

## **Product Safety Tips - Smoke Alarms**

Smoke alarms may allow you and your family sufficient time to reach safety by providing early warning in the event of a fire. Many people have neglected to install smoke alarms despite their life-saving potential and low cost. Even those who do have smoke alarms forget that they need some maintenance attention to continue working properly. UL offers the following tips for purchasing and maintaining smoke alarms.

### **Purchasing a smoke alarm**

Experts report that consumers may cut their risk of dying in a home fire in half simply by having a working smoke alarm in their homes. Smoke alarms are available at nearly all hardware, department and discount stores.

### **Look for the UL Mark**

When you purchase a smoke alarm, look for the UL Mark on the product as well as on the packaging. The UL Mark tells you that a representative sample of the smoke alarm has been evaluated by UL according to nationally recognized safety requirements. It also means that UL conducts follow-up evaluations to countercheck that samples of the smoke alarm continue to meet these safety requirements.

### **Photoelectric and ionization type alarms**

There are two types of smoke alarms available today: photoelectric and ionization. When smoke enters a photoelectric alarm, light from a pulsating light source is reflected off the smoke particles onto a light sensor, triggering the alarm. When smoke enters an ionization alarm, ionized air molecules attach to the smoke particles and reduce the ionizing current, triggering the alarm. While photoelectric smoke alarms generally respond faster to smoldering smoke conditions and ionization smoke alarms generally respond faster to flaming fire conditions, both types provide adequate protection against fire. Combination smoke alarms featuring both photoelectric and ionization technology are also available at hardware, department and home improvement stores.

### **Safety in numbers**

Install at least one smoke alarm on each floor of the house or residence and outside all sleeping areas. Some fire safety advocates recommend installing smoke alarms inside each sleeping area, especially if sleeping with the door closed. Current model building and fire codes require all new homes to have interconnected smoke alarms with battery back-up to be installed on each floor level as well as outside all sleeping areas and inside each bedroom.

### **Smoke alarm maintenance**

Working smoke alarms are needed in every home and residence. Test and maintain your smoke alarms at least once a month unless otherwise noted by manufacturer instructions. Smoke alarms most often fail because of missing, dead or disconnected batteries. Replace the batteries at least once a year or whenever the alarm “chirps” indicating the battery is getting low.

**Tip: Schedule battery replacements for the same day you change your clocks from Daylight Savings Time to Standard Time in the Fall.**

Some new model smoke alarms have batteries that last for up to 10 years and are “sealed” so that the battery cannot be removed. These smoke alarms need to be replaced at least every 10 years or whenever the alarm “chirps” indicating low battery. In fact, the National Fire Alarm Code (NFPA 72) requires residential smoke alarms to be replaced every 10 years.

**Fire escape planning**

In addition to installing smoke alarms in your home, UL also recommends that you develop a fire escape plan and practice it at least twice a year with all members of your household. In the event of a fire, every family member should know at least two ways out of each room. Stay as close to the floor as possible during your escape as hot air, toxic gases and smoke rise to the ceiling and the air nearest the floor will be safer to breathe. If you encounter a closed door during your escape, feel the door before opening it. If it is hot to the touch, use another exit. The heat could indicate fire on the other side of the door. Teach your children how to escape in case of a fire and not to hide under a bed or in a closet.

Certain individuals, including children, elderly people and those with special needs, may not wake up to the sound of a smoke alarm. You should be aware of this when developing your home fire escape plan.

Designate a well-lit place that is a safe distance away from your home such as a tree, street light or mailbox, where everyone will meet in the event of a fire. This will help firefighters determine if anyone else is still inside the home. Never return to a burning building for any reason. As soon as possible, call the fire department by dialing 911 and be prepared to clearly state your name and the exact address of the fire. Stay on the line to answer further questions the emergency operator will ask.

**Important safety instructions (recommend deleting this section as it duplicates other more detailed instructions)**

- Read and follow the manufacturer's installation and maintenance instructions exactly.
- Install fresh batteries in your smoke alarms at least once a year.
- Do not allow anyone to disconnect or substitute the batteries from your smoke alarms. A smoke alarm cannot work unless it is connected to a power source.
- Do not panic if a smoke detector's warning alarm sounds. Stay close to the floor and get out of the building. Before opening any doors, check the temperature. If the door feels hot to the touch, do not open it; use an alternate exit instead.