own safety while educating students.

- Use good ergonomics to reduce the risk of strain or sprain injuries.
- To protect your back, try to find ways reduce lifting like using steps up to the changing table, sink, or fountain.
- Avoid bending or hunching over when wiping or setting low tables or cots; bending your knees and keeping your back straight protects your back during these tasks.
- Working around furniture, numerous classroom materials, and students increases the risk of slips, trips and falls; wear sturdy, comfortable shoes with good traction.
- Walk slowly and avoid rushing while carrying loads or students, which can obstruct your view. Clean up scattered materials on the floor between activities. Ensure that spills are cleaned up immediately and rugs are secured; everyone in the school is responsible for reducing slip, trip and fall hazards.
- Infection control reduces the spread of germs. Wash your hands after handling sick persons, changing diapers, helping students in the bathroom, before preparing food, before eating, and before leaving for the day. Frequently wash down tables, counters, and sinks with a mild bleach solution. Smocks or aprons reduce germ transmittal, especially with infant care. Consider vaccination against chicken pox, hepatitis B, measles, rubella, mumps, polio, tetanus, and diphtheria, all of which can cause serious illness.
- When supervising students in outdoor play or athletic activities, be aware of sun safety. Wear a hat and sunscreen to protect against harmful UV rays; covered or shaded play areas are ideal. Outdoor activities can lead to heat or cold stress, depending on the climate and season. Wear several light layers of clothing and watch for symptoms of environmental stress.

Education is a vital service to care for the future generation; you are a teacher and a role model to the children in your charge. While you focus on your own health and safety on the job, model safe behavior and ensure that the education setting is safe for both students and adults.



ARE YOU PREPARED FOR AN EMERGENCY?

Emergencies in the workplace cannot be eliminated, but if you have an emergency action plan in place and respond quickly and appropriately you can optimize efficiency, relieve anxiety, and in some cases, save lives.

Management commitment and employee involvement are essential to an effective emergency action plan. The action plan should be reviewed whenever the plan or responsibilities change.

How good is your emergency action plan? Find out by asking yourself and your co-workers the following questions:



General

- Is there a means of reporting emergencies and accounting for personnel before and after an incident?
- Who is the person responsible for decision-making during emergency conditions?
- Does everyone in the workplace know the procedures to follow in various emergency scenarios (e.g. fire, explosion, earthquake, chemical spill or workplace violence, etc.)?
- Do you know the escape routes and evacuations procedures including where to reassemble for a headcount or for further instruction?
- Do you know where emergency supplies are located?

Medical

- Do you know how to respond in the event of a medical emergency?
- Are you or other employees at your worksite trained in cardiopulmonary resuscitation (CPR) and first aid?
- Does the worksite have first aid equipment which corresponds to the possible injuries you may encounter? (e.g. emergency wash stations, personal protective equipment, oxygen tanks, ice packs, etc.)
- Are emergency response phone numbers (fire department, ambulance, medical facility, etc.) clearly posted where they can be readily accessed?

Fire

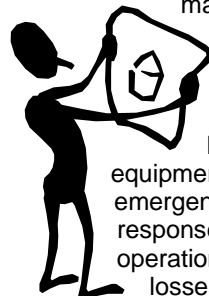
- Does your worksite have fire extinguishers that match the possible fire hazards?
- Have you practiced using the fire extinguishers so that you are aware of their operation and limitations?
- Have the fire extinguishers been recharged within the last year? (They must be tagged to indicate the recharge date.)



Spills

- Do you have absorbent material that matches the quantity and type of chemicals which could spill?
- Do you have relevant personal protective equipment that would be needed to respond to a chemical spill?
- Have you been properly trained in how to safely respond to a chemical spill?

Once you have reviewed your emergency action plan, make sure you are trained and retrained in the possible emergencies you may encounter, the emergency procedures you should follow, any first aid or rescue procedures, and in the location of emergency response equipment and phone numbers. In an emergency, an immediate and educated response can save individual lives, the school operation, and thousands of dollars in potential losses.





