

# **SAFETY**

# Smoke Alarms

## Protect Yourself and Your Family Today!

In the event of a fire, properly installed and maintained smoke alarms will provide an early warning alarm to your household. This alarm could save your own life and those of your loved ones by providing the chance to escape.

### Why Should My Home Have Smoke Alarms?

In the event of a fire, a smoke alarm can save your life and those of your loved ones. They are a very important means of preventing house and apartment fire fatalities by providing an early warning signal -- so you and your family can escape. Smoke alarms are one of the best safety devices you can buy and install to protect yourself, your family, and your home.

### What Types of Smoke Alarms Are Available?

There are many different brands of smoke alarms available on the market but they fall under two basic types: ionization and photoelectric.

**Ionization alarms** sound more quickly when a flaming, fast moving fire occurs. **Photoelectric alarms** are quicker at sensing smoldering, smoky fires. There are also combination smoke alarms that combine ionization and photoelectric into one unit, called **dual sensor smoke alarms**.

Because both ionization and photoelectric smoke alarms are better at detecting distinctly different yet potentially fatal fires, and because homeowners cannot predict what type of fire might start in a home, the USFA recommends the installation of both ionization and photoelectric or dual sensor smoke alarms.

In addition to the basic types of alarms, there are alarms made to meet the needs of people with hearing disabilities. These alarms may use strobe lights that flash and/or vibrate to assist in alerting those who are unable to hear standard smoke alarms when they sound.

### Okay, Where Do I Put Them?

Install smoke alarms on every level of your home, including the basement. Many fatal fires begin late at night or in the early morning. For extra safety, install smoke alarms both inside and outside sleeping areas. Since smoke and many deadly gases rise, installing your smoke alarms at the proper level will provide you with the earliest warning possible. Always follow the manufacturer's installation instructions.

### Where Would I Get Smoke Alarms?

Many hardware, home supply, or general merchandise stores carry smoke alarms. If you are unsure where to buy one in your community, call your local fire department (on a non emergency telephone number) and they will provide you with some suggestions. Some fire departments offer smoke alarms for little or no cost.

### Are Smoke Alarms Hard to Install?

If your smoke alarms are hard wired, that is wired into the electrical system, you will need to have a qualified electrician do the initial installation or install

replacements. For battery powered smoke alarms, all you will need for installation is a screw driver. Some brands are self adhesive and will easily stick to the wall or ceiling where they are placed. For all smoke alarm installations, be sure you follow the manufacturer's instructions because there are differences between the various brands. If you are uncomfortable standing on a ladder, ask a relative or friend for help. Some fire departments will install a smoke alarm in your home for you. Call your local fire department (on a non-emergency telephone number) if you have problems installing a smoke alarm.

### **Helpful Tip**

Pick a holiday or your birthday and replace the batteries each year on that day.

If your smoke alarm starts making a "chirping" noise, replace the batteries and reset it.

### **How Do I Keep My Smoke Alarm Working?**

If you have a smoke alarm with batteries:

1. Smoke Alarms powered by long-lasting batteries are designed to replace the entire unit according to manufacturer's instructions.
2. In standard type battery powered smoke alarms, the batteries need to be replaced at least once per year and the whole unit should be replaced every 8-10 years.
3. In hard-wired, battery back up smoke alarms, the batteries need to be checked monthly, and replaced at least once per year. The entire unit should be replaced every 8-10 years.

### **What if the Alarm Goes Off While I'm Cooking?**

Then it's doing its job. Do not disable your smoke alarm if it alarms due to cooking or other non-fire causes. You may not remember to put the batteries back in the alarm after cooking. Instead clear the air by waving a towel near the alarm, leaving the batteries in place. The alarm may need to be moved to a new location. Some of the newer models have a "hush" button that silences nuisance alarms.

### **How long will my Smoke Alarm Last?**

Most alarms installed today have a life span of about 8-10 years. After this time, the entire unit should be replaced. It is a good idea to write the date of purchase with a marker on the inside of your alarm so you will know when to replace it. Some of the newer alarms already have the purchase date written inside. In any event, always follow the manufacturer's instructions for replacement.

### **Anything Else I Should Know?**

Some smoke alarms are considered to be "hard-wired." This means they are connected to the household electrical system and may or may not have battery backup. It's important to test every smoke alarm monthly and replace the batteries with new ones at least once a year.

