Recipes for Kitchen Safety

Ingredients:

- Plug all appliances directly into outlets.
- Move cords away from all heat sources.
- Do not use damaged cords.
- Unplug all countertop appliances after use.
Directions

ESFI encourages you to use these resources as part of your Fire Prevention Week activities. These tools will help you to recognize and anticipate dangers associated with common kitchen appliances. Use our checklist to take inventory of your safety devices’ functionality and ensure that your appliances avoid common fire hazards. Keep the tip sheets on hand to remind you how to properly maintain your kitchen, appliances and safety devices to ensure that your kitchen remains electrically safe all year long. Learn more about kitchen fire safety and electrical fire prevention with the many videos and interactive activities available on ESFI’s website at www.esfi.org.

Interested in making electrical safety part of the Fire Prevention Week campaign for your school, community or workplace? ESFI provides all of our safety resources, including this Fire Prevention Week Toolkit, at no cost. We invite you to copy and distribute our resources, but not otherwise revise or alter the material.
Campaign Introduction

What is Fire Prevention Week?

Fire Prevention Week was established to commemorate the Great Chicago Fire, the notorious blaze that killed more than 250 people, left 100,000 homeless, destroyed more than 17,400 structures, and burned more than 2,000 acres on October 8th and 9th, 1871. Forty years after the Great Chicago Fire, the Fire Marshals Association of North America (today known as the International Fire Marshals Association), decided that the anniversary should be used as an occasion to raise awareness about the importance of fire prevention.

The National Fire Protection Association (NFPA)’s theme for Fire Prevention Week 2013, “Prevent Kitchen Fires,” provides information and tools to help reduce the incidence of kitchen fires, the most common origin of home fires today. From October 6-12, 2013, the NFPA leads the charge for home fire safety and the Electrical Safety Foundation International (ESFI)’s campaign, “Recipes for Kitchen Safety” encourages and equips you to be proactive in making your kitchen safer.

For more information about Fire Prevention Week, visit the NFPA website at www.firepreventionweek.org.

What Does Electrical Safety Have to Do with Kitchen Fires?

Electrical failures are a leading cause of home fires every year, including those fires occurring in the kitchen. According to the National Fire Protection Association, U.S. fire departments respond to an estimated 160,220 reported U.S. home structure fires per year involving equipment normally used in the kitchen, which resulted in annual averages of 386 reported civilian deaths, 5,002 civilian injuries, and $869 million in direct property damage.

Each year, the Electrical Safety Foundation International supports NFPA’s annual campaign to promote fire safety during Fire Prevention Week. NFPA’s 2013 campaign focuses on preventing kitchen fires, and ESFI’s 2013 “Recipes for Kitchen Safety” resources will assist this effort by identifying risks associated with appliances commonly involved in such fires. ESFI’s supporting campaign materials, which include a checklist, fact sheets, and a comprehensive toolkit, provide users with the resources necessary to identify and remedy electrical issues that are most often involved in kitchen fires.

Who is ESFI?

The Electrical Safety Foundation International (ESFI) is a non-profit organization dedicated exclusively to promoting electrical safety in the home, school, and workplace. We engage in public education campaigns throughout the year to increase electrical safety awareness and advocate for safe electrical practices. Education and awareness are the keys to reducing electrically-related fires, fatalities, injuries, and property loss.
Kitchen Fire Fact Sheet:

For many, cooking is an enjoyable part of the day in which you can be creative and provide the centerpiece for gathering with friends and loved ones. Unfortunately, electrical appliances add a dash of danger when not properly monitored and maintained.

Did you know..?

- Two-thirds of U.S. households cook at least one hot meal a day.
- Sundays have the highest incidence of home cooking equipment fires, however cooking equipment fires that occurred on Saturdays resulted in more fatalities.
- Little change has been seen in the frequency of reported cooking fires in the past five years.

How much do you know about kitchen safety?

Test your knowledge with the following True or False statements.

1. True or False? Ovens are the most common appliance involved in kitchen fires.
2. True or False? Baking most often results in fire when the cook time exceeds 60 minutes.
3. True or False? Food is always the source of ignition in kitchen fires resulting from microwave use.
4. True or False? You should vacuum refrigerator coils every three months to prevent potentially dangerous dirt build-up.
5. True or False? Most kitchen fire injuries are the result of attempts to fight the fire.