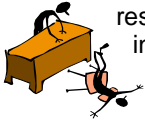
Over the Edge

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PREVENTING INJURIES FROM SLIPS, TRIPS & FALLS

Each year, over one million people suffer a slip, trip or falling injury, and over 17,000 Americans die as a result. The average direct cost for one disabling injury now approaches \$28,000. Conservative estimates of indirect costs are significantly higher at over \$50,000. Add to these the personal and family costs and trauma, and it is evident that slips, trips and falls should be avoided.



OSHA has reported that the back was the most frequently injured part of the body in falls: Nearly half of all slip-fall injuries occur from same-level falls. Most injuries are sprains and strains:

Types of Falls. Falls are of two basic types: elevated falls and same-level falls. Same-level falls are most frequent, but elevated falls are more severe.

- Same-Level Falls: high frequency--low severity
- Elevated Falls: lower frequency--high severity

Same-level falls are generally slips or trips. Injury results when the individual hits a walking or working surface or strikes some other object during the fall. Over 60 percent of elevated falls are from less than 10 feet.

Slips are primarily caused by a slippery surface and compounded by wearing the wrong footwear. In normal walking, two types of slips occur. The first of these occurs as the heel of the forward foot contacts the walking surface. Then, the front foot slips forward, and the person falls backward.

The second type of fall occurs when the rear foot slips backward. The force to move forward is on the sole of the rear foot. As the rear heel is lifted and the force moves forward to the front of the sole, the foot slips back and the person falls.

Coefficient of Friction. The force that allows you to walk without slipping is commonly referred to as "traction." Common experience shows that dry concrete sidewalks have good traction, while icy surfaces or freshly waxed floors can have low traction. Technically, traction is measured as the "coefficient of friction." A higher coefficient of friction means more friction, and therefore more traction. The coefficient of friction depends on two things: the quality of both the walking surface and the soles of your shoes.



To prevent slips and falls, a high coefficient of friction (COF) between the shoe and walking surface is needed. On icy, wet, and oily surfaces, the COF can be as low as 0.10 with shoes that are not slip resistant. A COF of 0.40 to 0.50 or more is needed for excellent traction. To put these figures in perspective, a brushed concrete surface and a rubber heel will often show a COF greater than 1.0. Leather soles on a wet smooth surface, such as ceramic tile or ice, may have a COF as low as 0.10.

Shoes with soft rubber soles and heels with rubber cleats provide a high coefficient of friction (COF).

Providing dry walking and working surfaces and slip-resistant footwear is the answer to slips and their resultant falls and injuries. Obviously, high heels, with minimal heel-to-surface contact, taps on heels, and shoes with leather or other hard, smooth-surfaced soles lead to slips, falls, and injuries. Shoes with rubber-cleated, soft soles and heels provide a high COF and are recommended.

Trip and Fall Trips occur when the front foot strikes an object and is suddenly stopped. The upper body is then thrown forward, and a fall occurs.

As little as a 3/8" rise in a walkway can cause a person to "stub" his toe resulting in a trip and fall. The same thing can happen going up a flight of stairs: only a slight difference in the height of subsequent steps and a person can trip and fall.

Step and Fall. Another type of working and walking surface fall is the "step and fall." This occurs when the front foot lands on a surface lower than expected, such as when unexpectedly stepping off a curb in the dark. In this type of fall, the person normally falls forward. A second type of step and fall occurs when one steps forward or down, and either the inside or outside of the foot lands on an object higher than the other side. The ankle turns, and one tends to fall forward and sideways.

Prevention of Step and Fall Injuries

- Proper housekeeping in work and walking areas can contribute to safety and the prevention of falls. Not only is it important to maintain a safe working environment and walking surface, these areas must also be kept free of obstacles which can cause slips and trips. Working and walking areas should never be obstructed by objects of any kind.
- Adequate lighting to ensure proper vision is also important in the prevention of slips and falls. Moving from light to dark areas, or vice versa, can cause temporary vision problems that might be just enough to cause a person to slip on an oil spill or trip over a misplaced object.
- Carrying an oversized object can also obstruct one's vision and result in a slip or a trip. This is a particularly serious problem on stairs.



Behaviors that Lead to Falls. In addition to wearing the wrong footwear, there are specific behaviors which can lead to slips, trips, and falls.

