Smoke Alarms

If you have a fire, smoke alarms can cut nearly in half your risk of dying in a fire. Smoke alarms sense abnormal amounts of smoke or invisible combustion gases in the air. They can detect both smoldering and flaming fires. National Fire Protection Association 72, the National Fire Alarm Code, now requires in new homes hard-wired, interconnected smoke alarms with battery back-up on every level of the home, outside each sleeping area, and inside each bedroom. It also requires that alarms be wired together so that if one sounds, they all sound.

- If smoke alarms are not already in place, at a minimum install them on every level of the home and outside each sleeping area. If a fire occurs inside a bedroom, dangerous gases can cause heavier sleep. Smoke alarms inside bedrooms will be more likely to wake you.
- To prevent nuisance alarms, vacuum cobwebs and dust from your smoke alarms monthly. Never disable a smoke alarm, even if you experience nuisance alarms while cooking or showering. Clean the smoke alarm following the manufacturer’s instructions and, if possible, relocate it away from the kitchen or bathroom. If nuisance alarms are a persistent problem, look for a different type of smoke alarm.
- Use the test button to test your smoke alarms monthly. The test feature tests all electronic functions and is safer than testing with a controlled fire (matches, lighters, cigarettes). If the smoke alarm manufacturer’s instructions permit the use of an aerosol smoke product for testing the smoke alarm, and you prefer that method, choose one that has been listed (examined and tested to appropriate product safety standards) by a third-party product testing laboratory, and use it in accordance with the product instructions.
- If you have battery-powered smoke alarms, replace the batteries at least once a year. (Replace the batteries in your carbon monoxide (CO) alarms at the same time you replace your smoke alarm batteries.) Some agencies recommend that you replace batteries when the time changes from standard to daylight savings each spring and then back again in the fall. "Change your clock, change your batteries." Replacing batteries this often certainly will not hurt; however, data show that fresh batteries will last at least a year, so more frequent replacement is not necessary unless the smoke alarm begins to chirp. Also, Arizona, Hawaii, the eastern portion of Indiana, Puerto Rico, American Samoa, and Guam do not use daylight savings time. Pick an easy-to-remember anniversary, such as your birthday or a national holiday, as the day to change the batteries each year.
- Replace your smoke alarms every 10 years. This is the recommendation of the National Fire Protection Association and the U.S. Consumer Product Safety Commission. Smoke alarms become less sensitive over time.
- Be sure to install smoke alarms in areas where pets are and in other buildings that house animals.

(Continued on page 2)
Carbon Monoxide Alarms

Every home should have properly installed and maintained carbon monoxide (CO) alarms. CO alarms can help detect CO, a colorless, odorless gas produced by burning any fuel. Exposure to high levels of CO can cause death. The initial symptoms of CO poisoning are similar to the flu and include dizziness, fatigue, headache, nausea, and irregular breathing.

- Install battery-operated CO alarms or plug-in CO alarms with battery back-up in your home, according to the manufacturer’s installation instructions. CO alarms should be certified to the requirements of the latest safety standards for CO alarms (UL 2034, IAS 6-96, or CSA 6.19.01). It is especially important to have a CO alarm near sleeping areas.
- Test and maintain your CO alarms according to the manufacturer’s instructions.

Because of the risk of CO poisoning, never operate unvented fuel-burning appliances in any closed room or where people are sleeping. CO poisoning from fuel-burning appliances kills people in the United States each year.

CO can leak from faulty furnaces or fuel-fired heaters or can be trapped inside a home by a blocked chimney or flue. Burning charcoal inside a home produces CO. Running an automobile engine in an attached garage can cause CO to enter a home and so can running a portable generator if it is near windows, doors, or vents, even if it is outdoors.

Never use gas appliances such as ranges, ovens, or clothes dryers for heating your home. Never use a portable generator in an enclosed or partially enclosed space, including in your home or in a garage, basement, crawl space, or other partially enclosed area, even with ventilation. Locate a generator outdoors and away from doors, windows, and vents that could allow CO to come indoors. Generators can produce high levels of deadly CO very quickly.

Fire Extinguishers

- Consider having one or more working fire extinguishers in your home. An extinguisher rated “A-B-C” is recommended for home use. Many fire extinguisher models are designed for one-time use and cannot be recharged.
- Get training from the fire department or a fire extinguisher manufacturer on how to use your fire extinguisher. Fire extinguishers from various manufacturers operate in different ways. Unless you know how to use your extinguisher, you may not be able to use it quickly.
effectively, or it could place you in greater danger. There is no time to read directions during an emergency. Only adults should handle and use extinguishers.

- Install extinguishers high on the wall, near an exit, and away from heat sources. Extinguishers should be easily accessible to adults trained to use them, and kept away from children's curious hands. Heat may make the contents less effective or cause the extinguisher to lose its charge more quickly.

- If you try to use a fire extinguisher on a fire and the fire does not immediately die down, drop the extinguisher and get out. Most portable extinguishers empty in 8 to 10 seconds. After some residential fires, people have been found dead with fire extinguishers near them or in their arms.

- Look at your fire extinguisher to ensure that it is properly charged. Fire extinguishers will not work properly if they are not properly charged. Use the gauge or test button to check that there is proper pressure. Follow the manufacturer's instructions for replacing or recharging fire extinguishers. If the unit is low on pressure, damaged, or corroded, replace it or have it professionally serviced.

- Before you begin to fight a fire with a fire extinguisher, be sure that:
  - Everyone has left or is leaving the home.
  - The fire department has been called.
  - The fire is small and not spreading.
  - Your back is to an exit you can use quickly.
  - There is not much smoke in the room.

