



The Office of Fire Safety and Injury Prevention Education

8501 Veterans Highway Millersville, MD 21108 410-222-8303

www.aacounty.org

Smoke Alarms

Did you Know? ... Every day in the United States 1,500 homes burn. Each year 4,500 people die and 280,000 are injured in residential fires. The majority of fire deaths occur at night, while everyone is asleep. Without early warning, their senses may be dulled and disable their ability to escape.

How do they operate?

There are two types of alarms:

- **Ionization**—A radioactive material is used to ionize the air in the sensing chamber. Smoke entering the chamber activates the alarm.
- **Photo Electric**—Works much like an electric eye on an automatic door. When smoke enters the chamber, the electric eye sees it, which activates the alarm.

How are they powered?

There are three ways that a smoke alarm may be powered:

- **Battery**—The easiest to install because they do not require any connection to the home's electrical system. The challenge with these alarms is they require the battery to be replaced periodically for the unit to work.
- **A/C Hard Wired without battery backup**—These alarms are wired directly into the home's electrical system. These alarms do not operate if there is a power outage.
- **A/C Hard wired with battery backup**—This is the best way an alarm can be powered. If the battery dies, it will still be powered by the home's electrical system. And if there is a power failure, the battery will operate the alarm.



How should they be installed?

Follow the manufacturer's recommendations on proper placement. Avoid areas within 6 inches of where the ceiling meets the wall. The smoke will rise along the wall and curve to the ceiling, delaying or never activating the alarm.

Proper Maintenance:

- Power supply should be checked once per month by pressing the test button.
- Battery should be changed at least once per year.
- Remove cobwebs, insects or dust by vacuuming at least every six months.

What is the life span of a smoke alarm?

Smoke alarms should be **replaced every ten years**. Smoke alarms should also be replaced when they beep periodically and cannot be corrected by replacing the battery or vacuuming to remove dust or cobwebs.

If you require assistance to purchase a smoke alarm, or are not sure how to install one that you purchase:

Call 410-222-8303

Assistance is available

Alarms are provided to those who qualify and will be installed by Fire Department personnel.

You should have a smoke alarm on every floor, outside sleeping areas and inside every bedroom. Remember to practice your Fire Escape Plan!

Fact Sheet