

Smoke Detectors

Smoke Detectors Save Lives

The majority of fatal home fires happen at night when people are asleep. Contrary to popular belief, the smell of smoke may not wake a sleeping person. The poisonous gases and smoke produced by a fire can numb the senses and put you into a deeper sleep.

Inexpensive household smoke detectors sound an alarm, alerting you to a fire. By giving you time to escape, smoke detectors cut your risk of dying in a home fire nearly in half. Smoke detectors save so many lives that most states have laws requiring them in private homes.

Choosing A Detector

Be sure that the smoke detectors you buy carry the mark of an independent testing laboratory.

Several types of detectors are available. Some run on batteries; others run on household current. Some detect smoke using an "ionization" sensor; others use a "photoelectric" detection system. All approved smoke detectors, regardless of type, will offer adequate protection provided they are installed and maintained properly.

Is One Enough?

Everyone should have a smoke detector outside each sleeping area and on every level of the home, including the basement. The National Alarm Code, developed by the National Fire Protection Association (NFPA), requires a smoke detector in each sleeping room for new construction. On floors without bedrooms, detectors should be installed in or near living areas, such as dens, living rooms, or family rooms.

Be sure everyone sleeping in your home can hear your smoke detectors' alarms. If any residents are hearing impaired or sleep with bedroom doors closed, install additional detectors inside sleeping areas. There are special smoke detectors for the hearing impaired; these flash a light in addition to sounding an audible alarm.

For extra protection, the NFPA suggests installing detectors in dining rooms, furnace rooms, utility rooms, and hallways. Smoke detectors are not recommended for kitchens, bathrooms, or garages - where cooking fumes, steam, or exhaust fumes could set off false alarms - or for attics and other unheated spaces where humidity and temperature changes might affect a detector's operation.

Where To Install

Because smoke rises, mount detectors high on a wall or on the ceiling. Wall-mounted units should be mounted so that the top of the detector is 4 to 12 inches (10 to 30 centimeters) from the ceiling. A ceiling-mounted detector should be attached at least 4 inches (10 centimeters) from the nearest wall. In a room with a pitched ceiling, mount the detector at or near the ceiling's highest point.

In stairways with no doors at the top or bottom, position smoke detectors anywhere in the path of smoke moving up the stairs. Always position smoke detectors at the bottom of closed stairways, such as those leading from the basement. Dead air trapped near the door at the top of a stairway could prevent smoke from reaching a detector located at the top.

Installation

Most battery-powered detectors and detectors that plug into wall outlets can be installed using only a drill and a screwdriver by following the manufacturer's instructions. Plug-in detectors must have restraining devices so they cannot be unplugged by accident. Detectors can also be hard-wired into a building's electrical system. Hard-wired detectors should be installed by a qualified electrician. Never connect a smoke detector to a circuit that can be turned off from a wall switch.

False Alarms

Cooking vapors and steam sometimes set off a smoke detector. To correct this, try moving the detector away from the kitchen or bathroom, or install an exhaust fan. Cleaning your detector regularly, according to manufacturer's instructions, may also help.

Maintenance

- ◆ Remember: only a functioning smoke detector can protect you. Never disable a detector by "borrowing" its battery for another use.
- ◆ Follow manufacturer's instructions, test all your smoke detectors monthly, and install new batteries at least one a year - when you set the clock back in the fall, for example, or when a detector is "chirping" to indicate that the battery is low.
- ◆ Clean your smoke detectors using a vacuum cleaner without removing the detector's cover.
- ◆ Smoke detectors don't last forever. Replace any smoke detector that is more than 10 years old.

Plan And Practice

- ◆ Make sure everyone in your household is familiar with the sound of the detector's alarm.
- ◆ Plan escape routes. Know at least two ways out of each room. Agree on a meeting place outside your home where all residents will gather after they escape. Practice your escape plan at least twice a year.
- ◆ Remove obstructions from doors and windows needed for escape.
- ◆ Make sure everyone in the household can unlock doors and windows quickly, even in the dark. Windows or doors with security bars should be equipped with quick-release devices, and everyone in the household should know how to use them.
- ◆ When an alarm sounds, leave immediately. Go directly to your meeting place, and call the fire department from a neighbor's phone or portable phone.
- ◆ Once you're out, stay out. Never go back inside a burning building.

This information is provided by the National Fire Protection Association.