

Smoke Detectors

A smoke detector saves a person's life almost every day. In fact, smoke detectors cut the risk of dying in a home fire IN HALF! Most fatal house fires occur in the home--and at night. Smoke and poisonous gases from a fire can numb the senses of a sleeping person in a very short amount of time. Smoke detectors alert sleeping people before they are trapped in a burning building or overcome by smoke.



Choosing A Smoke Detector

There are many types of smoke detectors, each with different features. Detectors can be electrically connected, battery-powered or a combination of both. The pause feature to reduce nuisance alarms is highly recommended.

Types of detectors: power, sensing systems, for the hearing impaired and heat sensors.

- Power: There are battery-powered smoke detectors or other models that can be plugged or hard-wired into your home's electrical system.

There are two types of sensing system detectors--photo-electric or ionization.

- Photo-electric: This type of detector works by aiming a light source into a sensing chamber. The detector is set off when the smoke entering the sensing chamber reflects the light onto the photocell.
- Ionization: This type of detector works by passing an electric current through a sensing chamber. The flow of the current is interrupted when smoke enters the chamber, thus setting off the detector.

Other Choices:

- For the Hearing Impaired: detectors that flash a strobe-like light plus sound a sonic alarm are on the market. Other choices for the hearing impaired are detectors that emit lower-pitched alarm noises which may be more easily heard.
- Heat Detectors: In locations where smoke detectors are not recommended--kitchens, bathrooms, etc.--heat detectors can increase your protection. Heat detectors are not, however, ever to be considered a replacement for smoke detectors. Smoke detectors are almost always set off first, before heat detectors. That early warning can save your family's life!

Special Features:

- **Hush Buttons:** Some newer models of smoke detectors are equipped with a "hush" button or an alarm-pause feature. This allows the unit to be temporarily shut off, usually during "nuisance alarms" when the detector has reacted to a situation that is not a fire. Burnt toast or a smoky oven can trigger a nuisance alarm. By pressing the pause/hush button, the detector is silent for 8 to 10 seconds before it starts up again. This feature is intended to discourage the dangerous habit of removing the detector's batteries.

Make sure to purchase a unit that has been approved or tested. The seal of approval should be clearly visible. Be sure to follow the manufacturer's recommendations for installation, testing and maintenance.

Installation

A drill and a screwdriver are the only tools required to install most battery-operated smoke detectors. Simply follow the manufacturer's instructions and make sure the detectors are firmly in place.

Smoke detectors that operate on household current come in plug-in models and models that can be hard-wired right into your home's electrical system are also available. Make sure that detectors plugged into an electrical outlet have a restraining device so the plug cannot be accidentally pulled out. For hard-wired detector installations, please contact a qualified electrician. NEVER install a hard-wired detector into a circuit that can be turned off by a wall switch.

Location:

One smoke detector is not enough! There should be smoke detectors on every level of your home and near sleeping areas. This means the basement and the attic, too, if it is used as a living space. If you sleep with the bedroom door closed, be sure to install a detector inside your bedroom, too, as smoke and poisonous gases are blocked by a closed door. A smoke detector needs to be installed in a smoker's bedroom, whether the occupant sleeps with the door open or not.

Since smoke rises, detectors should be placed on the ceiling. If you are unable to do so, place them high up on the wall according to the manufacturer's instructions.

- Install wall-mounted detectors so the top of the detector is 4 to 12 inches (10 to 30 centimetres) from the ceiling.
- Install ceiling-mounted detectors at least 4 inches (10 centimetres) from the wall(s).
- If the ceiling is pitched, install the unit at or near the highest point of the ceiling.
- To install a detector in a stairway, make sure the detector is positioned so it is located in the path smoke would travel up the stairway. Make sure the smoke's pathway will not be blocked by a door or any other type of obstruction.
- In the basement, install smoke detectors close to the bottom of the stairs. DON'T install the detector at the top of the stairs. Smoke could be stopped from reaching the detector by the dead air trapped near the closed door.
- Install detectors in places between sleeping areas and rooms where fires usually start such as the kitchen, basement, garage or utility room.

Smoke detectors should NOT be installed in the following locations: near the bathroom, heating appliances or ceiling fans. Avoid installing detectors near windows, doors, forced-air registers or fireplaces as drafts could detour smoke away from the units.

Maintenance

Smoke detectors need regular maintenance for optimum performance. Follow these simple steps to keep your smoke detector working properly.

Batteries:

Replace the batteries at least once a year or when a chirping noise indicates the batteries are running low. It's a good idea to choose a birthday, anniversary or when it's time to change to or from daylight savings time as an easy annual reminder to change the batteries. Refer also to the manufacturer's recommendations. DO NOT borrow the batteries out of the smoke detectors for other purposes. Testing a battery with an open flame--candle or lighter--is not recommended.

Lithium Batteries: detectors with lithium batteries are made to last for 10 years. This eliminates the annual battery changing ritual and may be preferable to older adults or those who have problems changing batteries.

Cleaning:

Also, be sure to clean your smoke detectors at least twice a year as dust and cobwebs can affect the sensitivity of the device. Use the brush attachment on your vacuum to gently dust the smoke detectors; this removes dust and cobwebs that can hamper the detector's sensitivity. NEVER paint a smoke detector.

Testing:

Test your smoke detector once a month. Remember--this quick and simple test could save the lives of you and your family. Follow the manufacturer's instructions to test your unit (usually by pushing a button). If the detector does not respond to the testing, put in a new battery. If there is still no response to the testing, replace the unit with a new one.

Replacement:

Smoke detectors which are performing erratically need to be replaced immediately. A smoke detector that is 10 years old or older also needs immediate replacement.

Nuisance Alarms

Nuisance alarms are alarms set off by non-threatening circumstances, such as a smoky oven or burnt toast. Do not disconnect your smoke detector (this includes removing the batteries!). Move the smoke detector to another location or purchase another detector model to keep your home protected. See "Hush Buttons" above. Make sure you know the reason why a detector has been set off before treating the warning as a nuisance.

Escape Route

If your smoke detector goes off, make sure your family has an escape route planned and rehearsed for a quick exit. Everyone needs to know, too, the second escape route in case the first is blocked by smoke and fire. Meet outside at a predetermined location and NEVER go back into a burning building.