



# KEEP SAFE

A Monthly Publication for Texas Electric Cooperatives

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## Slips, trips and falls

**M**ost common, everyday falls often seem minor and don't result in any serious injury. When you think of workplace falls, dramatic falls from higher elevations come to mind. Falls from higher elevations can result in serious or fatal injuries. Some industries pose a greater risk for falls; the construction industry dominates the statistics for fatal workplace falls. Construction workers are also at a greater risk of non-fatal falls due to the nature of their work. However, during the course of a workday, anyone can slip, trip or fall anywhere under a broad range of conditions, even in the seemingly benign office setting. Using a ladder to change a light bulb can result in a fall with injuries.

Slips, trips and falls cause 10 percent of all accidental deaths and are fourth, following motor vehicles, homicides, and being struck by objects or equipment, as a cause of fatalities.

### What makes falling so hazardous?

When you fall, generally you don't think about what is happening other than the obvious: falling off of something, falling down on the ground, or not quite falling, but losing your balance and slipping or tripping. Generally, a fall is the result of a progression of events.

There are three laws of science involved in a slip, trip or fall: friction, momentum and gravity. Friction is necessary to maintain a grip on the walking/working surface. Remove the friction and you will slip. When you encounter an object in your walking path and are thrown off balance, your momentum (the speed at which you are moving) will cause you to trip. Gravity is the force that pulls you to the ground. Once a slip or trip is in progress, the

end result is usually a fall, which is only stopped by changing surface levels.

### Fall characteristics

Everyone has slipped, tripped, or fallen, most times without great injury. Slips and trips occur with greater frequency, sometimes resulting in sprains or strains. Falls from elevations may occur infrequently (one or two times a year), but serious or fatal injuries typically result.

Falls are classified into four general categories: slips, trips, falls on stairs and falls from elevation. Slips and trips occur on the same level. Stair and elevated falls occur from one level to another.

### Slips and trips

Many workplace hazards lead to nonfatal fall injuries on the same level — a slip or trip. Some hazardous factors that may be common to many workplaces and contribute to a slip or trip are water on office floors, grease on shop floors, ice and snow on parking lots, uneven walking surfaces, cluttered floors, and tripping over one's own feet.

Other factors that must be present to cause a slip are the supporting surface (floor, walkway, working surface), the opposing surface (footwear or footgear), the individual (gait or locomotion characteristics, attentiveness, agility, disability) and the work task (lifting, reaching, moving an object).

The factors that cause a trip are a foot contacting an object or obstruction



(Slips continued on page 2)

*(Slips continued from page 1)*

(uneven rugs, cords, blocked aisles) or too much friction between the foot and the walking surface.

## Falls on stairs

Falls on stairs occur most often when someone is traveling down stairs without holding onto a handrail. The stair surface (design, installation, improper height and width of riser), stair handrails (improper grip configuration), and the individual (physical condition, age, locomotion/gait characteristics) all play a role in falls involving stairs.

## Falls from elevation

Once a slip or trip is in progress, the degree of your loss of balance determines whether the result is a fall or remains a slip or trip. When this loss of balance is total, a fall results. When the fall occurs on an elevated surface, the consequence of the fall increases in severity proportionately to the height of the elevation. Our first instinct is to grab on to something to prevent the fall. More often than not, that something is not available. A common misconception about the height of the working surface leads to potentially dangerous conditions. Guardrails, handrails or hand-lines are often thought of as unnecessary at “minor” elevations. A backward fall from four feet can be fatal because the head will most likely hit the arresting surface (ground) first.

