



**Prepare Your Family for Fire Safety** 

# **Smoke Alarms and Carbon Monoxide** (CO) Detectors

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No matter how careful you are, fires can still happen. Fires can begin because of old or damaged electrical wiring, malfunctioning heating equipment or appliances, or acts of nature like lightning strikes. To protect your family, you need an early warning, and you need to be prepared to act quickly.

While most fires happen during the day, most fatal fires happen at night while people are asleep. The primary risk in a house fire, especially at night, is not the fire and flame, but being overcome by the smoke.



Working smoke alarms are constantly alert to the presence of smoke and provide a critical early warning that will awaken you and give you time to escape.

In addition to smoke alarms, every home should have carbon monoxide (CO) detectors. Carbon monoxide is a poisonous, odorless, colorless gas resulting from malfunctioning furnaces, heaters, generators, improperly vented fireplaces and automobiles left running. Carbon monoxide can build up in a house day or night, and will initially make you sleepy. Dangerous levels of carbon monoxide can lead to explosion, severe poisoning, and even death. CO detectors provide a clear, early warning of the presence of CO and prompt you to leave the house and call for help.

## SMOKE ALARMS

### **Smoke Alarms Work**

A working smoke alarm cuts the risk of dying in a fire by half. While most fires happen during the day, most fatal fires occur at night. A working smoke alarm can detect a fire and awaken you in time to get out safely.

The National Fire Protection Association recommends one smoke alarm on every level of the home, one outside of each sleeping area, and one in every bedroom. Having a smoke alarm inside a bedroom is especially important if you close the door when you sleep. Ideally the alarms will be interconnected so that when one sounds, they all sound.

Having even one working smoke alarm is critical. The largest increase in safety happens between having no working alarms and having one. If you feel that what's recommended is impractical or too expensive for you, install as many as you can. Almost all local fire departments will provide, and most likely install, smoke alarms if you cannot afford them.

## **Keep Them Working**

Installing alarms is only the first step. It's just as important to maintain them. When smoke alarms don't work, it's usually because their batteries are either missing or dead. This is especially true of smoke alarms powered by traditional disposable batteries, versus sealed alarms that have long-life batteries that cannot be replaced.

Most frequently, smoke alarm batteries are removed because of nuisance alarms – frequent false alarms. Sometimes this is just the "beeping" of the alarm when its batteries are nearly exhausted. While the low warning could begin at any time of day, it's most noticeable and annoying at bedtime. If you're tired and can't be bothered to find a fresh battery, or if you simply don't have one, you might be tempted to remove the old battery to quiet the alarm. While this does stop the alarm, it also stops the early warning the alarm provides.

Another common reason for removing a battery is the placement of the alarm – too close to the kitchen where burning toast, frying chicken or broiling hamburgers can set it off. While removing the battery is a quick and easy way to silence it and remove the annoyance, you lose the protection. And once you remove a battery it may be a long time before you replace it – if you ever do.

# **Battery Maintenance**

There are two effective approaches to battery maintenance. The easier and, over time, less expensive approach is to replace conventional nine-volt batteries with lithium-ion "long-life" batteries. These batteries should last as long as the smoke alarms themselves.

The second approach is to change the batteries before they wear out. A common practice is to change them when you change your clocks for Daylight Savings Time twice a year.

If the smoke alarm becomes a nuisance because it's too close to the kitchen, moving it will reduce the frequency of false alarms – at least ten feet away is recommended. In addition, having a smoke alarm with a hush button that temporarily silences the alarm greatly reduces the temptation to remove the batteries.

Finally, no smoke alarm is maintenance free. A quick vacuuming will keep dust out of the smoke sensing device. Also, a quick monthly test, by simply pressing the "test" button, will ensure the alarm is working properly.

Despite what many people think, smoke alarms don't last forever. Ten years is the longest you should keep any smoke alarm. It's a good idea to write the date on the alarm when it is installed and replace the entire unit at least once a decade. If your white smoke alarms have turned yellow, it's very likely they're older than ten years and should be replaced immediately!

SN	MOKE ALARM CHECKLIST
	Install smoke alarms on every level of your home, outside the sleeping areas and in the bedrooms, or as many as you can afford knowing that most fire departments will provide an alarm if needed.
	Remember, no smoke alarm is maintenance free: test each alarm once a month to be certain it is working. Vacuum them periodically.
	Replace entire smoke alarm units at least once every ten years.
	Install long-life lithium batteries in your battery-operated alarms, or change the batteries twice a year so each alarm always has full power and you need not hear the low battery alarm.
	To avoid nuisance alarms, install smoke alarms with hush buttons that can temporarily silence the alarm, and avoid installing an alarm fewer than ten feet from the kitchen.

### **Additional Resources**

The links below provide more detailed information on types of smoke alarms, which is best in different locations, proper placement of alarms in basements, hallways and rooms with vaulted ceilings, alarms for individuals who are hearing impaired, and battery technology:

http://homefiredrill.org/

https://www.youtube.com/watch?v=tNxkkVEArm8

http://www.nfpa.org/safety-information/for-consumers/fire-and-safety-equipment/smoke-alarms

## CARBON MONOXIDE DETECTORS

Carbon monoxide detectors should be installed on every level of a house and outside the sleeping areas. They should also be tested every month and replaced when they fail to respond to the test button.

Because carbon monoxide is odorless and colorless, a CO detector is the only way to tell if the poisonous gas is present. Unlike smoke alarms that can go off due to nuisances, false CO alarms are highly unlikely.

CO alarms have a different sound than a smoke alarm. Everyone in the family should be able to hear the difference between the alarms and leave the house immediately, go to the meeting place and call 911 should the CO detector sound.

Similar to smoke alarms, CO detectors do not last forever. They have a shorter life span than smoke alarms and should be replaced every seven years. Again, it's a good idea to write the date on the alarm when it is installed and replace the entire unit at least once every seven years.

CO ALARM CHECKLIST	
Install CO alarms on every level of your home and outside each sleeping area.	
Remember, similar to smoke alarms, no CO alarm is maintenance free: test each alarm once a month to be certain it is working. Vacuum them periodically.	
Replace entire carbon monoxide detector units at least once every seven years.	
Install long-life lithium batteries in your battery-operated alarms, or change the batteries twice a year so each alarm always has full power, and you need not hear the low battery alarm.	l
Unlike smoke alarms, false CO alarms are very rare. When the alarm sounds, leave the house, go to your meeting place and call 911.	

### **Additional Resources**

The links below provide detailed information about carbon monoxide poisoning, who is most at risk, and descriptions of the necessary household maintenance chores that can reduce the risk of exposure to carbon monoxide:

http://www.nfpa.org/safety-information/for-consumers/fire-and-safety-equipment/carbon-monoxide

http://www.cdc.gov/co/default.htm