

# TURNING OFF THE POWER AT THE CIRCUIT BREAKER MEANS IT'S SAFE TO WORK, RIGHT?

**WRONG.**

Every year, people are injured or killed by circuits they thought were safely turned off. Simply shutting off the power is not enough. Hazardous conditions can still exist.

Working with electricity requires thorough planning and extreme care. Whether you are a do-it-yourselfer tackling a weekend project or an experienced contractor, learning and practicing safe work habits can significantly reduce your risk.

That's why you must always **TEST BEFORE YOU TOUCH**. You may not get a second chance to learn this important lesson.



## ABOUT ESFI

Founded in 1994 through a joint effort between Underwriters Laboratories Inc. (UL), the U.S. Consumer Product Safety Commission (CPSC) and the National Electrical Manufacturers Association (NEMA), the Electrical Safety Foundation International (ESFI) is North America's only non-profit organization dedicated exclusively to promoting electrical safety in the home, school and workplace. ESFI is a 501(c)(3) organization funded by electrical manufacturers and distributors, independent testing laboratories, utilities, safety and consumer groups and trade and labor associations. ESFI sponsors National Electrical Safety Month each May and engages in public education campaigns and proactive media relations to help reduce property damage, personal injury and death due to electrical accidents. The Foundation does not engage in code or standard writing or lobbying and does not solicit individuals.