The Mt. Shasta City Fire Department would like to remind you of some important fire safety and prevention information.

- Plan and practice escape plans several times a year.
- Make sure your whole family knows when and how to call emergency telephone numbers.
- Obtain and learn how to use a fire extinguisher.
- Install carbon monoxide detectors.
- Consider installing residential fire sprinklers in your home.

Contact your local fire department on a non-emergency phone number if you need help or have questions about fire safety in your home.

## **Fire Extinguishers**

The use of a fire extinguisher in the hands of a trained adult can be a life and property saving tool. However, a majority of adults have not had fire extinguisher training and may not know how and when to use them. Fire extinguisher use requires a sound decision making process and training on their proper use and maintenance.

### **Should I Use a Fire Extinguisher?**

Consider the following three questions before purchasing or using a fire extinguisher to control a fire:

#### **1. What type of fire extinguisher is needed?**

Different types of fires require different types of extinguishers. For example, a grease fire and an electrical fire require the use of different extinguishing agents to be effective and safely put the fire out.

Basically, there are five different types of extinguishing agents. Most fire extinguishers display symbols to show the kind of fire on which they are to be used.

#### Types of Fire Extinguishers



Class A extinguishers put out fires in ordinary combustible materials such as cloth, wood, rubber, paper, and many plastics.





Class B extinguishers are used on fires involving flammable liquids, such as grease, gasoline, oil, and oil-based paints.



Class C extinguishers are suitable for use on fires involving appliances, tools, or other equipment that is electrically energized or plugged in.



Class D extinguishers are designed for use on flammable metals and are often specific for the type of metal in question. These are typically found only in factories working with these metals.



Class K fire extinguishers are intended for use on fires that involve vegetable oils, animal oils, or fats in cooking appliances. These extinguishers are generally found in commercial kitchens, such as those found in restaurants, cafeterias, and caterers. Class K extinguishers are now finding their way into the residential market for use in kitchens.



There are also multi-purpose fire extinguishers – such as those labeled "B-C" or "A-B-C" – that can be used on two or more of the above type fires.

## 2. Is the fire at a point where it might still be controlled by a fire extinguisher?

Portable fire extinguishers are valuable for immediate use on small fires. They contain a limited amount of extinguishing material and need to be properly used so that this material is not wasted. For example, when a pan initially catches fire, it may be safe to turn off the burner, place a lid on the pan, and use an extinguisher. By the time the fire has spread, however, these actions will not be adequate. **Only trained firefighters can safely extinguish such fires.**

Use a fire extinguisher only if:

- You have alerted other occupants and someone has called the fire department;
- The fire is small and contained to a single object, such as a wastebasket;
- You are safe from the toxic smoke produced by the fire;

- You have a means of escape identified and the fire is not between you and the escape route; and
- Your instincts tell you that it is safe to use an extinguisher.

If *all* of these conditions are not present, you should NOT try to use a fire extinguisher. Alert other occupants, leave the building following your [home escape plan](#), go to the agreed upon meeting place, and call the fire department from a cell phone or a neighbor's home.

### **3. Am I physically capable of using the extinguisher?**

Some people have physical limitations that might diminish or eliminate their ability to properly use a fire extinguisher. People with disabilities, older adults, or children may find that an extinguisher is too heavy to handle or it may be too difficult for them to exert the necessary pressure to operate the extinguisher.

## **Maintenance**

Fire extinguishers need to be regularly checked to ensure that:

- The extinguisher is not blocked by furniture, doorways, or any thing that might limit access in an emergency.
- The pressure is at the recommended level. Some extinguishers have gauges that indicate when the pressure is too high or too low.
- All parts are operable and not damaged or restricted in any way. Make sure hoses and nozzles are free of insects or debris. There should not be any signs of damage or abuse, such as dents or rust, on the extinguisher.
- The outside of the extinguisher is clean. Remove any oil or grease that might accumulate on the exterior.

### **Additionally:**

- Shake dry chemical extinguishers once a month to prevent the powder from settling or packing. Check the manufacturer's recommendations.
- Pressure test the extinguisher (a process called hydrostatic testing) after a number of years to ensure that the cylinder is safe to use. Find out from the owner's manual, the label, or the manufacturer when an extinguisher may need this type of testing.
- Immediately replace the extinguisher if it needs recharging or is damaged in any way.