- Walking too fast or running can cause major problems. In normal walking, the most force is exerted when the heel strikes the ground, but in fast walking or running, one lands harder on the heel of the front foot and pushes harder off the sole of the rear foot; thus, a greater COF is required to prevent slips and falls. Rapid changes in direction create a similar problem.





- Other problems that can lead to slips, trips and falls are: distractions; not watching where one is going; carrying materials which obstruct view; wearing sunglasses in low-light areas; and failure to use handrails.

These and other behaviors, caused by lack of knowledge, impatience, or bad habits, can lead to falls, injuries, or even death.

Elevated Falls. Generally, elevated falls are less frequent but more severe than same-level falls in the workplace.



Falls from Ladders. Ladders may be fixed or portable. They may be straight- extension- or step-ladders and may be manufactured from wood, metal, plastic, or fiberglass. They can be light-, medium-, heavy-, or extra-heavy-duty. Ladders can be two feet high (step-stools), 18 feet for extra-heavy-duty step-ladders, and 40 feet or longer for extension-type ladders.

- A ladder should be long enough so that when it rests against the upper support the user can work with the waist no higher than the top rung of the ladder. This means that the top three rungs of a straight ladder, or the top two steps of a step-ladder, should never be used for the feet.
- The lower ends of the side-rails should be equipped with slip-resistant pads, particularly if the ladder is to be used on hard surfaces. The same is true for the upper ends of the side-rails.
- Ladders should be set at, or as near, a 4:1 angle as possible. That is, for each three or four feet of rise from the base to the upper resting edge of the ladder, the base should be one foot out from a vertical line from the upper resting edge of the ladder to the working surface. As an example, if a ladder is leaning against a ledge that 20 feet off the ground, the base of the ladder should be five feet back from the wall. The base of the ladder must be firmly set so that there is no possibility of slippage or settling into soft ground. The resting edge of the ladder should have both side-rails in contact with the object (building or tree) it is against. Tying the top of the ladder to the supporting structure can also keep the ladder from slipping or sliding.
- Ladders should be inspected before use: check for cracks, loose rungs, splinters, and sharp edges. Never paint ladders, as the paint can hide potentially dangerous conditions.
- The rungs and side-rails of ladders must be kept free of oil, grease, and mud; they should be kept dry.
- Always face the ladder when climbing or descending.
- When working on a ladder, the person's belt buckle should never extend beyond the side-rails. Reaching further can cause the ladder to slide in the opposite direction. Tying the ladder to the structure supporting it can prevent this and is a recommended practice.
- Workers should have both hands free to hold the ladder's side-rails, not the rungs, when climbing or descending. Small tools may be carried in a tool belt; but a better choice is to raise tools/supplies with a rope.

- Make-shift ladders, chairs, boxes, and barrels should never be used as substitutes for a ladder -- the risk is far too great.

Falls from Vehicles and Equipment. Far too many injuries occur in the simple process of getting in and out of vehicles, including school buses. Keep the steps clean and dry.

- Whenever mounting or climbing on a vehicle or school bus, have a good hand-hold before stepping up. Pulling yourself up reduces the force between your shoe and the step and reduces the danger of a slip. As with a ladder, the foot should be placed on the step or rung just in front of your heel, under the arch.
- Always face the vehicle or equipment when mounting and dismounting. When stepping down backward, one steps down on the ball of the foot; when stepping down forward, one lands on the heel, thus increasing the chances of falling, twisting an ankle or knee or suffering some other injury.
- Practice the "Three-Point System." This system can significantly reduce the chances of injuring yourself through a slip or fall while climbing ladders or while entering or exiting a vehicle. The Three-Point System means that three of your four limbs are in contact with the ladder or vehicle at all times, either one hand and two feet, or two hands and one foot -- only one limb is in motion at any one time.
- One more tip that will save you from many sprains or worse: When getting off the bed of a truck or wagon or any similar level: Step down, never "jump" or "fall" down forward.

Learn How to Fall. Naturally, the goal is not to slip, trip and fall; however, the possibility of a fall still exists. There are correct ways to fall, however, the recommended procedures are:

- Tuck your chin in, turn your head, and throw an arm up. It is better-to land on your arm than on your head.
- While falling, twist or roll your body to the side. It's better to land on your buttocks/side than on your back.
- Keep your wrists, elbows and knees bent. Do not try to break the fall with your hands or elbows. When falling, the objective is to have as many square inches of your body contact the surface as possible, thus, spreading out the impact of the fall.

