

# Smoke Alarms Save Lives

Sixty-five percent of home fire deaths happen in homes with no smoke alarms at all or no smoke alarms that work. When there is a fire, smoke spreads fast, and you need smoke alarms to give you time to get out.

## Types of smoke alarms

### Ionization smoke alarms

**Typically more responsive to flaming fires,** Ionization-type smoke alarms have a small amount of radioactive material between two electrically charged plates, which ionizes the air and causes current to flow between the plates. When smoke enters the chamber, it disrupts the flow of ions, thus reducing the flow of current and activating the alarm.

### Photoelectric smoke alarms

**Typically more responsive to smoldering fires,** Photoelectric-type alarms aim a light source into a sensing chamber at an angle away from the sensor. Smoke enters the chamber, reflecting light onto the light sensor; triggering the alarm.

### Recordable voice smoke alarms

Smoke alarms that include a recordable voice announcement in addition to the usual alarm sound may be helpful in waking children by using a familiar voice.

### Strobe light smoke alarms

These alarms help alert the deaf and hard-of-hearing by emitting a bright strobe light. Some of these alarms also use low frequency audible alarms. Vibration equipment attachments are also available.

### Smoke alarms with hush buttons

If cooking fumes or steam sets off nuisance alarms, swap out the alarm for one that has a hush button. A hush button will reduce the alarm's sensitivity for a short period of time.

## Tips for smoke alarm installation

- Install a smoke alarm in every bedroom, outside each separate sleeping area, and on every level of your home, including the basement. Interconnect all the smoke alarms throughout your home so when one sounds, they all sound
- For the best protection, both photoelectric and ionization alarms or a combination alarm should be installed throughout your home
- Smoke rises, so be sure to install your smoke alarms following the manufacturer's instructions. Alarms should be installed high on a wall or on a ceiling. Save the manufacturer's instructions for monthly testing and future maintenance
- An ionization alarm with a hush button or photoelectric alarm should be used if the alarm is within 20 feet of a cooking appliance
- Alarms that are hard-wired must be installed by a qualified electrician. This includes hard-wired alarms with a battery back-up
- Be sure your smoke alarms have the label of a recognized testing laboratory

## How to maintain your smoke alarms

Like many other devices and appliances around the house, smoke detectors require regular cleaning and maintenance to function effectively. To ensure the best smoke detection possible, follow our easy tips for keeping household smoke alarms tuned up, properly powered, and ready for action.

1

Test your smoke alarms monthly by pushing the test button. Replace all your smoke alarms that are not functioning properly.

3

Replace all your smoke alarms—including alarms that use ten year batteries and hard-wired alarms—when they are ten years old, or sooner if they do not respond properly during monthly testing.

2

Clean your smoke alarms twice a year, using the wand extension for your vacuum cleaner to remove cobwebs and dust particles that could trigger a false alarm.

4

Replace the batteries in all your smoke alarms at least once a year. A "chirping" smoke alarm indicates a low battery which should be replaced right away.

