



Fire Prevention



Types of Smoke Alarms

Death rates in home fires are far lower — about 60% lower — in homes with working smoke alarms, the National Fire Protection Association says.

That makes a working smoke alarm a critical addition to any home. Here's how to pick a good smoke alarm to protect your loved ones.

IONIZATION SMOKE ALARMS

Ionization smoke alarms detect smoke using a small amount of radioactive materials, usually Americium-241. They're great at sensing invisible fire particles produced by fast, flaming fires such as grease fires, but they are

more prone false alarms from cooking or steam.

In these kinds of smoke alarms, the radioactive material is placed between two electrically charged metal plates. The radiation continually ionizes the air, allowing a steady, small electric current to flow between the two plates. When smoke enters the detector, it disrupts the ion flow, stopping the electrical current and triggering the alarm.

Install these alarms near kitchens or in other areas where rapid, high-heat

flames are a concern.

PHOTOELECTRIC SMOKE ALARMS

These alarms use a light beam and optical sensor to spot visible smoke. They're best at finding slow, smoldering fires and cause fewer false alarms from cooking or steam. Smoldering fires can come from burning furniture or bedding or electrical wiring. Install these alarms in living rooms, bedrooms and near sleeping areas. Mount them on the ceiling or high on a wall.

INSTALL BOTH TO SAVE LIVES

First Alert smoke detector experts say for the best protection of your

home, install both kinds of protectors or, even better, choose alarms with dual sensors that use both sensing technologies.

Either way, no matter what kind of smoke alarms you decide to install, make sure the alarms are tested and listed to meet the latest Underwriters Laboratories or Electrical Testing Laboratories standards. Look for the UL or ETL mark on the product. Install alarms away from drafts, including ceiling fans, HVAC vents, and windows or doors. Also, don't put them in dead air spaces such as the extreme corners of a room or tight spaces near light fixtures. They should also be installed at least 36 inches away from bathroom doors.

Clean Your Dryer Vent Regularly

The dust, fibers and lint collected in dryer vents are tinder just waiting for a spark.

The National Fire Protection Association says clothes dryers and washing machines cause, on average, 13 deaths every year, 444 injuries and \$238 million in property damage. A third of dryer fires were caused by a failure to clean, far more than electrical failures or malfunctions. Here's how to keep your family safe.

DRYER SAFETY

The NFPA says start by having your dryer installed and serviced by a professional. Make sure the air exhaust vent pipe is not restricted and the outdoor vent flap will open when the dryer is operating. Clean the lint out of the vent pipe regularly or have a removal service do it for you. Gas dryers should be inspected by a qualified professional to make sure the gas line and connection are intact and not leaking.

Never use the dryer without a lint filter and make sure you clean the filter before and after each load of laundry. Remove any lint that has collected around the drum. Follow the manufacturer's operating instructions and don't overload the dryer. Turn it off when you leave home or go to bed.

Clothing that have come into contact with flammable substances, such as gasoline, should be laid outside to dry



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before being washed and dried as usual.

HOW TO CLEAN YOUR DRYER

Start by emptying your lint screen every single load. Too much lint will stop heated air from moving through the machine and is also a fire hazard. Still, lint and other particles

will get past your filter. You'll need to clean the dryer vent every few months. Here's how Consumer Reports recommends to do it.

Start by pulling the dryer out from the wall and disconnect it from the power source. Separate the vent from the dryer and vacuum both ends using a crevice attachment on the

vacuum. Clean the back of the dryer and check to make sure the duct isn't damaged or restricted. Clean out the length of the dryer duct to where it exhausts outside. If the duct is one of the accordion-style vents that can sag and catch lint, this is especially important.

If your dryer has a moisture sensor, clean it with a cotton

ball and rubbing alcohol every few months or when the auto-dry cycles start missing the mark. It's usually located just inside the dryer underneath the door. Put the dryer back and, finally, check to make sure the outside vent cover opens while the dryer is running and that you can feel air flowing through it.

Surge Protector Safety

Surges are sudden increases in voltage that are usually too small to be noticed by you, but over time, surges can damage sensitive electronic equipment, the Energy Education Council says.

Surges can be created by storms or lightning strikes or by equipment in the home such as refrigerators, freezers, hair dryers and vacuum cleaners.

The way to protect your expensive equipment is by installing surge protectors. But improperly installed surge protectors and power strips are part of the cause of 51,000 home fires annually, Coose County, Oregon, says.

