



Safety Tip Sheets



Kitchen Safety

Cooking Up Safety in the Kitchen

The kitchen is the heart of the home. It's where families gather to cook favorite recipes, share warm meals, and reconnect with each other, but it's also the location where two-thirds of all home fires start. Identify and correct potential hazards in your kitchen before someone gets hurt.

Kitchen Safety Menu:

- Keep your stove and oven clean. Clean the exhaust hood and duct over the stove regularly.
- Keep the cooking area around the stove/oven clear of combustibles, such as towels, napkins, and pot holders.
- Plug counter top appliances into GFCI-protected outlets.
- Locate all appliances away from the sink.
- Keep appliance cords away from hot surfaces like the range or toaster.
- Unplug the toaster and other counter top appliances when not in use.
- Make sure there is room behind the refrigerator for air to circulate.
- Vacuum refrigerator coils every three months to eliminate dirt buildup that can reduce efficiency and create a fire hazard.
- Even a slight shock from a major appliance can indicate an extremely hazardous wiring condition. Turn the power to the appliance off at the circuit breaker. Do not touch the appliance until it has been checked by a licensed, qualified electrician.
- Do not use electrical appliances that have been wet. Water can damage the motors in electrical appliances like freezers and refrigerators.

Safety Spotlight: GFCIs

A ground fault circuit interrupter (GFCI) is a device designed to protect people from electrical shock and electrocution. The GFCI constantly monitors electricity flowing in a circuit, quickly switching off power to that circuit if any loss of current occurs.

GFCI receptacles are used in place of standard outlets in areas of the home where water may come into contact with electrical products, such as the bathroom, garage, kitchen, and basement.

GFCIs should be tested every month to ensure they are in working order.

Energy Saving Tip:

A toaster oven uses 1/3 as much energy as a full-sized oven. Use toaster ovens for cooking small meals.

Visit ESFI's *Virtual Home* at <http://virtualhome.esfi.org/> to learn more about home electrical safety.

Family Room Safety

Plug Into Safety in Your Family Room

The family room is an area of the home where many people go to unwind and relax, but there are certainly a lot of appliances powered there. According to the Consumer Electronics Association, the average home today has three televisions, two DVD players, at least one digital camera, one desktop computer and two cell phones. Many homes and their electrical systems were built before most modern-day home electronics and appliances were even invented. Learn to recognize and eliminate potential electrical hazards that can exist in common areas of your home.

Safety Tips:

- Make sure entertainment centers and computer equipment have plenty of space around them for ventilation.
- Extension cords are for temporary use only, and are not intended to be used as a permanent power supply.
- Do not place extension cords in high traffic areas, under carpets, or across walkways, where they pose a potential tripping hazard.
- Examine extension cords before each use. Replace cracked or damaged cords immediately.
- Use a surge protector to protect your computer and other electronic equipment from damage caused by voltage changes.
- Consider purchasing surge protectors with cable and phone jacks to provide similar protection to your phone, fax, computer modem, and television.
- Heavy reliance on power strips is an indication that you have too few outlets to address your needs. Have additional outlets installed by a licensed, qualified electrician as needed.
- Keep liquids, including drinks, away from electrical items such as televisions and computers.

Safety Spotlight: TRRs

Every year in the United States, more than 2,400 children under 10 years old are treated in hospital emergency rooms for electric shock or burn injuries caused by tampering with a wall outlet.

Tamper resistant receptacle (TRR) technology provides a simple, permanent solution to help prevent these types of childhood shock and burn injuries. TRRs look like standard wall outlets, but they are actually designed to close off the receptacle openings unless equal pressure is simultaneously applied to both sides.

Energy Saving Tip:

Use a power strip as a central turn off point for electronics, video games, and computers when not in use.

Visit ESFi's *Virtual Home* at <http://virtualhome.esfi.org/> to learn more about home electrical safety.

Bedroom Safety

Wake Up to Safety in the Bedroom

The average adult sleeps almost 8 hours per night, spending at least one-third of every day in their bedroom. Unfortunately, we are often at our most vulnerable while asleep. Thirty-six percent of people killed in home fires never wake up. Take steps to make sure your bedroom is safe—you'll sleep better!

