



Slips, Trips And Falls Affect 13 Million People Annually



We usually don't think about slips, trips and falls as being serious safety problems.

Yet they affect over 13 million people in the United States each year, and result in billions of dollars in medical costs.

Obviously, contrary to many people's perceptions, slips, trips and falls can be very serious. They can occur at any height... on the ground or high in the air. Often, there is a long way to fall before you hit a solid surface.

And because the body is usually in an awkward position, it is difficult to protect yourself if you slip or trip. Broken bones and even head injuries are not unusual. In fact, slips, trips and falls are the second leading cause of accidental death.

One of the problems with slips, trips and falls is that they can occur anywhere. It doesn't take a "special situation", like a hazardous chemical or a large piece of equipment, to cause the problem.

Slips, trips and falls can occur at work, at home, at play... or just running an errand.

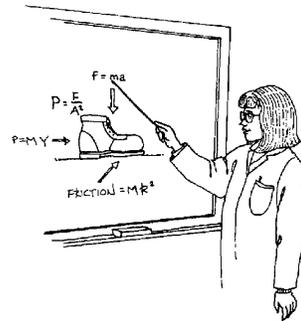
There Are "Scientific" Reasons That These Problems Occur

Slips, trips and falls all involve principles that we learned about in science class. Slips occur because of too little friction between our feet and the surface we are walking on. A good example is trying to walk on ice. Because there is very little friction, it is difficult not to slip and slide.

Trips occur because something interferes with our balance. Usually, it is because we are walking or running along and something hits our ankle... suddenly our leg stops, but the rest of us keeps going.

Falls occur because we move too far off our "center of gravity".

Leaning too far to the side when we are on a ladder, or trying to extend our reach by balancing on one foot and stretching one arm out "full length" are common examples.



All of these problems can be avoided or combated. To make sure that we don't become a victim of slips, trips and falls it will help us to know more about these three "scientific" principles.

Friction, Momentum and Gravity Are All Involved

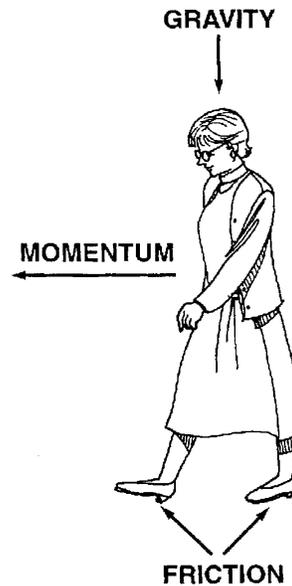
Friction is most important when we are talking about slips. It is the resistance between two surfaces that touch. Without good resistance, it becomes easy to slip. In a sense, when we are walking friction is represented by our shoes trying to "grip" the surface.

Momentum is more important in trips. It involves speed and size.

The principle of momentum says that the bigger the object and the faster it is moving, the greater the chance it can "lose its balance" if it hits something in its path.

Gravity is really important in all three... slips, trips and falls. Gravity is the force that pulls us towards the earth.

When we slip, trip or fall gravity pulls us toward the ground, and makes it hard for us to stay upright.



Balance is Key

Friction, momentum and gravity all affect our balance. And balance is the most important aspect of all three problems... slips, trips and falls.

Our body uses three "systems" to maintain its balance:

- Eyes provide "visual cues" of upcoming hazards.
- Inner ears identify changes in head and body position.
- Various muscles sense our body's position in space.



If any of the systems are disturbed, our balance can be impaired. For instance, dim or bright light can distort the visual cues our eyes give us.

Colds and other illness can affect our inner ears, which can make it difficult for us to identify changes in our head and body position.

Putting too much weight on the muscles in an arm or leg can throw off our center of balance, making it difficult to stay upright.

Know How To Avoid Slips, Trips and Falls

Since slips, trips and falls happen so frequently... and are caused by so many things... it is important that we know how to avoid them.

To start, it pays to remember that just like many other injuries, the vast majority of slips, trips and falls occur when we are hurried or when we get careless.



There are several basic steps to avoiding slips, trips and falls:

- Learn to recognize potential hazards.
- Avoid any immediate problems that the hazards create.
- Keep your body "under control".
- Remove or correct the hazards, or report them to someone who can.

Obviously, a lot of avoiding slips, trips and falls is "mental". But in some cases, personal protective equipment can help as well. It is important to take a closer look at what causes each of these problems.