PLUG-IN SURGE PROTECTORS

Plug-in surge protectors are installed within 15 feet of electronics. The council says surge protectors vary in quality. Look for devices with a Underwriters Laboratories (UL) 1449 label. They also carry a joule or surge-current rating; the higher the number, the better the quality of the internal surge-stopping components. Also look for the clamping voltage. That's the voltage the surge protector will let through to your equip-



ment before it diverts to the ground. The lower the clamping voltage, the better.

The device should also have status lights that will display the right input wiring configuration and failure indicator lights or buzzers. If the failure indicator goes off, it's time to replace the protector. Some surge protectors are also designed to permanently turn off when they fail.

WHAT NOT TO DO

- Do not connect multiple surge protectors or power strips together. This practice, often called daisy chaining, can lead to equipment failure and fires. It also encourages overloading and, again the risk of fire.
- Do not use any surge protectors or power strips with frayed wires. Do not remove the UL label.

- Do not cover a surge protector with a carpet, furniture or other item that will limit air circulation.
- Do not put a surge protector in a moist or damp environment.
- Do not use a surge protector that is hot to the touch.
- Do not use a surge protector without an internal circuit breaker.
- Do not plug multiple surge

protectors into the same duplex outlet.

- Do not staple, tack or tape a surge protector.
- Do not use a three-to-two prong adapter to power a surge protector.
- Do not use cords more than six feet in length.
- Do not use surge protectors for medical equipment unless it has been approved by the manufacturer for this purpose.

Stay Safe While Keeping Warm

Electric blankets and heating pads might keep you warm and cozy, but they can also be dangerous if used improperly.

The Electrical Safety Foundation International says they cause around 500 fires every year and almost all of them involve electric blankets that are more than 10 years old. Here are some tips on using these appliances safely:

- Do not use heating appliances while sleeping or leave them on when you're not at home.
- Do not plug electric blankets into an extension cord or power strip.
- Look for dark, charred or frayed spots on the blanket or heating pad or cords that are cracked or frayed. Replace any blankets or heating pads with these signs of age.
- Purchase electric blankets and heating pads from reputable retailers that have been approved by a national testing laboratory, such as Underwriters Laboratories (UL).
- Do not allow anything to rest on top of the heating pad or electric blanket as it may cause it to overheat.
- Do not use heating pads and electric blankets together.
- If an electric blanket or heating pad is more than 10 years old, consider replacing it.
- Do not fold electric blan-



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kets while in use as it can overheat and cause a fire.

- If you're using the heating pad or electric blanket for your pets, make sure you're using one specifically designed for pet use. They use a lower voltage that's more appropriate for

your four-legged friends.

- Do not use electric blankets on sofa beds, pullout beds or mechanically adjustable beds. The wiring can become pinched or frayed.
- Store electric blankets by rolling them, not folding them.

- Do not run electric blanket or heating pad wires under rugs or fasten them to walls with staples or pins. Do not route electrical cords between the mattress and box spring or allow the cord to be pinched by furniture.

- Do not buy an electric blanket from a secondhand shop or garage sale.

- Do not use electric blankets and heating pads if you have urinary incontinence or some medical conditions that can make you less sensitive to heat.

Dangers of Knock-Off Chargers

Chargers for phones and other electronic devices seem to fall in the same black hole as the socks in the dryer.

We often replace them with knock-off chargers from online retailers or in the check-out line. But those quick and convenient chargers can not only cause a fire but also serious injuries.

“Although it is tempting to pick up an inexpensive phone charger to save money, buying and using cheap chargers is one place you might not want to cut corners,” says Erin Hollinshead, executive director of the Safe Electricity program. “Using an authentic replacement charger made by your mobile phone’s manufacturer is always a better choice.”

Cheap chargers are usually made with cheap components, Safe Electricity says, and those can be a burn and fire hazard. They can also cause damage to your electronic devices by overheating and overcharging the battery.

“Remember what your parents always said: You get what you pay for,” says Brad Adcock, Walton Electric Membership Corporation. “If you purchase a cheap charger, you might be buying trouble.”

To avoid fires and injuries, Safe Electricity recommends not leaving items that are charging unattended. Keep charging electronics away



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from flammable objects, such as bedding, and tell kids and teens to never place a charging device under their pillow. It can trap heat there and cause the pillow or bed to catch fire. Don’t touch charging electronic devices with wet hands or while standing in water. Chargers should be certified

by a reputable third-party testing laboratory. Try to only buy product-approved chargers and cables either made or certified by the manufacturer. Look for fakes or imposters that say they’re brand approved. If the price seems too good to be true, the organization warns, it probably is.