Prevent Injuries – Practice Good Techniques

- Keep walkways and stairs clear of scrap and debris; coil extension cords, lines and hoses when not in use.
- Wipe up spills immediately; wear appropriate waterproof, non-slip footwear.
- Ensure all wet surfaces are covered with non-slip materials; cover floor openings.
- When working in icy conditions, wear lug soles; clear parking lots, stairs and walkways.



Slips, trips and falls whether on or off the job are expensive, disruptive, painful, and may be tragic. There are a number of things that we can reasonably do to reduce the chances of slips, trips and the losses associated with the resulting falls. Get informed and make a difference.





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SPRINGTIME INJURY PREVENTION



After sitting around or just taking it easier over the cold, winter months, the body has grown accustomed to the level of inactivity and isn't necessarily ready for the spring. With warmer weather upon us we are all excited to get out there and enjoy outdoor activities and sports again. Unfortunately, this means that you could be putting yourself at risk of injury. The good news is that a little bit of knowledge can go a long way in the prevention of injuries. Try to recognize your body's limits and have realistic expectations.

VARY YOUR EXERCISE OR ACTIVITY. Performing the same type of activity repeatedly strains the same tissues and will lead to break down and injury. Cross training can help balance muscle development and prevent overuse of muscles. If you lift weights today, go for a run tomorrow. If you lift weights several times per week focus on different body parts each day – legs today, shoulders tomorrow. If you are gardening, mix it up with activities that do not involve lifting or bending.

WARM UP BEFORE ACTIVITY. Evidence suggests that a good active warm up can reduce the risk of injury. Warm up with exercises that raise heart rate, such as fast walking, running drills, lighter weights or skipping. After 5-10 minutes of this, perform active/dynamic stretches such as walking, lunges, twisting, heels to bums, or hip swinging.

STAY LOOSE.

- **A regular stretching program after activity can help to prevent injury.** Be consistent or your body will gradually tighten up making you more susceptible to injury.
- **Choose stretches that target the main muscle groups:** Lower body: calves, hamstrings, quadriceps, IT band and piriformis (buttocks); Upper Body: pects and shoulders; Side stretches to work your trunk muscles.
- **Hold your stretches for 30 seconds each.** To avoid tearing the muscle, do not bounce—hold the static stretch.
- **A stretch should never be painful.** Stretch until you feel a comfortable tension, but not pain.

DON'T OVERDO IT. Many people have lots of enthusiasm when starting a new activity, and go too hard, too soon. Begin with moderate exercise of about 20 minutes, 3 times a week and build gradually. If you're a runner, the rule of thumb is a 10% increase in mileage per week. You can still challenge yourself, but be patient and build gradually to avoid the pain and frustration of an injury. Follow high intensity training days with a lower intensity day or give yourself a day off to help promote recovery. Be sure to get enough rest and sleep.

TREAT YOUR FEET RIGHT

- **Replace your shoes regularly.** A shoe loses arch support and its ability to absorb shock before the sole shows significant wear - so it's important not to use the wear on the sole as the main indicator when to replace your shoes. If you're a runner it's best to have a pair of shoes designated only for running because the wear pattern when running is different than when walking.
- **Wear the right kind of shoe for your foot.** If you over-pronate (flat footed) you need stability; if you have a high arch you need extra cushioning.
- **Wear the right kind of shoe for your activity.** Don't wear a running shoe for tennis.
- **Consider custom made orthotics.** Abnormal foot mechanics can cause misalignment in the lower limb that contributes to wear and tear in the foot, knee, hip and back. Orthotics can correct these issues and prevent the wear and tear that leads to overuse injuries.



LISTEN TO YOUR BODY. Do not exercise through pain - it is an indication that something is wrong. If you do feel pain, apply ice and rest the area for 2 -3 days. If the pain returns or persists, see a health professional as soon as possible. Early treatment can help to prevent ongoing damage that leads to chronic pain and overuse injuries.

