

FIRE PREVENTION



Your Fire Emergency Planning

The first and most important part of fire prevention is planning in the event of an emergency.

That's particularly true if the worst happens at night. You and your family will need to be prepared to respond promptly when alarms are activated. To be sure you're ready, conduct regular fire drills similar to those practiced in schools and workplaces. Experts recommend holding these drills at least twice a year, so everyone remembers the plan. Here are a few key elements to ensure safety at home:

MULTIPLE EXITS

Everyone should be prepared to access two different escape routes from your home, which can include doors and windows. For rooms located on the second floor, put easily accessible fire escape ladders in place. Practice using those ladders and reviewing how to do so with everyone in the household as part of your regular fire drills. Create a map of your residence so children can visualize and practice the escape routes. (These maps will be helpful to visitors, too.) Stay low while exiting so that you remain below the smoke level where there's breathable air.

MEETING PLACE

Experts say that there may be as little as two minutes to

evacuate your home during a fire. That's why it's so important to practice. Once everyone is outside, they should meet at a predetermined meeting location away from the home. This could be a specific tree, a mailbox, a nearby street sign or a neighbor's driveway. Once you've chosen, ensure that all family

members are aware of the designated spot.

LINES OF COMMUNICATION

Develop a clear plan for communication to follow during and after the evacuation.

You want to ensure that all family members stay

connected and accounted for. Establish an emergency plan that includes phone numbers in case you are unable to locate someone.

Train children to dial 911 if they need assistance, can't find a loved one, or need to share critical information with a dispatcher such as their name and address.

AFTER YOU LEAVE

Once you have evacuated, do not re-enter the premises for any reason. That includes for people, pets or your belongings. Tell dispatchers and firefighters about any missing friends or family members and allow them to conduct professional rescue efforts.



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Know the Everyday Risks

We've made significant advancements in the design of home building, appliances and wiring, yet fires continue to pose a serious threat.

Too often, that's because we underestimate everyday risks related to common activities like cooking or fireplaces. The proliferation of electronic devices has introduced new hazards. They can serve as potential ignition sources and may accelerate the spread of flames. Once started, a fire can escalate to life-threatening levels in as little as two minutes. That's why regular danger assessments are so critically important. Promptly address any issue you find.

YOUR SMOKE ALARMS

It's certainly inconvenient and annoying when smoke alarms are triggered by minor incidents, such as a meal that's been overcooked. But their importance in saving lives can't be overstated. Place multiple smoke alarms strategically throughout the residence. Promptly change the batteries if they begin to emit a random alert. Schedule battery replacements semi-annually or choose alarms equipped with 10-year batteries. Many people check these devices when they change clocks for daylight saving time. You can also mark the dates of



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Fire Prevention Weeks, celebrated twice yearly in October and April, as the time to check and replace your batteries.

ELECTRONICS AND OUTLETS

With the increasing prevalence of electronics in our homes, overloaded electrical outlets can become a significant fire hazard. Keep them in

good condition and avoid plugging too many things into them at once. Regularly inspect extension cords for signs of wear or damage to help prevent potential electrical fires.

MONITORING YOUR APPLIANCES

The risk of fire quickly increases when there are issues with the power supply

of everyday appliances, as well. Dryers are often linked to home fires due to highly flammable lint. Clean the lint screen after every use and make sure the vent leading to the outside is free from blockages.

A SAFER KITCHEN

Cooking is a leading cause of home fires. To lower the

risks, never leave the stove unattended. Position items such as paper product dispensers, curtains and towel racks well away from sources of heat or flame. Keep your microwave free from clutter, making sure the vents remain unobstructed. Never use water to extinguish a grease fire. Always have a fire extinguisher readily accessible.

Fire Proofing to Protect Kids

Too often, our children inadvertently start fire emergencies.

Practicing fire safety with kids in the home requires mapping out an advance escape route, so they're prepared for what's happening and how to react. Practice these comprehensive emergency plans regularly to make sure that everyone is well-prepared to take the necessary steps during a fire. Repetition will make these steps second nature to youngsters.

In the meantime, there are several smart childproofing options that can help make sure kids don't inadvertently start a fire.