By knowing more about the specific types of hazards that cause slips, trips and falls you can recognize them more easily... and avoid or correct them.

A Number of Things Can Cause Slips

Slips can be caused by a number of things, including:

- Wet floors.
- Greasy or oily surfaces.
- Weather hazards, such as ice or snow.

All these situations create “low friction potential”. In other words, they make it hard for our shoes to “grip” the surface on which we are walking. There are several ways to deal with this friction problem.

You should:

- Remove or minimize the hazard.
- Avoid the hazard if possible.
- If the hazard is not avoidable, take small steps when crossing the affected area (this keeps your center of gravity steady).
- Walk slowly and deliberately.



If you can't deal with the hazard yourself, make sure to report it to maintenance personnel. Remember to mark the hazard with something noticeable. You don't want a coworker to have a problem you could have prevented.

Safety Shoes Can Help You Avoid Slips

Wearing safety shoes can help you to avoid slipping on hazardous surfaces. However, safety shoes come with many different types of soles, and not all of them are effective on all types of surfaces.

It is important to know which type of safety shoe is most appropriate for your work situation. The type of soles the shoe has is key.



- Soft rubber works well on dry surfaces, but not wet or greasy ones.
- Hard rubber is good for greasy surfaces, but not on dry or wet ones.
- Synthetic soles work well in many conditions, but may not be recommended for oily surfaces.

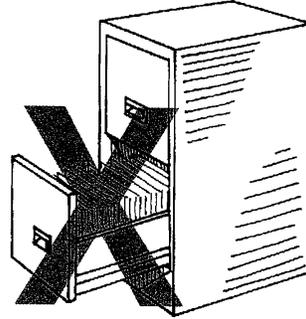
Most shoes come with information about the conditions they are best suited for. Read the accompanying literature to determine if they are right for the job you are doing.

Depending on the types of work you do, you may need to consider using different shoes for different tasks. If you have questions, consult your supervisor about which shoe type is best for your jobs.

Know How To Avoid Trips

Trips usually occur because we are:

- Hurrying too much.
- Ignoring proper safety rules and procedures.
- Wandering off of normal "walking routes", such as sidewalks.
- Cutting off your field of vision, so that you can't see where your feet will be going.



You can combat many of these problems just by paying more attention to what you are doing... slowing down... staying on sidewalks... and watching where you are going.

There are also "physical" things you can do, both at work and at home, to reduce the likelihood of trips:

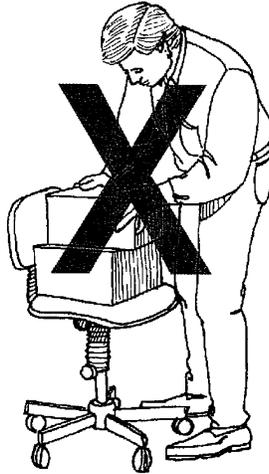
- Make sure areas are well lighted.
- Keep floors clean and free of obstacles.
- Repair loose carpet and stair treads.
- Keep "floor level" drawers closed.
- Clean up puddles, grease and oil spots immediately.

By following these rules you can prevent injuries to yourself and those around you.

Falls Can Result From A Number Of Causes

Falls can result from a number of things, such as trying to extend your reach by stretching over obstacles that are in the way... even balancing on one foot.

Many falls result from slips and trips. Sometimes when you slip you can recover your balance and stay upright. Other times you can hit the ground hard... a fall.



Falls occur even more frequently as a result of a trip, since it is difficult to keep your balance when one of your legs is suddenly trying to stop while the rest of your body tries to continue going forward.

But the two most frequent causes of falls are:

- Using ladders and other climbing equipment incorrectly.
- Constructing makeshift ladders out of boxes and other objects.

Most of us know proper climbing practices (if not, you should learn). And all of us know that make-shift ladders lead to nothing but trouble. But we get impatient and careless... often a fall is the result.

Know How To Use Ladders and Other Equipment Correctly

Knowing how to work safely with ladders is especially important in avoiding falls, since we use them so frequently.

When setting up a ladder:

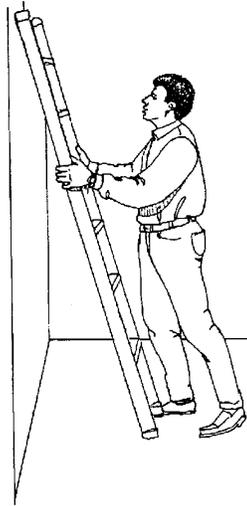
- Check rungs and other components for damage.
- Place the feet on ground that is firm, dry and level.
- Make sure sections of extension ladders overlap by at least three rungs.
- Rest the top "support point" of the ladder firmly against a wall or other surface.

