

Fire Prevention

GUIDE





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Smoke Detectors and Hearing Loss

Equipping your home with functioning smoke alarms can save your life. However, if you or a loved one is deaf or hard of hearing, the usefulness of the loud warning can be limited. To ensure everyone in the home is alerted of trouble in time to follow an escape plan, turn to these specialty devices.

LOCATIONS

The National Fire Protection Association suggests home fires spread much more rapidly in today's structures thanks to materials used in furnishings. They urge you to have several smoke alarms throughout your home, here are where they are most important:

- Install an alarm inside and out-

side each sleeping area on every level of the home. Don't forget the basement.

- For levels without bedrooms, place a device in the living room or stairway to the upper level.
- Mount smoke detectors at least 10 feet from a cooking appliance to lessen chances of a false alarms while cooking.

BENEFITS FOR THE HEARING IMPAIRED

Consider these tips from the NFPA regarding which smoke detector will benefit you or a loved one the most. For those who suffer from mild to severe-hearing loss, special alarms will emit a low-pitched sound which is easily recognized. Most of these devices are activated by the sound of

a traditional detector.

If you know someone who has suffered from total hearing loss, recommend them to use an alarm which displays a bright strobe.

You also might choose to use vibration appliances such as a pillow or bed shaker which will turn on from the sound of another emergency device in the home.

Smoke Inhalation

During a structure fire, Americans are more at risk of dying due to smoke inhalation than from burns. Its effect can quickly incapacitate someone. The American Red Cross warns that if a fire starts in your home, you may have as little as two minutes to escape. Get your entire family involved and develop and perform a plan to leave the home in case of fire.

WHY IT'S DANGEROUS

As a fire burns, it consumes available oxygen and creates toxic gases. The National Fire Protection Association reports smoke from house fires can be made up of these dangerous components.

- **Vapors:** These toxic droplets become poisonous when inhaled or absorbed through the skin.

- **Toxic gas:** Carbon monoxide is the most common gas found during fires. Others include hydrogen cyanide, which occurs when plastic or PVC is burned, and phosgene, which develops when materials like vinyl are incinerated.

- **Particles:** Tiny substances can be small enough to attack your respiratory system and become lodged in the lungs. Some can be toxic.

RISKS OF LOW OXYGEN

Smoke and flames aren't the only elements to fear during a fire. When burning, the heat will consume oxygen or replace it with other dangerous fumes. Understand how your level of functionality can be altered as our percentages of oxygen levels change, per the NFPA.

- **21 percent:** Typical outdoor air.

- **17 percent:** Impaired judgment and coordination.

- **12 percent:** Headache, dizziness or fatigue.



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- **9 percent:** Unconsciousness.

- **6 percent:** Respiratory arrest, cardiac arrest or death.

Heat is another hazard to our respiratory systems. If gases become overheated, a single breath can be fatal.

STAY LOW

During an escape, it's crucial to stay low when smoke is present. Since smoke natural-

ly rises, crawling underneath can help avoid inhalation. Stay low and get to your safe space at the first sign of a fire.

Recognize Hazards at Home

In 2016, more than 1.3 million fires were reported by emergency departments. These events caused about 3,390 civilian deaths. According to the National Fire Protection Association, 2016 claimed the highest number of lives in fire-related fatalities since 2008.

Nearly 500,000 of the 2016 incidents were deemed as structure fires, either residential and nonresidential. The majority of these, 78 percent, were associated to residential structures, most occurring in one- and two-family homes.

Many of these incidents could have been avoided by recognizing hazards and following prevention methods. Learn the areas of your home which are most likely to introduce a threat. Some can be corrected easily, while others will require a professional.

IN THE KITCHEN

The American Red Cross says the kitchen is the most common place for a fire. Stovetops are usually blamed more than the oven. Here are a few fire hazards you may overlook and tips to be prepared.

- Curtains, towels or paper-towel dispensers may be too close to burners.