Answers:

1. False. Ranges account for the majority of total reported home structure fires involving cooking equipment and even larger shares of associated civilian deaths and civilian injuries. However, many of these fires are avoidable. The most common cause of these fires is equipment being left unattended while in use.

2. False. Fire began in the first 15 minutes for 88% of the fires resulting from baking. Be sure to clean your appliances before use to minimize your fire risk.

3. False. One in every six of microwave oven home structure fires cited appliance housing or casing as the item first ignited. Follow manufacturers’ instructions and code requirements when installing and operating cooking equipment.

4. True. In 2010, an estimated 1,680 reported U.S. home structure fires involving refrigerators, freezers, or ice makers. Keeping the coils clear of debris will reduce your risk.

5. True. Three out of every five reported non-fatal home cooking injuries occurred when the victims tried to fight the fire themselves. When in doubt, just get out! When you leave, close the door behind you to help contain the fire. After you leave, call 9-1-1 or the fire department from a cell phone or a neighbor’s telephone.
Recipes for Kitchen Safety (Checklist)

Serve up safety by taking the time to follow these recipes to reduce the risk of an electrical fire.

**Appliances**

**Are any appliances plugged into extension cords on a permanent basis?**
- **NO.**
- **YES.** Have a licensed electrician install new outlets where needed or move equipment closer to an outlet.

Extension cords are designed for temporary use only. Extended use may damage the cord, creating a fire and shock hazard.

**Are all appliance cords placed so they will not come in contact with hot surfaces?**
- **NO.** Move cords away from all heat sources, such as a range or toaster.
- **YES.**

Cords can melt or burn from excess heat. This can expose wires and lead to a fire or electric shock.

**Is any cord cracked, frayed, or otherwise damaged?**
- **NO.**
- **YES.** Do not use damaged cords. Have a licensed electrician replace the cord or replace the equipment.

Damaged cords may have exposed wires that can be a fire and shock hazard.

**Are cords attached to anything with nails or staples?**
- **NO.**
- **YES.** Remove nails or staples. Check cord and replace if damaged.

Nails and staples can cut or pinch insulation or break wire strands, presenting a fire or shock hazard.

**Are cords kept wrapped up while being used?**
- **NO.**
- **YES.** Unwrap cords.

Wrapped cords trap heat, which can lead to melting or weakening of the insulation.

**Have any of your appliances been recalled by the manufacturer?**
- **NO.**
- **YES or I DON’T KNOW.** Do not use recalled appliances. Replace the appliance with one that has not been recalled. Visit the Consumer Product Safety Commission (CPSC) website (http://www.cpsc.gov/en/Recalls/) to search for product recalls.

The CPSC website also provides information about what remedy is being offered by the manufacturer for recalled products, such as a refund or a repair.
Smoke Alarms

Are any countertop appliances located near the sink?

☐ NO.
☒ YES. Relocate the appliance to an outlet further away from the sink to prevent contact with water.

Do not use electrical appliances that have been wet. Electrical equipment exposed to water can be extremely dangerous.

Are all countertop appliances unplugged when not in use?

☒ NO. Unplug all countertop appliances after use.

☐ YES.

Even when turned off, plugged-in electrical appliances may pose a shock hazard if they come into contact with water. Or a worn switch may turn on with no one touching it.

Are all appliance surfaces that are exposed to heat clean of dirt and food residue?

☒ NO. Depending on use, develop a cleaning schedule to be sure appliances do not accumulate potentially flammable byproducts.

☐ YES.

Overflowed or splattered food in and around appliances could ignite if not cleaned prior to the next use.

Do you have the correct number of smoke alarms?

☒ NO or I DON’T KNOW. Install smoke alarms on each level of the home, outside each sleeping area, and inside each bedroom.

☐ YES.

Smoke alarms save lives. Nearly two-thirds of home fire deaths occur in homes without working smoke alarms.

Have you changed the batteries this year?

☒ NO. Replace batteries at least once a year or sooner if they begin to "chirp."

☐ YES.

Without sufficient power, the smoke alarm will not sound.

Do you test them every month?

☒ NO. Test smoke alarms every month by pressing the TEST button.

☐ YES.