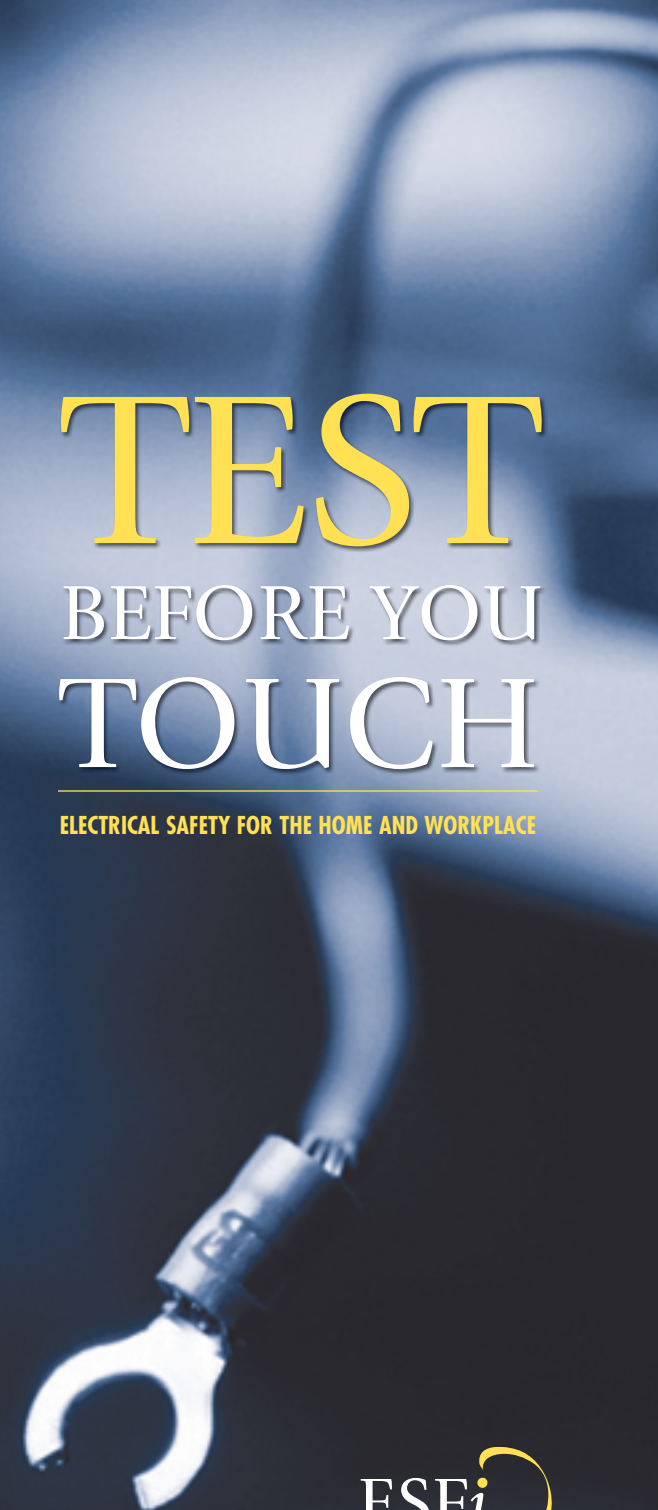


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# TEST BEFORE YOU TOUCH

**ELECTRICAL SAFETY FOR THE HOME AND WORKPLACE**





## UNDERSTANDING THE RISKS

Electrical hazards, while a fraction of total workplace injuries, are more likely to result in death than injuries from other causes.

- > Electrical accidents on the job cause an average of 13 days away from work and nearly one fatality every day.
- > Approximately 62 percent of an estimated 32,807 nonfatal electrical injuries occurring between 1992 and 1998 were classified as electric shock and 38 percent as electric burns.
- > The nonfatal workplace incidents that cause the highest number of days away from work include contact with an electrical current or a machine, tool, appliance or light fixture (38 percent), and contact with wiring, transformers or other electrical components (33 percent).
- > Nonfatal electrical injury occurs most often to those who work with machines or tools and around electrical wiring other than power lines.

Source: "Occupational Electrical Injuries in the US, 1992–1998" published in the *Journal of Safety Research* (2003, pp. 241–248).

# SAFETY CAN SAVE YOUR LIFE

Many injuries, deaths and property damage caused by electrical hazards can be avoided. If you are not experienced in working directly with electricity and trained to recognize and avoid electrical hazards, consider hiring a certified electrician for your electrical work. For those experienced in working with electricity, these points can help remind you of basic electrical safety practices. The first step in avoiding these hazards begins with safety. Before undertaking any type of electrical work, plan your job and include all necessary steps to ensure your safety and the safety of those around you. And always **TEST BEFORE YOU TOUCH**.

### AROUND THE HOUSE

- > Understand your electrical system. Make a map showing which fuse or circuit breaker controls each switch, light or outlet.
- > Wear the appropriate personal protective equipment (PPE).
- > Ensure the right circuits are turned off before starting to work.
- > Make sure the circuits cannot be accidentally turned back on while you are working.
- > Use a circuit tester, and make sure it is working properly by testing it before and after you test the circuit where you will be working.



For details on electrical safety, please refer to the National Fire Protection Association Standards (NFPA) 70E and the U.S. Department of Labor's Occupational Safety and Health Act (OSHA) requirements. Visit NFPA at [www.nfpa.org](http://www.nfpa.org) and OSHA at [www.osha.gov](http://www.osha.gov).

### ON THE JOB

Electrical hazards on the job can be avoided by following approved NFPA 70E and OSHA guidelines. Attention to safety is the important first step to an effective safety program. Skilled employees, trained in electrical safety procedures, should make sure they understand and follow safety precautions. Those not trained to recognize and avoid electrical hazards, or not under the supervision of those qualified in electrical safety procedures, should avoid contact with electrical equipment and systems.

- > Understand the construction and operation of the electrical equipment and the hazards involved.
- > Identify all possible energy sources that could pose on-the-job hazards.
- > Know safety requirements and follow them.
- > Calculate the energy potential.
- > Select the appropriate personal protective equipment (PPE). Remember, PPE must be worn until the electrical system is in a safe condition.
- > Complete a detailed job plan and communicate it to all coworkers.
- > Before working on or around electrical systems or equipment, identify the load circuits and disconnect. Remember, in some cases, turning power off may cause other hazards. Such hazards and additional guidance should be addressed in your work plan.
- > Use lock-out/tag-out procedures.
- > Verify that the equipment or system has been de-energized by testing.
- > Make sure your test equipment is working, both before and after you use it.
- > If at any time the job becomes more hazardous than anticipated, stop and revise the plans.

Above all, never assume that the equipment or system is de-energized. Remember to always **TEST BEFORE YOU TOUCH**.