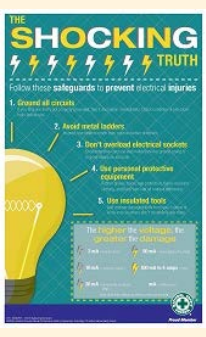
safety spotlight

About the National Safety Council

The National Safety Council saves lives by preventing injuries and deaths at work, in homes and communities, and on the roads through leadership, research, education and advocacy. Visit us at nsc.org for up-to-date industry news, information and tools to take your safety program to the next level.

Featured Safety Poster



The Shocking Truth

Featured Webinar

Visit our Online Learning Library to view our extensive webinar selection. This month's suggested topic: Electrical Safety: Managing Risk

Please note: the PowerPoint presentation must be manually advanced by the viewer.

Member Benefit Guide

New Edition: Member Benefits Guide

NSC Safety Awards

Recognize safety accomplishments with NSC Awards that instill pride, and earn respect from your customers, community and peers. Learn more here.

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July 2016

Welcome to *Safety Spotlight*, an e-newsletter brought to you by the Department of the Interior Office of Occupational Safety and Health, in partnership with the National Safety Council. We hope you find this newsletter of value and we welcome your feedback and ideas on topics you'd like to see featured. Please send your email to membershipinfo@nsc.org and put "Department of the Interior feedback" in the subject line.

5-Minute Safety Talk

Don't Get Shocked

Grounding is extremely important when working with electrical equipment, cables, and conductors.

This 5-Minute Safety Talk offers tips for preventing electric shock and what to do if someone is shocked.

Electrical Hazards and Safety

Exposure to electric current in the workplace is frequently listed among top hazards resulting in injury and death. According to Injury Facts 2016, in 2013, 257 workers died this way. While welders, contractors and linemen are at a high risk for electric shock or electrocution, it can happen in virtually any field.

'Death is Probable' if you Touch a Power Line

According to this OSHA construction manual, workers who touch a power line, whether the line is covered or bare, will probably die. Power lines carry extremely high voltage, up to 750,000 volts.

But even 60 volts can kill a worker. The human body is a very effective conductor of electricity. If you touch an electrically charged part, a current will travel through your body and exit at a contact point, like the ground. Depending on the level of current, the result can range from minor discomfort to bruises, bone fractures, respiratory paralysis, heart attack, severe skin and organ burns, and death. If the skin is wet due to perspiration or standing in a puddle, for example, the results will be more severe.

Electricity and electric shock also can cause:

- Falls from height
- Arc flash or blast
- Fires and explosions

Identify Hazards

Workers should be able to identify different types of electrical hazards, even if they are not employed in the electrical trades. Electrical incidents are caused by work involving:

- **Unsafe conditions**: faulty insulation, improper grounding, loose connections, defective parts, exposed live parts
- **Unsafe environment**: flammable vapors or liquids, wet or damp conditions
- **Unsafe work practices**: failure to de-energize equipment when it is being repaired or inspected (lockout-tagout)
- A combination of the above

According to OSHA, the most common causes of electrical injuries and deaths are:

- Contact with power lines
- Lack of ground-fault protection
- Path to ground missing or discontinuous
- Equipment not used in the manner prescribed
- Improper use of extension and flexible cords

A Word About Lightning

Many people don't think of it as an occupational hazard, but more than 300 people a year are struck by lightning, according to OSHA. Working outdoors, in open spaces or near tall objects like cranes and communications towers can make workers especially vulnerable to lightning.

Go indoors if you hear thunder, even if it's off in the distance; thunder is caused by lightning, and the National Oceanic and Atmospheric Administration says nowhere outdoors is safe when lightning is present.

- Stay indoors at least 30 minutes after thunder stops
- Don't use a corded phone during a thunderstorm
- Include protocol for lightning safety in your emergency action plan

Respect Electricity

Electricity can be deadly. According to the Centers for Disease Control and Prevention, all ages are at risk, and young workers are particularly vulnerable.

- Conduct a site survey to identify overhead power lines
- Use ground-fault circuit interrupters
- Use cranes and ladders intended to prevent or minimize the risk of electrocution
- Follow lockout-tagout procedures
- Select personal protective equipment for tasks involving electricity
- Make sure all breakers and switches are marked
- Don't use tools in wet environments
- If a person is overcome by electric shock, do not touch him or her - you could become part of the circuit; contact medical personnel immediately
- Establish and implement an Assured Equipment Grounding Conductor Program
- Print out this OSHA Quick Card on electrical safety
- Even an office environment can contain hazards; follow these guidelines to stay safer

Other Resources

- NSC Electrical Safety Compliance Training
- OSHA: Controlling Electrical Hazards
- NOAA Lightning Safety on the Job
- Occupational Injuries from Electrical Shock and Arc Flash Events
- National Institute for Occupational Safety and Health Publications on Electrical Safety

Bring Safety Home

Electricity is so familiar and so much a part of our day-to-day lives we often take it for granted. But anyone can be exposed to electrical hazards in the home. Many of the suggestions for electrical safety at work also apply to the home, including avoiding using power tools in wet areas and keeping a safe distance from power lines.

Here is some more advice on respecting electricity in the home to prevent shocks, fires and even death:

- Unless you are professionally trained to do electrical work, leave it to the experts
- Install ground-fault circuit interrupter outlets throughout the home
- Never go near downed power lines
- Don't overload extension cords
- Never plug a major appliance into an extension cord
- Only plug one heat-producing appliance into an outlet at a time
- Use correct bulb wattage according to lighting fixture labels
- If you have small children, be sure to use safety caps on your outlets
- Use this Home Electrical Safety Checklist from the U.S. Consumer Product Safety Commission to check your home, room by room