Smoke alarms can stop working without showing signs of failure, so regular testing is necessary to ensure they are working properly.
Are your smoke alarms less than 10 years old?

X NO or I DON'T KNOW. Replace all smoke alarms at least every 10 years.

✓ YES.

The components inside smoke alarms can wear out over time, which could affect their operation.

Do you have Arc Fault Circuit Interrupters (AFCIs)?

X NO or I DON'T KNOW. Consider having a licensed electrician replace the standard circuit breakers with AFCIs.

✓ YES.

AFCIs are advanced circuit breakers that provide greater electrical fire protection.

If AFCIs are installed, do you test them every month?

X NO. Test AFCIs each month using the TEST button. If defective, have it replaced by a licensed electrician.

✓ YES.

AFCIs can stop working without showing signs of failure, so regular testing is necessary to ensure they are working properly.

Do your kitchen outlets have Ground Fault Circuit Interrupters (GFCIs)?

X NO or I DON'T KNOW. Consider having a licensed electrician install GFCIs in all kitchen outlets.

✓ YES.

GFCIs provide protection from electric shock in areas where electricity and water are in close proximity.

If already installed, do you test GFCIs every month?

X NO. Test GFCIs each month by pushing the RESET button. Then plug in a light and turn it on. Next press the TEST button. The light should turn off. If the light did not turn off after pressing TEST it is defective, and should be replaced by a licensed electrician. (Remember to press reset after testing.)

✓ YES.

GFCIs do not show visible or audible signs of failure unless specifically tested. So be proactive in ensuring you and your loved ones' safety.
All About Arc Fault Circuit Interrupters (AFCIs)

Arc Fault Circuit Interrupters (AFCIs) are one of the most important advancements in electrical fire protection for the home. In fact, the U.S. Consumer Product Safety Commission estimates that AFCIs could prevent roughly 50 percent of the electrical fires that occur every year.

What is an arc fault?
- An arc fault is a dangerous electrical problem caused by damaged, overheated, or stressed electrical wiring or devices.
- Arc faults can occur when older wires become frayed or cracked, when a nail or screw damages a wire behind a wall, or when outlets or circuits are overburdened.

What are arc fault circuit interrupters, or AFCIs?
- AFCIs are devices that replace standard circuit breakers in your home’s electrical service panel.
- AFCIs offer greater electrical fire protection than traditional breakers because they are equipped with advanced internal electronics that detect hazardous arcing conditions and shut down the electricity before a fire can start.

How much do AFCIs cost?
- These devices can be purchased at any local electrical distributor, hardware store, and home improvement center across the country for approximately $35 each.

Can I install them myself?
- AFCIs should only be installed or replaced by a licensed, qualified electrician.

Once installed, you need to be sure your AFCIs are functioning properly. Follow these simply steps to test your AFCIs every month:

1. Open the electrical service panel.
2. With the breakers switch in the ON position, press the AFCI TEST button.
3. The AFCI should trip, causing the switch to move to either the OFF position or the TRIP position if the breaker includes one.
4. If it trips, the AFCI is working. Turn it OFF and then ON again to reset.
5. If the AFCI does not trip, contact a licensed electrician to replace it.

What’s the difference between an AFCI and a GFCI?
The GFCI is designed to protect people from severe or fatal electric shocks while the AFCI protects against fires caused by arcing faults.
Get Informed about Ground Fault Circuit Interrupters (GFCIs)

Since the 1970s, GFCIs have saved thousands of lives and have helped cut the number of home electrocutions in half. Even today’s modern electrical devices are subject to the basic principles of electricity. One of the most important being – water and electricity don’t mix! Luckily, there is a technology available to help protect you from this shocking hazard.

What is a ground fault?

- A ground fault is an unintentional electrical path between a power source and a grounded surface.
- These leakage currents usually occur when an electrical appliance is damaged or the electrical parts are wet, causing electrical current to flow outside of the circuit conductors.
- If your body provides a path to the ground for this current, you could be burned, severely shocked, or electrocuted.

What are ground fault circuit interrupters, or GFCIs?

- GFCIs are electrical safety devices that are designed to protect people from electric shock and electrocution.
- GFCIs prevent deadly shock by quickly shutting off power to the circuit if the electricity flowing into the circuit differs by even a slight amount from that returning, indicating a loss of current.
- Typically, GFCIs are installed in areas where water and electricity are in close proximity, such as the bathroom, kitchen, garage, basement, and outdoors.
- They are especially useful for cord-connected appliances and equipment used outdoors or near water.