SAFE STORAGE

Experts say hundreds of lives are lost and hundreds of millions of dollars in property damage occurs every year when children have accidents with flammable objects. That's why it's so important to educate youngsters about the dangers associated with fire. Store any matches, lighters and any other ignitable materials in secure locations where kids can't get to them. For added safety, choose lighters with child-resistant safety features. Teach children from an early age that fire is not a toy. Discussing the potential consequences for your home and family is vitally important because it personalizes the risks. More recently, a range of flameless options have been introduced that work as



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safer alternatives throughout the home.

AVOIDING FLAMES

One of the easiest ways to keep children and your home safe from fire is by simply avoiding flammable items and appliances. If you currently use

a gas-powered stove, consider transitioning to an electric version. They operate with heating coils beneath the cooking surface, rather than flames that can spread in the kitchen and then throughout the home. While the initial investment may be higher than with

traditional gas models, electric stoves offer a safer alternative in homes with children. Those with a fondness for candles might also consider flameless candles or scent warmers. Unlike traditional candles that rely on an open flame, scent warmers have a light bulb that

gently heats and melts scented wax. You might even save money over time, since the wax hardens and solidifies for reuse when the warmer is turned off. Flameless candles have the ambiance of the old-fashioned version but use a battery to create light, lowering the fire risk.

If There's a Wildfire

Always part of nature, wildfires can pop up in natural environments from forests to grasslands.

These are different from controlled burns, where officials set specific fire parameters to manage wildlife preserves or national parks. Instead, wildfires are usually unintentionally ignited. If houses are near enough to these spaces, or the flames simply rage out of control, fire can spread into neighborhoods to create significant property damage and loss of life.

Here's how to be prepared for a wildfire:

GETTING PREPARED

For residents in wild-fire-prone areas, it's important to establish multiple channels for receiving alerts. The National Weather Service, FEMA, park personnel and local authorities will provide key information about regional fire activity through text, email, smartphone notifications and broadcast alerts. (They can keep you informed about local air quality notifications, too.) Familiarize yourself with suggested escape routes and closely follow the instructions of emergency management officials if an evacuation becomes necessary.

AROUND THE HOME

Next, develop a comprehensive emergency plan and

familiarize all family members with it. Incorporate all locations where you regularly spend time into the plan, including your workplace, church, school or daycare. Keep insurance policies current and stay aware of your coverage for wildfire threats. Store personal documents in fireproof containers. Maintain a clear perimeter by removing leaves, sticks, debris and other

flammable substances from around your home. Keep a portable purifier on hand to address indoor air pollution caused by wildfire smoke.

DURING A WILDFIRE

Stay vigilant while paying attention to all emergency alerts and notifications. If local authorities instruct you to evacuate, do so immediately. Follow your family's

emergency plan and inform friends and family about where you're going. Should you become trapped, contact 911. Just be aware that emergency response times may be delayed or even unavailable, depending on the size and severity of the fire.

AFTER THE FIRE

If you've evacuated, don't return to your home until

local authorities say the area is safe. Exercise extreme caution, being careful to avoid hot ash, smoldering debris, charred trees and live embers. Use a respirator to minimize your exposure to dust particles. Finally, thoroughly document any property damage by taking photos of everything and then contact your insurance company for assistance.



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The Dangers of Smoke

The greatest mortality risk in a structure fire isn't getting burned. It's choking.

When flames break out, every second counts. The effects of smoke can incapacitate someone in a matter of moments. At the same time, if there's a fire in your home, you may have as little as two minutes to escape. Any escape plan has to take smoke into account if you're going to reach safety. Here's a look at the dangers of smoke – and how to avoid injury:

UNDERSTANDING THE RISKS

As a fire ignites, it depletes available oxygen and generates toxic gases. The National Fire Protection Association notes a range of very hazardous components, including toxic gases, vapors and particles. Carbon monoxide is the most prevalent toxic gas during a fire. Others such as hydrogen cyanide are produced by the combustion of PVC piping or plastic. Phosgene is emitted when burning materials like vinyl. Toxic droplets can form vapors that become dangerous when inhaled or absorbed through the skin. Microscopic substances may enter the respiratory system, become lodged in the lungs and pose serious, even fatal health risks.