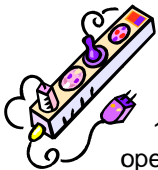
General Workplace Safety Tips

Safety in the workplace should be everyone's top priority. Work related injuries are less likely to occur if all employees know the safety guidelines and understand how to incorporate them in to the workplace daily. There are thousands of workplace safety tips that can be used to make every office or work site an injury free zone.

1. Maintain a clean work area. Not only will you remove many hazards from a work area by keeping it clean, but you will also provide a more productive work environment for your employees.
2. Use guards and engineering solutions wherever possible instead of relying on PPE - personal protective equipment. PPE is hard to police and uncomfortable to wear. Find a way to prevent the exposure in the first place.
3. Participate in making safety part of your workplace culture.
4. Understand all the safe work procedures for performing each task.
5. Focus your energy on all the little things you do each day – even walking safely.
6. Care about your fellow employees – if a machine is becoming unsafe, shut it down before someone gets hurt.



7. Maintain the machinery in good working order. Don't get into dangerous situations by trying to compensate for a machine defect or wear. In the case of wear, it may have occurred so gradually that they think it is normal. A strong preventive maintenance program makes for a strong safety program.
8. Avoid unnecessary hazards. Look for new materials or equipment that can eliminate the hazards.
9. Maintain a clean work area. Potential exposures to hazardous material and conditions can be dramatically reduced simply by keeping the work area clean.
10. Make sure all walkways are free of clutter or tripping hazards such as wires and extension cords.
11. All desks and work areas should be kept clean and free of clutter. This will help prevent accidental spills which could damage equipment or result in a slip and fall accident.
12. Have working fire extinguisher and full first aid kits at all times.
13. Fire exits should be clearly marked and all employees should know where they are located.
14. Empty all wastebaskets each night. This will help in preventing fires and maintaining good indoor environmental quality.
15. There is a zero tolerance policy towards violence. This includes physical as well as mental bullying.
16. Make sure all the cords on any equipment are in good condition no frays, tears or holes that could potentially rip and start a fire. Replace old wires on equipment as soon as the problem is identified.
17. Do not use extension cords whenever possible. Do not overload any electrical sockets with too many plugs.
18. Always wear the proper safety gear when operating power tools.
19. While using loud machinery be sure to wear hearing protective devices, such as ear plugs or ear muffs.
20. Wear protective suits and/or protective masks while working with hazardous materials.
21. If any chemicals should accidentally spill on your body, immediately make your way to the shower station that should be set up near you.
22. Learn how to properly work any equipment before you even turn it on. If you are not sure how it works, find someone who does and ask them to help you.
23. Never touch a live electrical wire. If you see a fallen wire, alert maintenance so it can be repaired.
24. Wear shoes that fit correctly to prevent slipping and falling.
25. Inspect the ladder before use. Make sure to place the ladder on a flat surface to prevent it from moving.



These are just a few workplace safety tips. There are many different ways to protect yourself and others while at work. It all comes down to being careful and watching what you are doing. A person that is taking their time and working correctly is much better than the worker who is rushing and cutting corners. People who rush are at a greater risk for suffering an injury.

Practice Safe Lifting

There are hundreds of back and neck injuries each year due to improper lifting. It is easy to forget about *safe lifting* but your back will thank you when you do remember. Above all, remember that while moving a box without using safety precautions may save you a few minutes -- it may also result in endless pain and lots of lost money on unneeded medical bills. To avoid injuring your lower back, follow these guidelines for lifting:



- Lift with your legs and not your back by squatting and bending your knees. Rise slowly. Try to avoid situations in which you must bend forward at the waist.
- Keep your upper back straight while maintaining a slight arch in your lower back.
- Keep what you are lifting as close to your body as possible.
- Never lift a heavy object above shoulder level.
- Avoid turning or twisting your body while holding a heavy object. Use your feet to change direction, taking small steps.
- Test every load before you lift by pushing the object lightly with your hands or feet to see how easily it moves. If items are, or appear to be, heavy, ask a co-worker to help you, or use a dolly or forklift.
- Make sure the weight of the object is balanced.
- Pace yourself. Take small breaks if you are lifting a number of heavy items.
- Make sure you have enough room to lift safely. Clear a space around the object before picking it up.

By following these suggestions, you will have a greater chance of keeping your back muscles strong as you age or participate in work activities that may cause stress on your back.