Safety Tips:

- Before installing a portable air conditioner, make sure that the electrical circuit and the outlet are able to handle the load.
- Large window A/C units should have their own separate electrical circuit so the system is not overloaded.
- Air conditioners need to be cleaned at the beginning of every season to keep them running safely and efficiently.
- Check ceiling fans regularly for a wobble, which will wear out the motor over time. To fix the wobble, turn off power to the ceiling fan, and tighten the screws.
- Replace any lamp whose cord is damaged or cracked.
- Use correct bulb wattage in fixtures. Light bulbs with wattages that are too high for the light fixture can overheat the fixture and start a fire.
- Always turn lamps off when you leave the room for an extended period of time.
- If you have a rechargeable battery, be sure to use the proper battery charger intended for the size and type of battery you have.
- Unplug battery chargers or power adapters when equipment is fully charged or is disconnected from the charger.

Safety Spotlight: Smoke Alarms

Smoke alarms save lives by providing early warning of fire. Smoke alarms should be installed in every bedroom, outside each sleeping area, and on every level of the home.

For the best protection, smoke alarms should be interconnected, so that they all sound if one sounds. Battery-operated alarms can now be connected by wireless technology.

Test smoke alarms monthly by pushing the TEST button. Change smoke alarm batteries at least once a year. If an alarm chirps or beeps to indicate low batteries, change them right away.

Energy Saving Tip:

If you have a portable air conditioner, turn it off when a room will be vacant for a few hours. You'll use less energy cooling the room down later than if you had left the unit running.

Visit ESFi's *Virtual Home* at <http://virtualhome.esfi.org/> to learn more about home electrical safety.

Basement Safety

Build a Foundation of Safety in the Basement

The basement is one of the most commonly ignored areas of the home. Yet, it is also where some of your most essential—and expensive—home electrical equipment is kept. Heating equipment and electrical distribution systems are two of the leading causes of home fires. You can help keep your home safe by learning the basics of how these systems work and making sure they are properly maintained.

Safety Building Blocks:

- Check the label inside the door or cover of your electrical service panel to see when your electrical system was last inspected.
- Be sure circuit breakers and fuses are correctly labeled with their amperage and what rooms, circuits or outlets they service. Use correct size and current rating for breakers/fuses.
- Increase your fire protection by having a qualified, licensed electrician replace your standard circuit breakers with AFCI breakers.
- Have your furnace cleaned and inspected annually by a licensed, qualified professional.
- Make sure all fuel-burning equipment, such as furnaces, stoves, and fireplaces, is vented to the outside to avoid carbon monoxide poisoning.
- Install carbon monoxide alarms on every level of your home and outside each sleeping area.
- Lower the setting on water heater thermostats to 120° Fahrenheit or below.
- Turn off electric water heaters/turn down gas water heaters before you go away on vacation.
- Clean the dryer lint filter after each load, and keep the area around the dryer free of clutter.
- Check periodically for excessive vibration or movement when the washing machine or dryer is operating, which can put stress on electrical connections.

Safety Spotlight: AFCIs

Arcing faults are one of the major causes of the more than 51,000 fires that result from electrical problems each year. An arc fault is a dangerous electrical problem caused by damaged, overheated, or stressed electrical wiring/devices.

Arc fault circuit interrupters, or AFCIs, are devices that replace standard circuit breakers in your electrical service panel. AFCIs provide a higher level of electrical fire protection, detecting hazardous arcing conditions and shutting down the electricity before a fire can start. Test AFCIs monthly to make sure they are working properly.

Energy Saving Tip:

Heating can account for 40% of your annual household energy costs! Keeping your furnace well-maintained can increase its efficiency by more than 10%.

Visit ESFi's *Virtual Home* at <http://virtualhome.esfi.org/> to learn more about home electrical safety.



Home Safety Calendar

Home Safety Calendar



Use this handy calendar to help keep your home safe all year long. Visit <http://virtualhome.esfi.org> to learn more about home electrical safety.