## **Sound Decision Making, Training, Maintenance.**

All are required to safely control a fire with an extinguisher. For this reason, **MSFD recommends that only those trained in the proper use and maintenance of fire**

**extinguishers consider using them when appropriate.** Contact your local fire department for information on training in your area.

## **Carbon Monoxide**

Each year in America, carbon monoxide poisoning claims approximately 480 lives and sends another 15,200 people to hospital emergency rooms for treatment.<sup>1</sup> Mt. Shasta City Fire Department would like you to know that there are simple steps you can take to protect yourself from deadly carbon monoxide fumes. Please read and follow the safety tips contained in the fact sheets on this page.

### **Exposing an Invisible Killer: The Dangers of Carbon Monoxide**

Each year in America, unintentional carbon monoxide poisoning claims more than 500 lives and sends another 15,000 people to hospital emergency rooms for treatment.<sup>1</sup>

The Mt. Shasta City Fire Department and the National Association of Home Builders (NAHB) would like you to know that there are simple steps you can take to protect yourself from deadly carbon monoxide fumes.

### **Understanding the Risk**

What is carbon monoxide?

Carbon monoxide is an odorless, colorless and toxic gas. Because it is impossible to see, taste or smell the toxic fumes, CO can kill you before you are aware it is in your home. At lower levels of exposure, CO causes mild effects that are often mistaken for the flu. These symptoms include headaches, dizziness, disorientation, nausea and fatigue. The effects of CO exposure can vary greatly from person to person depending on age, overall health and the concentration and length of exposure.

Where does carbon monoxide come from?

CO gas can come from several sources: gas-fired appliances, charcoal grills, wood-burning furnaces or fireplaces and motor vehicles.

Who is at risk?

Everyone is at risk for CO poisoning. Medical experts believe that unborn babies, infants, children, senior citizens and people with heart or lung problems are at even greater risk for CO poisoning.

# What Actions Do I Take if My Carbon Monoxide Alarm Goes Off?

What you need to do if your carbon monoxide alarm goes off depends on whether anyone is feeling ill or not.

If no one is feeling ill:

1. Silence the alarm.
2. Turn off all appliances and sources of combustion (i.e. furnace and fireplace).
3. Ventilate the house with fresh air by opening doors and windows.
4. Call a qualified professional to investigate the source of the possible CO buildup.

If illness is a factor:

1. Evacuate all occupants immediately.
2. Determine how many occupants are ill and determine their symptoms.
3. Call your local emergency number and when relaying information to the dispatcher, include the number of people feeling ill.
4. Do not re-enter the home without the approval of a fire department representative.
5. Call a qualified professional to repair the source of the CO.

## Protect Yourself and Your Family from CO Poisoning

- Install at least one carbon monoxide alarm with an audible warning signal near the sleeping areas and outside individual bedrooms. Make sure the alarm has been evaluated by a nationally recognized laboratory, such as Underwriters Laboratories (UL). Carbon monoxide alarms measure levels of CO over time and are designed to sound an alarm before an average, healthy adult would experience symptoms. It is very possible that you may not be experiencing symptoms when you hear the alarm. This does not mean that CO is not present.
- Have a qualified professional check all fuel burning appliances, furnaces, venting and chimney systems at least once a year.
- Never use your range or oven to help heat your home and never use a charcoal grill or hibachi in your home or garage.
- Never keep a car running in a garage. Even if the garage doors are open, normal circulation will not provide enough fresh air to reliably prevent a dangerous buildup of CO.
- When purchasing an existing home, have a qualified technician evaluate the integrity of the heating and cooking systems, as well as the sealed spaces between the garage and house. The presence of a carbon monoxide alarm in your home can save your life in the event of CO buildup.

## **Portable Generator Hazards**

Portable generators are useful when temporary or remote electric power is needed, but they can be hazardous. The primary hazards to avoid when using them are carbon monoxide poisoning, electric shock or electrocution, and fire.

The Mt. Shasta Fire Department and the United States Fire Administration (USFA) would like you to know that there are simple steps you can take to prevent the loss of life and property resulting from improper use of portable generators.