PREVENTING BACK INJURIES

There are a number of things you can do as part of preventing back injury.



- **Exercises That Can Prevent Back Injury.** One of the best things you can do as part of back injury prevention is to exercise regularly and keep your back muscles strong. Exercises that increase balance and strength can decrease your risk of falling and injuring your back or breaking bones. Exercises such as tai chi and yoga -- or any weight-bearing exercise that challenges your balance -- are good for increasing balance and strength.
- **Proper Diet as a Part of Back Injury Prevention.** Maintaining a healthy diet is also important in preventing back injuries because maintaining a healthy weight will help you avoid putting unnecessary and injury-causing stress and strain on your back. In order to keep your spine strong, you will need to get enough calcium and vitamin D in your diet, which will help prevent osteoporosis.



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Sitting is Bad for You?

Scientists at the Pennington Biomedical Research Center in Louisiana analyzed the lifestyles of more than 17,000 men and women over about 13 years, and found that people who sit for most of the day are 54 percent more likely to die of heart attacks.

That's right — 54 percent!

Turns out, this wasn't the first study to link sitting and heart disease. Similar research actually dates back to 1953, when British researchers found that (sitting) bus drivers were twice as likely to die of heart attacks as (standing) trolley operators.

Here's the most surprising part: "We see it in people who smoke and people who don't," according to the lead researcher, Peter Katzmarzyk, "We see it in people who are regular exercisers and those who aren't. Sitting is an independent risk factor." In other words, it doesn't matter how much you exercise or how well you eat. If you sit most of the day, your risk of leaving this world clutching your chest—whether you're a man or women—as much as doubles.

The obvious question: Why? Truth is, the researchers aren't sure. But Marc Hamilton, Ph.D., one of Katzmarkzyk's colleagues, suspects it has to do with an enzyme called lipoprotein lipase (LPL), which breaks down fat in the bloodstream and turns it into energy. Hamilton found that standing rats have ten times more of the stuff coursing through their bodies than laying rats. It doesn't matter how fit the rats are; when they leave their feet, their LPL levels plummet. Hamilton believes the same happens in humans. Still sitting? Then you should know that your office chair also:

1. Alters your posture. The fascia, the tissue that connects individual muscles into a full-body network, begins to set when you stay in one position for too long, says *Men's Health* advisor Bill Hartman, P.T., C.S.C.S., a physical therapist in Indianapolis. If you're hunched over a keyboard all day, this eventually becomes your normal posture.

2. Makes you fatter. This happens for two reasons. First, you burn 60 more calories an hour when standing versus sitting. But more importantly, says Hartman, when you spend too much time sitting, your largest muscle group—the glutes (a.k.a. your

butt)—become lazy and quit firing. This is called gluteal amnesia. And, it means you burn fewer calories

3. Causes lower back pain. Weak glutes push your pelvis forward, putting stress on the spine, says Hartman. Here's the other unseemly thing that



happens when your pelvis tilts forward: Your belly protrudes, making you look 5 months pregnant.

So what's a desk-bound worker to do?

First, change how you think about fitness. We have a tendency to segment our lives—work, home, and downtime. Exercise falls into the last category, something we squeeze into our busy schedules when possible. But if you stop thinking about exercise as an activity, and instead think of it as a lifestyle, it's easier to make healthy choices throughout the day. In other words: Stop trying to be fit, and start trying to live fit.

Second, of course, is to stand more throughout the day. These strategies will get you up on your feet more often:

Strategy #1: Take two breaks an hour. Grab a drink from the water fountain. Pop over to the cube next door to say hi. Or simply stand and stretch for a minute. A *European Heart Journal* study of 5,000 men and women found that the quarter who took the most breaks during the day were 1.6 inches thinner than the quarter who took the least.

Strategy #2: Stand during phone calls. It may seem like a small thing but, small choices will help move you in the right direction. It all adds up, it all matters.

Strategy #3: Don't write long emails. If crafting an email will take longer than 15 minutes, go talk to the person instead. Or stand up to call them.



Strategy #4: Stand whenever possible. Researchers found that workers who log more than 6 hours of seat time a day are up to 68 percent more likely to be overweight.