- Your kitchen should always contain an easily accessible fire extinguisher. Don't forget to inspect it periodically.

- In the event of a grease fire, never use water to extinguish it. Instead, put a lid over the pan to suffocate the flame.

INSPECT APPLIANCES

The most critical appliance to inspect is your clothes dryer. According to the United States



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Fire Association, this household item is responsible for about 2,900 fire reports each year. Thirty-four percent of these incidents could have been avoided by properly cleaning the lint trap and ensuring the exhaust duct is

unrestricted.

Other appliances should be inspected for wear and tear to their power cords and improper operation which may lead to stress. If you fear your appliances are becoming a fire hazard, always call a professional;

a replacement may be required.

ELECTRICAL SYSTEM

This system can be more difficult to inspect for hazards without expert help. There is likely a maze of electrical wires

strung throughout your walls and one defect could result in disaster. Some things you can do to limit the risk: use the proper wattage in light bulbs for lamps and fixtures and understand your breaker box to avoid overloading.

Protect a Vacant Building

From 2011 to 2015, fire departments in the United States rushed to an estimated 30,200 fires in vacant structures each year. The National Fire Protection Association reports 50 percent of these incidents were set on purpose, accounting for 30 percent of all intentionally set structure fires.

One way you can protect your community is to report any suspicious behavior near vacant buildings. The Federal Emergency Management Agency suggests unmaintained properties are often used for illicit activities or as a shelter for the homeless.

HOW THEY START

Data from FEMA tells us, after intentional actions, the following top-three causes of fire in a vacant structure are open flames, unintentional careless actions and electrical malfunctions. Almost half, 44 percent, began from unknown causes.

THE DANGERS FOR FIREFIGHTERS

The risks involved in extinguishing a vacant structure are more heightened as first responders aren't sure of the integrity of the building. Unmaintained properties can suffer from serious hazards due to missing or degraded flooring and damaged staircases. If people have turned to the vacant property for temporary shelter, a firefighter will have no way to know how many people may be inside. The search and rescue operations become even more dangerous.

When a building is truly vacated, it is likely the fire will



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have ample time to develop, as it may not be noticed until it's out of control. When this is the case, first responders must manage to contain it to the affected building without

allowing it to spread through a neighborhood.

WHAT YOU CAN DO

If you are the owner or oversee a vacant building, you

owe it to your community to ensure it is secure.

Unoccupied and unsecured structures accounted for over \$200 million in property loss from 2013 to 2015, according

to FEMA. To keep those with bad intentions out of your property, ensure the doors are locked, windows are secure and give law enforcement a heads up before you vacate.

Holiday Cooking Safety

Holidays are a wonderful reason for loved ones to gather over a home-cooked meal. Unfortunately, these events invite the threat of fire. Whether you are cooking inside or outdoors, it's important to do so with care.

The Federal Emergency Management Agency urges Americans to practice safety measures when preparing holiday feasts.

INDOOR SAFETY

When cooking inside, it is crucial to be aware of your surroundings. FEMA urges us to keep anything that can catch fire away from the stove top. Preparing large meals for the holidays invites chances of potholders, oven mitts, food packaging or paper towels to be lit when too close to burners. Never leave the room while you are cooking on the stove.

If you must bring in additional cooking appliances to complete your feast, never plug them in with extension cords. Most are not rated to run microwaves and other cooking appliances and can overload a circuit, resulting in fire.

Consider hiring an electrician to install more outlets in your kitchen if you regularly need more. The task is typically simple and affordable, but should be trusted to a professional.

OUTDOOR SAFETY

A growing trend in America is serving deep-fried turkey for a Thanksgiving feast. Fryers are one of the common reasons fire departments are called on



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Thanksgiving. If you plan to prepare your meal using this type of equipment, consider these safety tips from the United States Fire

Administration.

- Make sure your turkey is completely thawed, even a partially frozen bird causes hot oil to splatter.