JANUARY

- ❑ Test GFCIs & AFCIs
- ❑ Test smoke & CO alarms
- ❑ Inspect electrical/appliance cords for damage
- ❑ Check and replace furnace filters

FEBRUARY

- ❑ Test GFCIs & AFCIs
- ❑ Test smoke & CO alarms
- ❑ Inspect electrical/appliance cords for damage
- ❑ Vacuum refrigerator coils

MARCH

- ❑ Test GFCIs & AFCIs
- ❑ Test smoke & CO alarms
- ❑ Inspect electrical/appliance cords for damage
- ❑ Replace smoke/CO alarm batteries if not done in the past 12 months

APRIL

- ❑ Test GFCIs & AFCIs
- ❑ Test smoke & CO alarms
- ❑ Inspect electrical/appliance cords for damage
- ❑ Check and replace furnace filters

MAY

- ❑ Test GFCIs & AFCIs
- ❑ Test smoke & CO alarms
- ❑ Inspect electrical/appliance cords for damage
- ❑ Vacuum refrigerator coils
- ❑ Clean air conditioners or schedule annual inspection

JUNE

- ❑ Test GFCIs & AFCIs
- ❑ Test smoke & CO alarms
- ❑ Inspect electrical/appliance cords for damage
- ❑ Dust light fixtures and lamps
- ❑ Schedule annual inspection of gas-powered dryer

JULY

- ❑ Test GFCIs & AFCIs
- ❑ Test smoke & CO alarms
- ❑ Inspect electrical/appliance cords for damage
- ❑ Check and replace air conditioning filters

AUGUST

- ❑ Test GFCIs & AFCIs
- ❑ Test smoke & CO alarms
- ❑ Inspect electrical/appliance cords for damage
- ❑ Vacuum refrigerator coils

SEPTEMBER

- ❑ Test GFCIs & AFCIs
- ❑ Test smoke & CO alarms
- ❑ Inspect electrical/appliance cords for damage
- ❑ Schedule annual furnace cleaning and inspection

OCTOBER

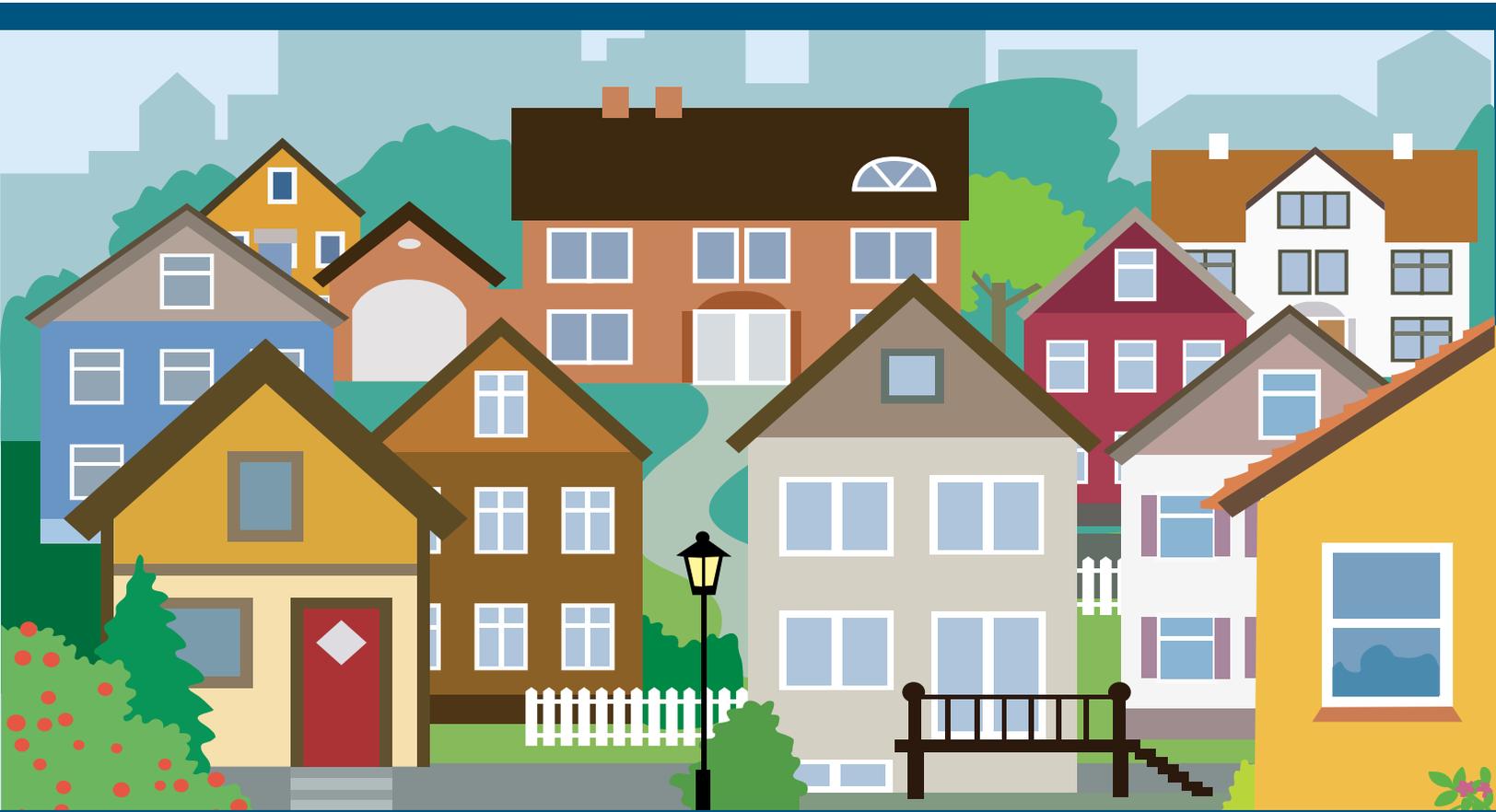
- ❑ Test GFCIs & AFCIs
- ❑ Test smoke & CO alarms
- ❑ Inspect electrical/appliance cords for damage
- ❑ Check and replace furnace filters