WHEN THERE'S LOW OXYGEN

In the event of a fire, smoke and flames aren't the only hazards to worry about. As the combustion process consumes oxygen and produces various toxic gases, the impact on human functionality becomes increasingly significant. Oxygen levels of about 21 percent represent the typical composition of outdoor air. As the amount of oxygen in the air falls to 17 percent, you may experience impaired coordination and judgment. At 12 percent, new symptoms emerge such as headaches, fatigue and dizziness. When there's less than 10 percent oxygen, the risk of unconsciousness soars. At 6 percent, there is a potential for cardiac arrest, respiratory arrest and death. At the same time, increased air temps pose their own threat to respiratory systems: Even with just one breath, inhaling overheated gases can be lethal.

SAFETY PRECAUTIONS

When escaping from a fire, it's critically important that you remain low to the ground to avoid the presence of smoke. Since it rises, crawling at ground level lowers or even minimizes the risk of inhalation. Try to reach your previously designated external safe area as soon as possible since the air should be safer.



When to Leave Your Home

Fires can produce varying threat levels, depending on their size.

Keep a working fire extinguisher or two on hand in the event of smaller, contained fires. Develop a comprehensive emergency plan in the event of a large blaze, and familiarize all family members with it. Here's how to decide when to leave:

COMBATING A SMALL FIRE

If a small fire occurs, be prepared to douse it with a fire extinguisher. Inform everyone about the location of these critical emergency tools and how to properly operate them. Regularly inspect your fire extinguisher to confirm it is up-to-date, and replace them as necessary. Never douse a grease fire with water, and that will only make the situation worse. If you're not alerted to the fire until it's much larger, or if initial attempts to contain the flames are unsuccessful, it's time to evacuate the premises. Remain outside, and call 911.

PREPARING TO LEAVE

Should a larger fire ignite in your home, be ready to alert family members by shouting "Fire!" If you encounter smoke, excessive heat or flames that prevent escape through the home, exit out of an available window.



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Upper-level rooms should have a readily available fire-escape ladder, and everyone needs to be familiar with how to use it. If you're completely trapped, use a damp towel to seal the bottom of the door. Never open a warm door. This can cause flames to rapidly spread throughout the

structure. Contact the fire department or dial 911. Open a window if possible, and use a brightly colored article of clothing to signal for assistance.

FOLLOW THE PLAN

Follow your previously agreed-upon emergency plan.

Practice this plan so that everyone understands in advance how to get out safely. If you find yourself in a smoke-filled room or hallway, remember that warm air and smoke rise. Crawl beneath the smoke level. When possible, close all doors behind you. This will help contain the fire

and smoke. Get to your designated meeting point outside and well away from the home as quickly as possible. It may be necessary to "stop, drop and roll" if clothing catches on fire. Do a headcount before calling 911 so you can alert firefighters if someone can't get out of the home.

Staying Travel Safe

Travel can be interesting and relaxing, but remain aware of the fire hazards in unfamiliar places.

Hotels can be places of great luxury – and great danger. Thousands of fires break out annually in hotels in the U.S., leading to hundreds of injuries, more than \$100 million in property damages and even death. Most of these fires originate in kitchen areas, but most of the fire-related deaths happen in guestrooms. The vast majority are linked to smoking, which led to bans of indoor smoking at many – but not all – properties.

The federal government compiles a comprehensive list of complaints about hotels, which can be accessed at apps.usfa.fema.gov/hotel. Properties are evaluated based on a set of guidelines that includes having at least one hard-wired smoke alarm in every guestroom and an automatic sprinkler system in each room for buildings that are four stories tall or higher.

PREPARING FOR THE WORST

If you're planning on traveling soon, consider implementing these best practices when entering your guestroom: Review fire safety information located inside. It's typically found on the back of the entry door or in close



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proximity. Pre-plan your escape route by identifying the two exits nearest to your hotel room. Verify that nearby fire exit doors are functional and unlocked. If you encounter locked doors, promptly report this to management.

Identify the closest fire alarm and familiarize yourself

with its operating instructions. Keep your key card and a smartphone with a flashlight within reach of the bed since you'll need both. Count the number of doors between your room and the nearest exit to help with navigating the hallways in a low-visibility situation.

IF A FIRE BREAKS OUT

In the event of a fire at the property, your priority should be to immediately evacuate. Begin exiting as soon as an alarm sounds. Close doors behind you and use the stairs. If smoke obscures your path, crawl under the smoke to reach the exit. Should you find

yourself unable to escape, begin by sealing the doorway crack with wet towels. Turn off all fans and air conditioning units. Contact the fire department and provide them with your exact location. Remain at a window, signaling for help with a flashlight or a light-colored towel, clothing or bedding.