If you decide to do more standing at your desk — there are some adjustments to make to your computer and working surface. Make sure the screen is at arm's length, and the top at eye level. Position the keyboard so your elbows are bent 90 degrees.



Safety in the Sun

Here in California, we enjoy sunshine nearly 365 days a year. Our relatively low humidity makes for a pleasant climate where we love to spend time outdoors. But have less atmospheric protection from the sun's damaging ultraviolet (UV) rays, which can cause sunburn, eye damage, and can lead to skin cancer over time. As you enjoy the great outdoors this summer, take some simple precautions to protect yourself from both the short-term and the long-term risks of UV exposure.



Shield Your Eyes

Invest in a pair of "cool shades" to minimize the risk of damage to your eyes. Studies have indicated that unprotected eyes exposed to the sun's UV rays are more prone to cataracts, macular degeneration, and damage to the eye's surface. Don't just rely on the color and darkness of sunglasses when you make a purchase. For maximum protection, here's what to look for:

- ☛ 99-100% UV absorption (may also say "UV absorption up to 400 nm")
- ☛ Wraparound glasses to block UV rays from all angles
- ☛ Glass or plastic lenses (both can provide adequate protection)
- ☛ Durability
- ☛ Economy (more expensive is not necessarily better)



Save Your Skin

Sunburn is both painful and dangerous. The American Academy of Dermatology warns that repeated sunburns substantially increase the risk of developing melanoma and other skin cancers. Even tanning is risky. A "healthy" tan is actually the skin's response to an injury. Repeated tanning leads to wrinkling and age spots. Both light and dark skin can suffer sunburn, so take basic precautions to protect your skin from the sun's harmful rays.

Top Tips for Sun Protection

- Avoid tanning beds. Artificial radiation can cause just as much damage as natural sunlight.
- Avoid reflective surfaces. Sand, snow and water can all reflect the sun's damaging rays!
- Do not rely on cloud cover for protection; clouds only block about 20% of the sun's UV rays.
- Wear protective, tightly woven clothing. Light colors reflect the sun and the heat. Seek the shade. Take your own shade with you and wear a wide-brimmed hat to protect your scalp.
- Avoid sun exposure between 10:00 a.m. and

4:00 p.m., when the sun's rays are the strongest.

- Do not rely on redness to warn you of overexposure to the sun. The full extent of sunburn may not be visible for up to 24 hours.



And the Number One thing you can do to protect your skin from the sun - **Wear sunscreen!** If you are in the sun for more than 20 minutes a day, you should wear a sunscreen.

Select a sunscreen with an SPF (Sun Protection Factor) of at least 15. Look for a broad-spectrum sunscreen with protection against both UVA and UVB rays.

Apply sunscreen about 30 minutes before going outside. Reapply at least every two hours. Even water resistant sunscreens need to be reapplied after swimming or significant perspiration.

Lips can sunburn, too, so use a lip balm with an SPF of at least 15.

Preventing Heat Illness

In addition to preventing sun damage – you can also take steps to prevent Heat Related Illness: The best defense is prevention – here are some prevention tips:

Recognize the early warning signs of dehydration. These can include dark, yellow urine, loss of energy, dizziness, loss of coordination, cramps, headaches, or unusual fatigue. If left untreated, more extreme symptoms can occur.

Allow for acclimation. Acclimation is the body's adaptation to a hot environment. Slowly increase exposure to heat while working. Most cases of heat illness occur in the first 2 to 3 days of a heat wave.

Drink up. Fluid intake needs to be greater because sweat losses will be higher. **Drink it. Don't pour it.** Pouring fluid over your head may feel great but won't help restore body fluids or lower body temperature.

Don't rely on thirst. Drink continuously, even if you do not feel thirsty. Drink eight glasses of water a day and avoid caffeinated sodas, coffee, and alcohol – these are diuretics and actually rob your body of water.

Schedule work tasks to take advantage of cooler mornings. This is when the weather is coolest. Also, avoid the direct sun to minimize radiant heat from the sun and hot surfaces.

Dress for the weather. Keeping cool in hot weather means wearing light colored, lightweight, and loose fitting clothing.

Break it up. Increase the frequency and duration of rest breaks to help you stay hydrated and cool.