NOVEMBER

- ❑ Test GFCIs & AFCIs
- ❑ Test smoke & CO alarms
- ❑ Inspect electrical/appliance cords for damage
- ❑ Vacuum refrigerator coils

DECEMBER

- ❑ Test GFCIs & AFCIs
- ❑ Test smoke & CO alarms
- ❑ Inspect electrical/appliance cords for damage
- ❑ Dust light fixtures and lamps



Quick Reference Guide: Home Safety Technology



Quick Reference Guide: Home Safety Technology



Arc Fault Circuit Interrupters (AFCIs)

An arc fault is a dangerous electrical problem caused by damaged, overheated, or stressed electrical wiring or devices. Arcing faults are one of the major causes of the more than 51,000 electrical fires that occur each year in the United States.

Arc fault circuit interrupters, or AFCIs, are devices that replace standard circuit breakers in your home's electrical service panel. AFCIs provide a higher level of electrical fire protection, detecting hazardous arcing conditions and shutting down the electricity before a fire can start.

While AFCIs were originally only required to protect bedroom circuits, the *2011 National Electrical Code (NEC)* requires that this technology be installed in additional areas of the home, including dining rooms and living rooms. Although the new safety requirements apply to newly constructed homes, older homes with aging wiring systems can also benefit from the added protection provided by AFCIs.

AFCIs should only be installed or replaced by a licensed, qualified electrician. Test AFCIs monthly to make sure they are in proper working order.



Ground Fault Circuit Interrupters (GFCIs)

A ground fault circuit interrupter (GFCI) is a device designed to protect people from electric shock and electrocution. A GFCI constantly monitors electricity flowing in a circuit. If it senses any loss of current, it quickly switches off power to that circuit. Installing GFCIs could prevent over two-thirds of electrocutions that occur each year in and around the home.

GFCIs can be installed at the main service panel, in place of standard electrical outlets, or can be used as a portable device. Typically, GFCIs are installed in areas where water and electricity are in close proximity, such as the bathroom, garage, kitchen, and basement.

Portable GFCIs require no tools to install and provide flexibility in using receptacles that are not GFCI-protected. They are commonly used outdoors.