How much do GFCIs cost?

- GFCI outlets are generally fairly inexpensive, starting under $15.

Can I install them myself?

- GFCIs should only be installed by a licensed, qualified electrician.
- Portable GFCIs require no tools to install and provide flexibility in using receptacles that are not GFCI protected. They are commonly used outdoors.

Follow these simply steps to test your GFCIs every month to be sure they are properly functioning:

1. Push the “reset” button on the GFCI to prepare the outlet
2. Plug an ordinary nightlight into the GFCI and turn it ON. The light should now be on.
3. Push the “test” button of the GFCI. The nightlight should turn OFF.
4. Push the “reset” button again. The nightlight should now go ON again.
5. If the nightlight does not turn off when the “test” button is pushed, then the GFCI is not properly protecting you from shock or electrocution. Contact a licensed electrician to check the GFCI and correct the problem.
Smoke Alarm Safety Tips and Reminders

Almost two-thirds of home fire deaths resulted from fires in homes with no smoke alarms or no working smoke alarms. Follow these simple tips to ensure your home is adequately protected by smoke alarms.

- For the best protection, smoke alarms should be interconnected, so that they all sound if one sounds. Manufacturers are now producing battery operated alarms that are interconnected by wireless technology.
- Combination smoke alarms that include both ionization and photoelectric alarms offer the most comprehensive protection. An ionization alarm is more responsive to flames, while a photoelectric alarm is more responsive to a smoldering fire.
- Hardwired smoke alarms with battery backups are considered to be more reliable than those operated solely by batteries.
- Install smoke alarms at least 10 feet from cooking appliances to reduce the possibility of nuisance alarms. Alarms installed between 10-20 feet of a cooking appliance must have a hush feature to temporarily reduce the alarm sensitivity or must be a photoelectric alarm.
- If possible, alarms should be mounted in the center of a ceiling. If mounted on a wall, they should be located 6 to 12 inches below the ceiling.
- Avoid locating alarms near bathrooms, heating appliances, windows or ceiling fans.

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

Choose alarms that bear the label of a nationally-recognized testing laboratory.

If possible, alarms should be mounted in the center of the ceiling.

Test smoke alarms on a monthly basis by pressing the TEST button.

Batteries for battery-operated or battery back-up alarms should be replaced at least once a year. If an alarm “chirps” or “beeps,” it should be replaced immediately.

Keep the exterior of the smoke alarm clear. Never paint over a smoke alarm and occasionally dust or lightly vacuum the exterior to remove cobwebs.

All smoke alarms should be replaced at least every ten years, or sooner if indicated in the manufacturer’s instructions.

Choose alarms that bear the label of a nationally-recognized testing laboratory.
Fire Prevention Week Resource List:

**VIRTUAL HOME** – Visit ESFI’s interactive Virtual Home to learn more about your home’s electrical system and the devices you use in it every day.  [http://virtualhome.esfi.org/](http://virtualhome.esfi.org/)

**VIRTUAL FIRE DRILL** – This video game-style simulation allows you to put your fire safety knowledge to the test by “escaping” from a virtual fire. After successfully navigating the simulation, informational is provided to guide you through the process of developing an effective family fire safety plan.  [http://virtualfiredrill.esfi.org/](http://virtualfiredrill.esfi.org/)

**KIDS’ CORNER** – The Kids’ Corner’s entertaining cartoon videos and interactive games deliver critical electrical and fire safety messages to children in a fun, engaging environment.  [http://kids.esfi.org](http://kids.esfi.org)

**ESFI SMOKE ALARM VIRTUAL DEMONSTRATION** – On average, 8 people die in a home fire each day in the United States, for a total of nearly 3,000 fatalities every year. Follow these simple steps to make sure your home and family are adequately protected by working, properly installed smoke alarms.  [http://esfi.org/index.cfm/page/ESFI-Smoke-Alarm-Virtual-Demonstration/cdid/11477/pid/11405](http://esfi.org/index.cfm/page/ESFI-Smoke-Alarm-Virtual-Demonstration/cdid/11477/pid/11405)