Once you start up a ladder using proper climbing practices is very important:

- Keep your belt buckle between the ladder's rails.
- Have at least three contact points at all times (two hands and a foot or two feet and a hand).

Knowing how to work with other off-the-ground equipment is important too. To reach difficult areas, use a scaffold, personnel lift or other equipment.

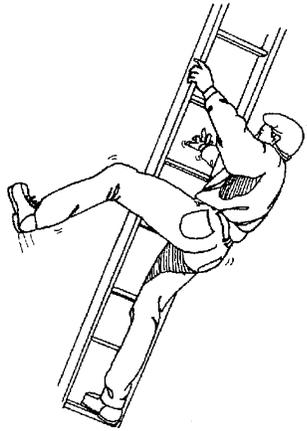
Wear safety lines and hard hats when climbing... and be sure to use hand rails.



Knowing How To Fall Can Minimize Injuries

Taking your time and using safety procedures can usually prevent most falls.

However, sometimes no matter how careful we are, accidents happen. So it is good to know how to minimize the damage and injuries that can occur.



If you do lose your balance, knowing how to fall safely can help prevent a serious injury.

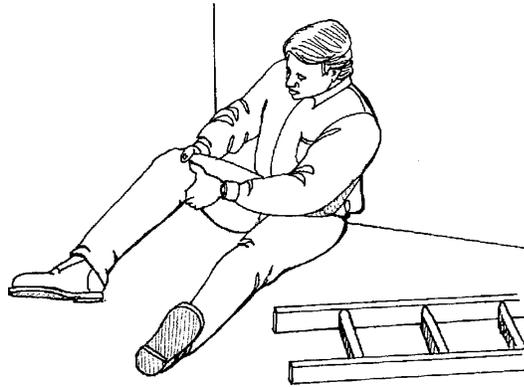
The best technique is to:

- Relax your muscles (rather than tense them up).
- Bend your elbows and knees, so they can act as "shock absorbers".
- Pull your knees and chin toward your chest (the "tuck" position).
- Roll in the direction of the fall.

If you have the time, look for a good place to land. Grass, piles of trash or anything else with some "give" to it is a good target. Almost anything is better than concrete or macadam.

Get Medical Attention If Injuries Occur

The effects of slips, trips and falls are difficult to judge. In addition to obvious injuries, the severe impact that you experience can cause fractured or broken bones... as well as damage to internal organs.



If you take a fall, call out for help. Don't move unless it is absolutely necessary. If you are helping a fall victim, keep them still unless they are in imminent danger.

Once you have provided initial aid to a victim make them as comfortable as possible. Then call for help and arrange for immediate medical attention. Stay with the victim until help arrives.

OYA OFFENDER JOB TRAINING MODULES

Remember . . .

- Slips, trips and falls are a serious safety problem. They affect more than 13 million people a year.
- Slips, trips and falls are all caused by basic problems having to do with friction, momentum and gravity.
- Slips occur when there is "low friction potential", such as on slippery floors and similar surfaces.
- Many trips can be avoided by slowing down and paying attention.
- Safety shoes and other PPE can help prevent many slips, trips and falls.
- Not using ladders correctly is one of the major causes of falls.
- Knowing how to fall correctly can often prevent serious injury.

Slips, trips and falls can happen to anyone. Take your time... think about what you are doing... and follow good safety practices. If you adhere to these rules, you too can avoid potentially dangerous problems!



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OYA OFFENDER JOB TRAINING MODULES

QUIZ

1. How many people experience a serious slip, trip or fall each year?
 - 1.3 Million
 - 13 Million
 - 3 Million
2. Which of the following can affect your balance?
 - Friction
 - Momentum
 - Gravity
3. True or False... As long as your safety shoes have synthetic soles, they will work well on any surface?
 True False
4. If you are using an extension ladder, how many rungs should overlap between the two sections?
 - Two
 - Three
 - Four
5. True or False... If you are falling, you should tense your muscles, so they can act as shock absorbers?
 True False
6. True or False... In aiding a fall victim, you should make sure they are lying flat on the ground?
 True False
7. Which of the following body systems help us keep our balance?
 - Eyes
 - Muscles
 - Inner ears
8. True or False... The inner ear helps us identify changes in head and body position?
 True False