

This Fact Sheet was jointly produced by the US Fire Administration, US Department of Housing and Urban Development, and NIST Building and Fire Research Laboratory.

Smoke and Carbon Monoxide (CO) Alarms

Home Dangers

There are a few hundred CO fatalities annually, and many more suffer flu-like symptoms from CO exposure. You can improve the chances that your family will survive a home fire or CO leak by having smoke and CO alarms and knowing what to do if they sound. Alert your family to danger. The best way to get the earliest warning in the event of a home fire is by installing enough smoke alarms. Homes should have a smoke alarm near the bedrooms, but not so close to the kitchen that you have problems with alarms from cooking. It's a good idea to have a smoke alarm in each bedroom, especially if you sleep with the door closed. CO usually comes from faulty heating appliances but may also come from fireplaces or cars running in attached garages. CO cannot be seen, tasted or smelled, so the only way to detect a CO problem is to have a CO alarm. CO alarms should be located near the bedrooms. If your smoke or CO alarm sounds, get everyone outside.

What kinds are there?

There are two kinds of smoke alarms -ionization and photoelectric. The ionization activate quicker to fast, flaming fires and the photoelectric are quicker for slow, smoldering fires. Either one will provide enough time to get out, but having a mix of the two types is a good idea. Models with both sensors are better than single sensor units, but of course they cost more. Smoke and CO alarms are powered either by household current (ac), a battery, or from ac with a battery that keeps it operating during power outages. The battery type are easy to install in existing homes. In some the battery must be changed annually but others use a battery that can last 10 years. New homes require ac powered alarms with battery backup. For greater safety, older ac only smoke alarms should be replaced with ac/battery, and any smoke alarm older than 10 years should be replaced. Many areas now require CO alarms when a home uses gas or oil, or has a fireplace. Most CO exposures come from equipment that will not be working during a power outage so plug-in units are good. But if you might heat your home from a fireplace, wood stove, or kerosene heater when the power is out, you may want to use a battery powered alarm. Some CO alarms require the sensor element to be replaced regularly. Consider the cost of the replacement element before you choose. 10/04