**SMOKE ALARM SAFETY TIPS FOR OLDER ADULTS** – Some older adults are affected by hearing loss which impedes their ability to hear and react to smoke alarms. Use these tips to be sure people of all ages are safe.  [http://esfi.org/index.cfm/page/Smoke-Alarm-Safety-Tips-for-Older-Adults/cdid/12833/pid/11406](http://esfi.org/index.cfm/page/Smoke-Alarm-Safety-Tips-for-Older-Adults/cdid/12833/pid/11406)

**AFCI VIRTUAL DEMONSTRATION** – Each year in the United States, arcing faults are responsible for starting more than 30,000 home fires. Many of these fires can be prevented by arc fault circuit interrupters, or AFCIs.  [http://esfi.org/index.cfm/page/AFCI-Virtual-Demonstration/cdid/10456/pid/11405](http://esfi.org/index.cfm/page/AFCI-Virtual-Demonstration/cdid/10456/pid/11405)

**GFCI VIRTUAL DEMONSTRATION** – Ground fault circuit interrupters, or GFCIs, have saved thousands of lives over the last three decades. Found mostly in areas where electrical products might come in contact with water, a GFCI is a special type of electrical outlet designed to cut off power before an electrical shock can occur. GFCIs should be tested every month to ensure they are in working order.  [http://esfi.org/index.cfm/page/GFCI-Virtual-Demonstration/cdid/10458/pid/11405](http://esfi.org/index.cfm/page/GFCI-Virtual-Demonstration/cdid/10458/pid/11405)

**P.I. PLUG’s SMOKE ALARM SAFETY VIDEO** – Watch Private I. Plug as he celebrates his smoke alarm’s birthday and learns about fire escape plans.  [http://esfi.org/index.cfm/cd/FAP/cdid/12596/pid/10272](http://esfi.org/index.cfm/cd/FAP/cdid/12596/pid/10272)

**COOKING SAFETY TIPS** – Follow these simple tips to be sure you are cooking with care.  [http://esfi.org/index.cfm/cd/FAP/cdid/11432/pid/10272](http://esfi.org/index.cfm/cd/FAP/cdid/11432/pid/10272)


**COOKING AND KITCHEN SAFETY TIPS FOR OLDER ADULTS** – Cooking is fun for all ages, but older adults are at greater risk from kitchen fires. Help spread the word on the cooking tips for older adults.  [http://esfi.org/index.cfm/page/Cooking-and-Kitchen-Safety-Tips-for-Older-Adults/cdid/12825/pid/11406](http://esfi.org/index.cfm/page/Cooking-and-Kitchen-Safety-Tips-for-Older-Adults/cdid/12825/pid/11406)

**APPLIANCE SAFETY TIPS** – Identify and prevent electrical and fire safety hazards with these quick tips.  [http://esfi.org/index.cfm/page/Appliance-Safety-Tips/cdid/11228/pid/10272](http://esfi.org/index.cfm/page/Appliance-Safety-Tips/cdid/11228/pid/10272)
**BASIC FIRE ESCAPE PLANNING** – You may need to exit the house to ensure the safety of yourself and your loved ones. Use these tips to develop and practice your family’s fire escape plan. [http://www.nfpa.org/safety-information/for-consumers/escape-planning/basic-fire-escape-planning](http://www.nfpa.org/safety-information/for-consumers/escape-planning/basic-fire-escape-planning)

**APPLIANCE RECALLS** – Sometimes manufacturers recall their products due to safety concerns. Use this website to check if your appliances are affected. [http://www.cpsc.gov/en/Recalls/](http://www.cpsc.gov/en/Recalls/)

**SEND AN E-CARD TO ENCOURAGE OTHER TO COOK SAFELY** – Share your knowledge of kitchen safety with others! Use this e-card to let a loved one know you’re thinking about them and their safety. [http://kids.esfi.org/card/cooking_safety](http://kids.esfi.org/card/cooking_safety)

For additional fire and electrical safety resources, visit ESFI at [www.esfi.org](http://www.esfi.org) and the National Fire Protection Association at [http://www.nfpa.org/safety-information/fire-prevention-week](http://www.nfpa.org/safety-information/fire-prevention-week).

Resources noted with an asterisk mark (*) are also available in Spanish. To locate those resources, visit [www.esfi.org](http://www.esfi.org).