## Tips to prevent fall hazards:

- Install slip-resistant flooring material such as textured, serrated, or punched surfaces and steel grating. These types of floor surfaces are good for wet, oily or dirty operations.
- Apply anti-slip solutions that contain gritty compounds on concrete, wood and metal floors. These products are especially useful for aisles, walkways, ramps and loading docks.
- Provide absorbents to clean up spills where oily materials or corrosive liquids are accidentally spilled.
- Install guardrail systems, handrails, ladder cages or barriers surrounding or nearly surrounding the climbing area of ladders.
- Provide personal fall protection (such as body harnesses) when guardrail systems cannot eliminate the risk of falling.
- Place barriers around unprotected sides and edges. Install safety net systems to catch employees who fall.
- Use hole covers to guard floor openings of at least 2 inches in size.
- Provide slip-resistant mats at entrances, around equipment, and in aisles and bathrooms where contaminants like spills, rainwater and dirt are probable.

*Source: KellerOnline®*

*— Nicole Nichols, Fitness Instructor, SparkPeople*

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# March — put away the poisons

*Doing some spring cleaning? Don't forget that countless dangerous substances are found throughout your home and garage. Take one Saturday in March — Poison Prevention Month — to put hazardous items in their proper place.*


- If you have children in your home (or visiting your home), purchase products with child-resistant packaging.
- Medicines, medical supplies, vitamins, makeup, hair products and cleaning materials can harm children — lock them away, and keep the key where children cannot find them.
- Keep all medicines and household chemicals in their original bottle or box.
- Accidental death from misuse of pain medication is on the rise. Ask your doctor about the medicines you take — prescription and over-the-counter. Follow instructions carefully.
- Throw away any medicines that are past the expiration date listed on the label.
- Do not flush unused medicines in the sink or toilet. Instead, remove the label, wrap the bottle in paper or a plastic bag, and throw it in a covered trash container.
- Crush pills before you throw them out, mixing the pieces into old coffee grounds, sand or kitty litter.
- Keep gasoline and other fuels, antifreeze and other car fluids, pesticides, and lawn and garden products in locked cabinets in your garage or, better yet, in a locked shed.
- Should a family member take poison, call the **Poison Control Hotline at 1-800-222-1222**. This number will connect you to emergency help in your area.
- If a family member is having a seizure, won't wake up, is having trouble breathing or is not breathing, call 911 immediately.

*— Home Safety Council*

*For more home safety tips, visit [MySafeHome.org](http://MySafeHome.org)*



# Texas Electric Cooperatives

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## 2011 TEC LOSS CONTROL SCHOOLS (31 Schools)

Regulator Recloser Capacitors (Merkel)	January 11-14
Metering (Gonzales)	January 18-21
2 Day Transformer (San Augustine)	January 26-27
Transformer (Livingston)	February 8-11
Metering (Lubbock)	February 15-18
Regulator Recloser Capacitors (San Augustine)	February 22-25
Advanced Pole Climbing (Gonzales)	February 22-25
Regulator Recloser Capacitors (Tahoka)	March 1-4
Troubleshooting (Greenville)	March 8-11
Transformer (Gonzales)	March 29-April 1
Metering (Merkel)	April 5-8
Basic Pole Climbing (San Augustine)	April 5-8
Regulator Recloser Capacitors (McGregor)	April 12-15
Hotline 1-4 (Henderson)	April 25-29
Basic Pole Climbing (Gonzales)	April 26-29
Underground (Quitman)	May 2-6
Regulator Recloser Capacitors (Gonzales)	May 10-13
Transformer (Tahoka)	May 17-20
Hotline 1-4 (Merkel)	May 23-27
Metering (McGregor)	June 7-10
Basic Pole Climbing (Tahoka)	June 7-10
Underground (Gonzales)	June 13-17
Metering (Livingston)	June 21-24
Troubleshooting (Livingston)	July 26-29
Regulator Recloser Capacitors (Greenville)	August 16-19
Hotline 1-4 (Gonzales)	August 29-Sept 2
Underground (McGregor)	September 12-16
Hotline 1-4 (Levelland)	September 26-30
Underground (Merkel)	October 3-7
Underground (Levelland)	October 17-21
Hotline 1-4 (Livingston)	October 24-28