“They are readily available, easy to get, nice on the pocket-book, but be aware that you are going to get what you pay for,” says Randy Ivans, wire and cable program manager for UL, to Walton EMC. “These cheap chargers may or may not have safety certifications on them.”

Walton EMC says to only

use MiFi (Made for iPhone) certification for Apple phones. Android phone chargers should be compliant with USB-C specifications. It also warns people not to have a charger plugged in when it’s connected to a phone and don’t charge devices in hot environments.

Don't Become a Statistic

An annual average of 12,000 fires per year involve grills, the National Fire Protection Association says.

The organization says July is the peak month for grill fires, followed by June, May and August. In about 20% of the fires, NFPA says, the grill had not been cleaned. About a quarter of the grill fires started on an exterior balcony or open porch. More than 20,000 people went to emergency rooms from grill injuries, the Consumer Product Safety Commission said.

But you don't have to fall into one of those statistical categories. Here are some tips from the NFPA about how to sling the burgers safely this grilling season.

GENERAL GRILLING SAFETY

- Keep your grill clean by removing grease from the grills and in the trays.
- Check for any fire restrictions in place in your area.
- Only use grills outside.

Position your grill away from buildings, deck railings and eaves or overhangs. Avoid overhanging branches.

- Keep children, pets and flammable objects at least three feet away from the grilling area.
- Never leave your grill unattended when in use.
- Use long-handled grilling tools to keep well away from



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heat and flames.

- Don't overload the grill with food.
- Keep a spray bottle of water handy for flare-ups. Water also won't ruin your food.

PROPANE AND GAS GRILLS

- Check propane and gas

grills for leaks before using them. You can do a quick test with a soapy mixture such as children's bubbles or dish soap along the hose, regulator and burner connections with the gas turned on. If you see bubbles, you have a leak and should immediately turn the cylinder off.

- Make sure your gas grill lid is open before lighting it.

PORTABLE GRILLS

- Use charcoal starter fluid appropriate for charcoal grilling. When you're done grilling, let the coals cool completely before disposing of them in a metal container.

• Do not add charcoal starter fluid to coals or kindling that has already been ignited. If your fire dies down, add dry kindling to bring it back. Never use gasoline or any other flammable liquid to start a fire.

- Position the grill a safe distance from lawn games, play areas and foot traffic.

What Is a Fire Warden?

Fire safety doesn't stop when you leave your home.

Workplace fire safety is just as critical. The Occupational Safety and Health Administration, OSHA, establishes the rules for workplace fire safety in which employers bear the responsibility for keeping employees safe.

To do so, they have to ensure proper emergency exits, fire suppression systems and employee training programs. This might mean designating a primary safety officer or fire warden. OSHA says there must be at least one fire marshal or designated safety officer for every 50 employees in most commercial buildings, 2024 National Fire Protection Administration rules say.

WHAT DO FIRE WARDENS DO?

Fire marshals or fire wardens serve as a link between management and employees during fire emergencies. They are responsible for conducting fire drills, inspecting fire safety equipment and ensuring evacuation routes are clear and accessible. In workplaces with more than 100 employees, fire wardens should receive special training from a recognized organization such as the National Association of Fire Investigators or the International of Fire Chiefs, fire

safety equipment manufacturer TechnoKontrol says.

Under OSHA regulations, employees must use fire safety equipment properly, evacuate safely and according to established procedures and avoid anything to increase fire risks in the workplace. They should also report any unsafe conditions, maintain a clean work area and recognize when

employees should evacuate or when to attempt to activate fire suppression systems.

The International Association of Fire Chiefs reports workplaces with properly trained fire marshals experience 67% fewer fire-related injuries and 45% less property damage compared to facilities without designated fire safety personnel.

MAINTAINING A FIRE SAFETY POLICY

A workplace's fire safety policy should cover evacuation procedures, fire extinguisher usage guidelines, employee training requirements, hazard reporting protocols, and the roles of fire wardens and marshals. It should also include fire prevention measures, maintenance schedules for

fire safety equipment, communication procedures during emergencies and responsibilities for different employee levels in the organization.

Fire wardens and marshals should use this plan to conduct their drills and coordinate any emergency response. The plan should also be updated regularly by trained safety personnel.



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