### **To Avoid Carbon Monoxide Hazards:**

- Always use generators outdoors, away from doors, windows and vents.
- NEVER use generators in homes, garages, basements, crawl spaces, or other enclosed or partially enclosed areas, even with ventilation.
- Follow manufacturer's instructions.
- Install battery-operated or plug-in (with battery backup) carbon monoxide (CO) alarms in your home, following manufacturer's instructions.
- Test CO alarms often and replace batteries when needed.

### **To Avoid Electrical Hazards:**

- Keep the generator dry. Operate on a dry surface under an open, canopy- like structure.
- Dry your hands before touching the generator.
- Plug appliances directly into generator or use a heavy-duty outdoor- rated extension cord. Make sure entire extension cord is free of cuts or tears and the plug has all 3 prongs, especially a grounding pin.
- NEVER plug the generator into a wall outlet. This practice, known as back feeding, can cause an electrocution risk to utility workers and others served by the same utility transformer.
- If necessary to connect generator to house wiring to power appliances, have a qualified electrician install appropriate equipment. Or, your utility company may be able to install an appropriate transfer switch

### **To Avoid Fire Hazards:**

- Before refueling the generator, turn it off and let it cool. Fuel spilled on hot engine parts could ignite.
- Always store fuel outside of living areas in properly labeled, non-glass containers.
- Store fuel away from any fuel-burning appliance.

*Information for this fact sheet was provided by the Consumer Product Safety Commission.*

## **Escape Planning**

More than 4,000 Americans die each year in fires, and approximately 20,000 are injured. Deaths resulting from failed emergency escapes are particularly avoidable.

The Mt. Shasta City Fire Department believes that having a sound escape plan will greatly reduce fire deaths and protect you and your family's safety if a fire occurs.

## **Have a Sound Fire Escape Plan**

In the event of a fire, remember - time is the biggest enemy and every second counts! Escape plans help you get out of your home quickly. In less than 30 seconds a small flame can get completely out of control and turn into a major fire. It only takes minutes for a house to fill with thick black smoke and become engulfed in flames.

### **Special Considerations**

#### **Practice Escaping From Every Room In The Home**

Practice escape plans every month. The best plans have two ways to get out of each room. If the primary way is blocked by fire or smoke, you will need a second way out. A secondary route might be a window onto an adjacent roof or a collapsible ladder for escape from upper story windows. Purchase only collapsible ladders evaluated by a nationally recognized laboratory such as Underwriters Laboratory (UL). Make sure that windows are not stuck, screens can be taken out quickly and that security bars can be properly opened. Also, practice feeling your way out of the house in the dark or with your eyes closed.

#### **Security Bars Require Special Precautions**

Security bars may help to keep your family safe from intruders, but they can also trap you in a deadly fire! Windows and doors with security bars must have quick release devices to allow them to be opened immediately in an emergency. Make sure everyone in the family understands and practices how to properly operate and open locked or barred doors and windows.

#### **Immediately Leave The Home**

When a fire occurs, do not waste any time saving property. Take the safest exit route, but if you must escape through smoke, remember to crawl low, under the smoke and keep your mouth covered. The smoke contains toxic gases which can disorient you or, at worst, overcome you.

#### **Never Open Doors That Are Hot To The Touch**

When you come to a closed door, use the back of your hand to feel the top of the door, the doorknob, and the crack between the door and door frame to make sure that fire is not on the other side. If it feels hot, use your secondary escape route. Even if the door feels cool, open it carefully. Brace your shoulder against the door and open it slowly. If heat and smoke come in, slam the door and make sure it is securely closed, then use your alternate escape route.

#### **Designate A Meeting Place Outside and Take Attendance**

Designate a meeting location away from the home, but not necessarily across the street. For example, meet under a specific tree or at the end of the driveway or front sidewalk to make sure everyone has gotten out safely and no one will be hurt looking for someone who is already safe. Designate one person to go to a neighbor's home to phone the fire department.

#### Once Out, Stay Out

Remember to escape first, then notify the fire department using the 911 system or proper local emergency number in your area. Never go back into a burning building for any reason. Teach children not to hide from firefighters. If someone is missing, tell the firefighters. They are equipped to perform rescues safely.

Finally, having working smoke alarms installed on every level of your home dramatically increases your chances of survival. Smoke alarm batteries need to be tested every month and changed with new ones at least once a year. Also, consider replacing the entire smoke alarm every ten years, or as the manufacturer guidelines recommend.