GFCIs can be damaged or wear out as a result of voltage surges from lightning, utility switching or normal usage. Just because an outlet works does not mean that the GFCI is functioning properly. GFCIs should be tested monthly to ensure they are in working condition.



Tamper Resistant Receptacles (TRRs)

Every year in the United States, more than 2,400 children under ten years old are treated in hospital emergency rooms for electric shock or burns caused by tampering with a wall outlet around the home.

Tamper resistant receptacle (TRR) technology provides a simple, permanent solution to help prevent these childhood injuries. TRRs replace standard wall outlets and may appear identical on the outside, but they are designed with spring-loaded receptacle cover plates that close off the receptacle openings or slots. When equal pressure is simultaneously applied to both sides the receptacle cover plates open, allowing a standard plug to make contact with the receptacle contact points. Without this simultaneous pressure, the cover plates remain closed to prevent children from inserting household items.

Tamper resistant receptacles have proven to be so effective that the *2011 National Electrical Code (NEC)* requires installation of TRRs in all new homes. Standard outlets in existing homes can easily be replaced with TRRs. TRRs should be installed by a licensed, qualified electrician using the same installation guidelines that apply to standard receptacles.



Carbon Monoxide (CO) Alarms

Carbon monoxide (CO) is a poisonous gas that can be created by fuel-burning heating and cooking appliances, portable generators, water heaters, clothes dryers, or cars left running in enclosed areas. This odorless, colorless, tasteless gas is often called the “silent killer” because it is virtually undetectable without the use of technology, like a CO alarm.

CO alarms should be installed on every level of your home and outside each sleeping area. Test CO alarms at least once a month by pressing the TEST button. CO alarm batteries should be replaced in accordance with the manufacturer’s instructions, at least once a year. If an alarm “chirps” or “beeps” to indicate low batteries, they should be replaced immediately.