- Monitor the temperature of your fryer's oil to prevent overheating and risk of fire.
- Only use your equipment on a level and sturdy surface

as they can easily tip over. Instill a three-foot rule and make sure children and pets keep a distance from your cooking area.

Join an Initiative

You can show your support for fire prevention by joining an initiative and educating those around you. Teach children the importance of contributing to a cause which keeps their community safe and encourage your loved ones to join you.

The United States has many programs in place to urge Americans to take fire prevention seriously. The National Fire Protection Association reports a U.S. fire department responds to a fire every 24 seconds. Here are some other statistics from 2016 which show you the importance of doing your part in prevention.

- Public departments responded to 1,342,000 incidents.
- 3,390 civilians lost their lives in fires; 2,735 of these fatalities occurred at home.
- An estimated \$10.4 billion in property damage occurred.
- A single wildfire in Tennessee was responsible for \$911 million in property damage.

Fires can occur in a split second, leaving us with only a few minutes to react. Pledge your allegiance to one of these helpful initiatives to educate yourself and those around you about the importance of fire prevention.

FIRE IS EVERYONE'S FIGHT

This program was created to reduce fire injuries, deaths and property loss in the home by changing the way Americans think about fire. They encourage the public and businesses to join their cause and spread the word. If you want to join the fight, you can call 301-447-



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1024 to get started.

Once you become affiliated, you have access to informative brochures and flyers. Consider holding a benefit and invite your community to instill the importance of the program. Think of ways to raise funds for your local fire department like raffles, silent auctions or dona-

tions.

When your neighborhood realizes that Fire is Everyone's Fight, a community will work together to keep each other and their property safe.

NATIONAL FIRE PREVENTION WEEK

The roots of this national

initiative can be traced back to the Great Chicago Fire in 1871. The NFPA states the fire took the lives of more than 250 people, left 100,000 homeless and destroyed more than 17,400 buildings and 2,000 acres.

This incident changed the way America looked at fire and

encouraged regulators to create the first Fire Prevention Week in 1925. This year, Fire Prevention Week is Oct. 7-13. This year's campaign is "Look. Listen. Learn. Be Aware. Fire can happen anywhere." Encourage those around you to be proactive in the fight for a fire-free America.

Protect Your Small Business

According to the Small Business Administration, the more than 30 million small businesses in the United States employ roughly 58 million Americans. If you are the owner or oversee a company which makes up the nation's backbone, fire safety should be at the forefront of your mind.

While there are no regulations stating every business must have a fire evacuation plan in place, it's crucial to protecting your business and the employees who make it successful. The Occupational Safety and Health Administration suggests employers create an emergency action plan which explains exactly what is expected during an incident.