Arc-Fault Circuit Interrupters (AFCIs)

Consider installing AFCIs in your home’s electrical panel box. AFCIs (arc-fault circuit interrupters) are new devices now required by the National Electrical Code® for bedrooms in new construction. They detect abnormal arcing in a circuit (which can cause overheating and lead to an electrical fire) and de-energize the circuit when an arc fault is detected. (AFCIs should not be confused with ground-fault circuit interrupters—GFCIs—which address shock, not fire, hazards.)

Home Fire Sprinkler Systems

- Consider installing an automatic fire sprinkler system in your home. Although smoke alarms are essential in every household, they are designed to detect, not control, a fire. Home fire sprinklers complement the alarms' work, providing a way to fight flames immediately. In less time than it would take the fire department to arrive on the scene, home fire sprinklers can prevent a fire from spreading and even extinguish a fire. A
sprinkler system can decrease the chance that deadly smoke and gases will reach your family. In addition, sprinkler systems can put out fire when you are away from home, and if they are connected to an alarm system, may notify the fire department in your absence.

- To ensure sprinkler system reliability, be sure to use a qualified installer who adheres to National Fire Protection Association (NFPA) codes and standards and local fire safety regulations.

"Wind Safe" Room

A "wind safe" room is a reinforced area of a home designed to withstand severe windstorms. While basements offer some protection from damaging winds, the level of protection can be increased greatly by building a reinforced shelter area in a basement, or constructing a shelter in an above-ground room such as an interior closet or a small study room.

An effective "wind safe" room must be strong enough to survive extreme wind speeds and the impact of airborne debris, sufficiently affordable to appeal to homeowners, and accessible quickly in the event a severe storm approaches. "Wind safe" rooms are easiest to install when a home is being built; however, they can also be added to many existing homes. A variety of options exists for homes with basements, homes built on a "slab-on-grade" foundation, and homes with a "crawlspace" foundation.

Typical costs range from $2,000 for a simple "lean-to" shelter in a new-home basement, to $6,000 or more for an above-ground, steel-sheathing shelter.

For more information, see the following websites:

The Institute for Business and Home Safety:
http://www.ibhs.org

The Federal Emergency Management Agency (FEMA):
http://www.fema.gov/plan/prevent/saferoom/index.shtm

Portable Generators

Portable generators are useful when temporary or remote electric power is needed, but they also can be hazardous. The primary hazards to avoid when using a generator are carbon
monoxide (CO) poisoning from the toxic engine exhaust, electric shock or electrocution, and fire. Every year, people die in incidents related to portable generator use.

Carbon Monoxide Hazards:

Never use a portable generator in an enclosed or partially enclosed space. Portable generators can produce high levels of CO very quickly. When you use a portable generator, remember that you cannot smell or see CO. Even if you cannot smell exhaust fumes, you may still be exposed to CO. If you start to feel sick, dizzy, or weak while using a portable generator, get to fresh air right away. Alert others in the home or in the vicinity to get to fresh air. Do not delay. The CO from portable generators can rapidly lead to full incapacitation and death.

If you experience serious symptoms, get medical attention immediately. Inform medical staff that CO poisoning is suspected. If you experienced symptoms while indoors, have someone call the fire department to determine when it is safe to reenter the building.

Follow these safety tips to protect against CO poisoning:

- Never use a portable generator indoors, including in homes, garages, basements, crawl spaces, and other enclosed or partially enclosed areas, even with ventilation. Opening doors and windows or using fans will not prevent CO buildup.
- Follow the instructions that come with your portable generator. Locate the unit outdoors and away from doors, windows, and vents that could allow CO to come indoors.

Electrical Hazards:

Follow these tips to protect against electrical hazards:

- Keep the portable generator dry and do not use it where it could get wet by rain or snow. To protect it from moisture, operate it on a dry surface under an open, canopy-like structure. Dry your hands if they are wet before touching the generator.
- Plug appliances directly into the portable generator. Or, use a heavy-duty, outdoor-rated extension cord that is rated (in watts or amps) at least equal to the sum of the connected appliance loads. Check that the entire cord is free of cuts or tears and that the plug has all three prongs, especially a grounding pin.
- Never try to power the home wiring by plugging the portable generator into a wall out-
let, a practice known as “backfeeding” This is an extremely dangerous practice that presents an electrocution risk to utility workers and neighbors served by the same utility transformer. It also bypasses some of the built-in household circuit protection devices.

- If you must connect a portable generator to the home wiring to power appliances, have a qualified electrician install the appropriate equipment in accordance with local electrical codes. Or, check with your utility company to see if it can install an appropriate power transfer switch.

- For power outages, permanently installed stationary generators are better suited for providing backup power to a home. Even a properly connected portable generator can become overloaded. This may result in overheating or stressing the generator components, possibly leading to a generator failure.

Fire Hazards:

Follow these tips to protect against fire hazards:

- Never store fuel for your portable generator in the home. Gasoline, propane, kerosene, and other flammable liquids should be stored outside of living areas in properly labeled, non-glass, safety containers. Do not store them near a fuel-burning appliance, such as a natural gas water heater in a garage. If the fuel is spilled or the container is not sealed properly, invisible vapors from the fuel can travel along the ground and can be ignited by the appliance’s pilot light or by arcs from electric switches in the appliance.

- Before refueling a portable generator, turn it off and let it cool down. Gasoline spilled on hot engine parts could ignite.