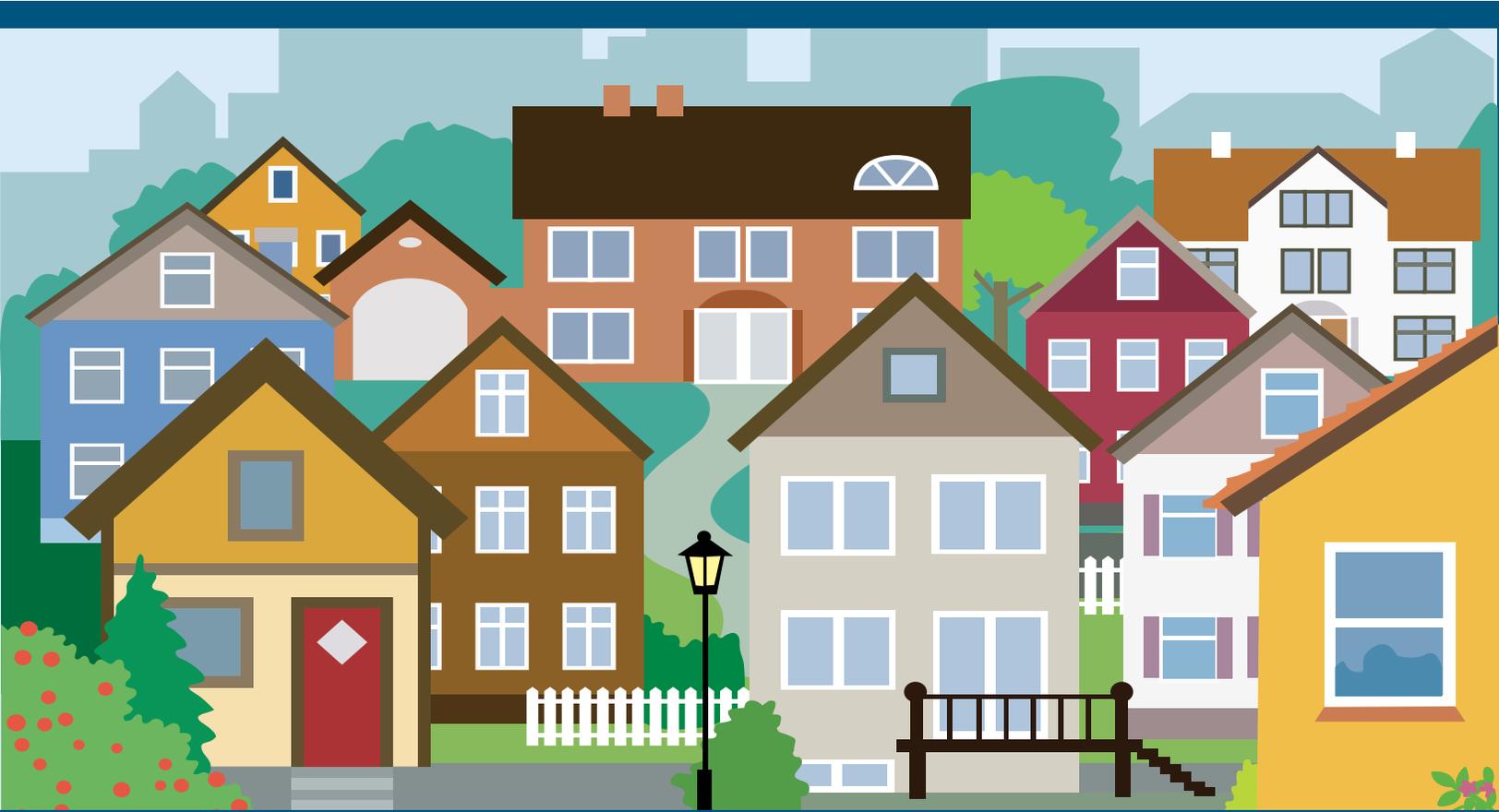
Smoke Alarms

Smoke alarms save lives by providing early warning of fire. Roughly two-thirds of home fire deaths occur in homes without working smoke alarms.

Smoke alarms should be installed in every bedroom, outside each sleeping area, and on every level of the home.

Newer smoke alarm technologies provide greater levels of protection than ever before. Combination alarms with ionization and photoelectric sensors respond to both flaming and smoldering fires. Interconnected alarms offer the best protection. They all sound if one sounds. Battery-operated alarms can now be connected by wireless technology.

Test smoke alarms monthly by pushing the TEST button. Change smoke alarm batteries at least once a year. If an alarm “chirps” or “beeps” to indicate low batteries, change them right away. Replace all smoke alarms at least every 10 years.



Home Electrical Safety Challenge



Home Electrical Safety Challenge

Why is there a different kind of outlet in my bathroom? What does that "TEST" button do? Why does the circuit breaker trip every time my portable air conditioner comes on? What's the difference between a power strip and a surge protector?

Do you know everything you should about your home's electrical system and the electrical products you use in it every day? If you're like most people, the answer is probably "no." It's time to change that. Electrically-related home fires and incidents result in hundreds of deaths, thousands of injuries and more than a billion dollars in property damage each year. A healthy respect for electricity and a basic knowledge of electrical safety practices can help keep your home and family safe from electrical hazards all year long.

The Home Electrical Safety Challenge provides a simple exercise to help you give your home an electrical safety "check-up." Each week during National Electrical Safety Month, use the Challenge worksheets in this section to take a look at a different area of your home. Learn to identify potential electrical hazards and correct them. Making a few easy changes to improve safety can also lead to increased energy efficiency and savings on your utility bills.

Is your home ready for the challenge?

The Home Electrical Safety Challenge was developed to help raise awareness about potential home electrical hazards. This exercise is not a substitute for an electrical system inspection performed by a licensed, qualified electrician.

Many of the conditions that cause electrical fires and incidents can be detected during a home electrical system inspection.

ESFi recommends that you have an electrical system inspection conducted if:

- Your home is 40 years old or older
- You purchase a previously-owned home
- Your home has undergone a major renovation
- You have added major new appliances in the last 10 years



Home Electrical Safety Challenge Worksheet – Week 1

Use this worksheet to help you evaluate the electrical safety of your kitchen. Mark your answers below. Then, check them against the ESFI-recommended answers on the Answer Key. Visit ESFI's *Virtual Home* at <http://virtualhome.esfi.org> to learn more about home electrical safety.