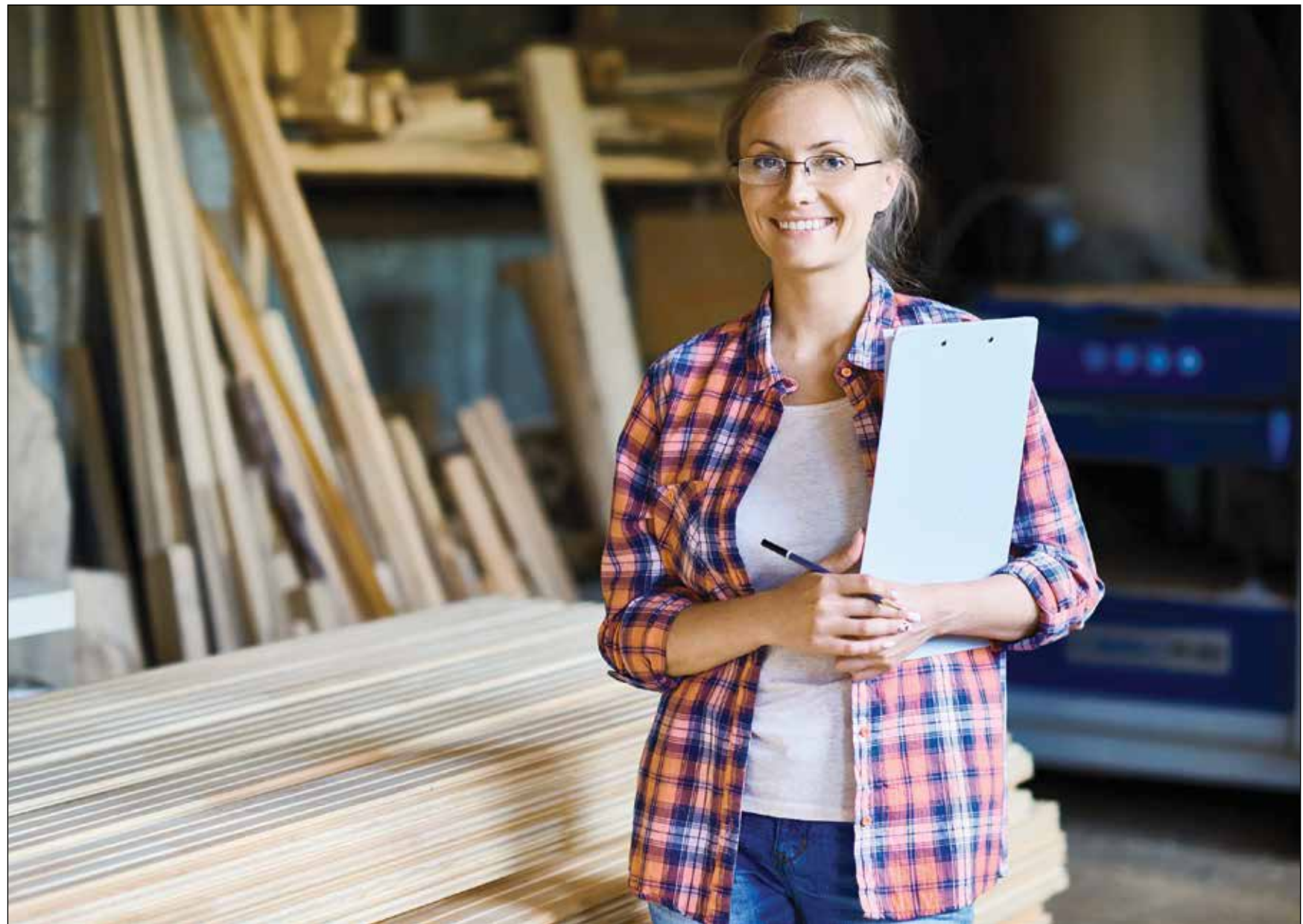
These are a few topics they state must be addressed:

- Means of reporting fires and other emergencies.
- Procedures for employees who operate critical plant operations before they evacuate.
- Evacuation route and escape plan.
- A process of ensuring all employees are accounted for and the structure is unoccupied.

Creating and practicing a fire plan before an emergency occurs is a great way to boost the safety of employees. When a building is vacated, first responders can focus on eliminating the fire before it causes widespread damage.

SMALL BUSINESS TAX INCENTIVE

Unfortunately, it sometimes takes a tragedy before lawmakers determine regulations should be in place. The sprinkler incentive legislation was developed due to a tragedy in Rhode Island in 2003. A fire at a nightclub took the lives of 100 people. It is thought a sprinkler system could have slowed the heat, flames and smoke, giving people more time to escape.



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Today, the United States Fire Administration encourages small businesses to install fire sprinklers and offers a tax reform through the Tax Cuts and Jobs Act. Owners can deduct the cost of installing these important systems on their federal taxes; installation can be expensed up

to one-million dollars for each year of expense.

Effective sprinklers are important to maintaining a fire until responders arrive. Not only will your staff have extra time to escape, the amount of damage can be greatly reduced as the system will work to extinguish flames.

PREVENTATIVE MEASURES

It is the responsibility of everyone in your business to report any fire hazards they recognize. Encourage your staff to be proactive and monitor the integrity of power cords, unplug machines at the end of a work day and replace old appliances.