Week 1: Cooking Up Safety in the Kitchen

Y N

- 1. Are the range, oven, and exhaust hood clean and free of debris?
- 2. Is the cooking area around the range/oven clear of combustibles, such as towels, napkins, and pot holders?
- 3. Is there enough room to allow for air circulation behind the refrigerator?
- 4. Are the refrigerator coils free of dirt buildup that reduces efficiency and creates a fire hazard?
- 5. Are there electrical appliances placed near the sink?
- 6. Have you tested your ground fault circuit interrupters (GFCIs) this month?
- 7. Do you plug all of your counter top appliances into GFCI-protected outlets?
- 8. Are all electrical cords in good condition with no signs of fraying, cracking, or other damage?
- 9. Are there any appliance cords placed close to a hot surface like the toaster, oven or range?
- 10. Do you have appliance cords that are dangling from counters or tables where they could be pulled on or tripped over?
- 11. Do you leave your toaster, coffee maker, and other counter top appliances plugged in when you are not using them?

The Home Electrical Safety Challenge was developed to help raise awareness about potential home electrical hazards. This exercise is not a substitute for an electrical system inspection performed by a licensed, qualified electrician.



Home Electrical Safety Challenge Worksheet – Week 2

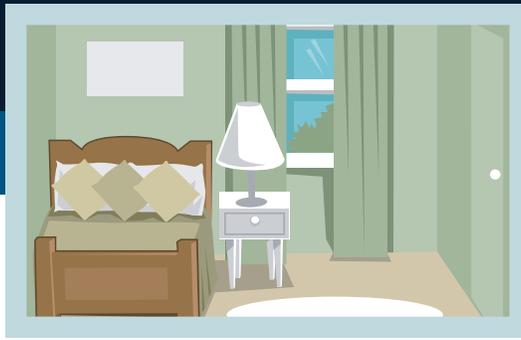
Use this worksheet to help you evaluate the electrical safety of your family room. Mark your answers below. Then, check them against the ESFI-recommended answers on the Answer Key. Visit ESFI's *Virtual Home* at <http://virtualhome.esfi.org> to learn more about home electrical safety.

Week 2: Plug Into Safety in the Family Room

Y N

- 1. Is your home equipped with tamper resistant receptacles (TRRs) to reduce the risk of electric shock injuries to children?
- 2. Are all of your light switch and outlet cover plates in good condition and not cracked or broken?
- 3. Are any of the light switch plates or outlet cover plates hot to the touch?
- 4. Is furniture arranged so that outlets are available for all of your lamps, entertainment equipment, and appliances without the use of extension cords?
- 5. Are you using an extension cord as a permanent power solution?
- 6. Do you check extension cords before each use to ensure they are in good working order with no signs of fraying, cracking, or other damage?
- 7. Are you using power strips because you have too few outlets to meet your needs?
- 8. Do you know the capacity of the circuit to which your power strip is connected and the power requirements of the equipment being plugged in?
- 9. Is your computer and other electronic equipment protected from power surges by a surge protector?
- 10. Does your surge protector have cable and phone jacks to provide protection for your phone, fax, modem, cable receiver, and television?
- 11. Is your surge protector plugged directly into a three-prong grounded outlet?
- 12. Do your entertainment center and computer equipment have plenty of space around them for ventilation?
- 13. Are liquids, including drinks, kept away from electrical items like televisions and computers?

The Home Electrical Safety Challenge was developed to help raise awareness about potential home electrical hazards. This exercise is not a substitute for an electrical system inspection performed by a licensed, qualified electrician.



Home Electrical Safety Challenge Worksheet – Week 3

Use this worksheet to help you evaluate the electrical safety of your bedroom. Mark your answers below. Then, check them against the ESFI-recommended answers on the Answer Key. Visit ESFI's *Virtual Home* at <http://virtualhome.esfi.org> to learn more about home electrical safety.

Week 3: Wake Up to Safety in the Bedroom

Y N

- 1. Do you have working smoke alarms in each bedroom, outside each sleeping area, and on every level of your home?
- 2. Have you tested your smoke alarms this month?
- 3. Are combustibles like paper or fabric located near your lamps or light bulbs?
- 4. Do you know the recommended bulb wattages for your light fixtures?
- 5. Are you using bulbs with the correct wattage?
- 6. Are all light bulbs screwed securely into the sockets?
- 7. Is your portable air conditioner plugged into its own dedicated circuit?
- 8. Have you cleaned your portable air conditioners in preparation for the summer season?
- 9. Does your ceiling fan have a wobble?
- 10. Have you dusted/cleaned your ceiling fan recently?
- 11. Do you leave portable electronic devices and/or their battery chargers plugged in even after they are fully charged?

The Home Electrical Safety Challenge was developed to help raise awareness about potential home electrical hazards. This exercise is not a substitute for an electrical system inspection performed by a licensed, qualified electrician.



Home Electrical Safety Challenge Worksheet – Week 4

Use this worksheet to help you evaluate the electrical safety of your basement. Mark your answers below. Then, check them against the ESFi-recommended answers on the Answer Key. Visit ESFi's *Virtual Home* at <http://virtualhome.esfi.org> to learn more about home electrical safety

Week 4: Build a Foundation of Safety in the Basement

Y N

- 1. Does your circuit breaker box have a label to indicate when your last electrical system inspection took place?
- 2. Are all of your circuit breakers labeled to indicate their correct amperage and which outlets/circuits/rooms they service?
- 3. Have your standard circuit breakers been replaced with arc fault circuit interrupters (AFCIs) that offer a higher level of fire protection?
- 4. Did you test your AFCIs yet this month?
- 5. Have you ever received even a slight shock from one of your large appliances?
- 6. Do your washing machine and/or dryer move or vibrate excessively when operating?
- 7. Is the area around your dryer clean and free of clutter?
- 8. Do you clean your dryer lint filter after each load?
- 9. Did you have your furnace cleaned and inspected by a licensed, qualified professional yet this year?
- 10. Is your furnace properly vented to the outside?
- 11. Do you have a working carbon monoxide alarm on each level of your home and outside each sleeping area?
- 12. Is the temperature on your water heater set to 120° Fahrenheit or below?

The Home Electrical Safety Challenge was developed to help raise awareness about potential home electrical hazards. This exercise is not a substitute for an electrical system inspection performed by a licensed, qualified electrician.



Home Electrical Safety Challenge – Answer Key

Is there more you should do to ensure the electrical safety of your home and family? Check your answers against the ESFi-recommended answers below. Add up the total correct answers at the bottom to find out if your home was up to the Challenge!

Kitchen

1-Yes; 2-Yes; 3-Yes; 4-Yes; 5-No; 6-Yes; 7-Yes; 8-Yes; 9-No; 10-No; 11-No

Family Room

1-Yes; 2-Yes; 3-No; 4-Yes; 5-No; 6-Yes; 7-No; 8-Yes; 9-Yes; 10-Yes; 11-Yes; 12-Yes; 13-Yes; 14-No

Bedroom

1-Yes; 2-Yes; 3-No; 4-Yes; 5-Yes; 6-Yes; 7-Yes; 8-Yes; 9-No; 10-Yes

Basement

1-Yes; 2-Yes; 3-Yes; 4-Yes; 5-No; 6-No; 7-Yes; 8-Yes; 9-Yes; 10-Yes; 11-Yes; 12-Yes

Kitchen Correct Answers: _____

Family Room Correct Answers: _____

Bedroom Correct Answers: _____

Basement Correct Answers: _____

Total Correct Answers: _____

Home Electrical Safety Challenge Scoring

44 or more correct answers: Keep up the good work! Continue to make electrical safety a priority in your home.

37 to 43 correct answers: You're off to a good start. Focus on the areas where you didn't score as well. A few simple changes can make a big difference in safety.

36 or fewer correct answers: You've got some work to do. Consider having a licensed, qualified electrician help you improve the electrical safety of your home.

The Home Electrical Safety Challenge was developed to help raise awareness about potential home electrical hazards. This exercise is not a substitute for an electrical system inspection performed by a licensed, qualified electrician.