

**Township of Lower Makefield** OFFICE OF THE FIRE SERVICE DIRECTOR 1100 Edgewood Road Yardley, PA 19067

(267) 274-1127 firesafety@lmt.org



# **Smoke Detector Information**

## Why do I need smoke detectors?

Installing and maintaining smoke detectors, estimates that you can reduce your chance of dying from a fire by 50%. How? Smoke detectors detect the presence of a fire long before someone senses heat from a fire. It is most always smoke that is the cause of death compared to heat. People will breathe in smoke and heated gases long before they are exposed to heat.



#### How do smoke detectors work?

Smoke detectors operate on two different principles. The first is called photoelectric which uses a beam of light. One part of the detector shines a beam of light and another can "see" the beam. When smoke enters the chamber, it scatters the light and blocks the detector from seeing the light. When this happens, the detector sees this and sounds the alarm.

The second kind is called an ionization detector. It uses a small piece of radioactive material to charge the air. The air flows to two electrodes passing along electricity. When smoke enters the chamber, it interferes with the flow of electricity and sounds the alarm. Most of the detectors you can purchase at the store are of the ionization type.







Both kinds of detectors can detect either slow-burning "smoldering" fires or fastburning "flaming" fires, but each technology has its strengths. Ionization-based detectors tend to detect small black soot particles from flaming fires more quickly because they are produced in greater numbers and take away more current from between the plates. Photoelectric detectors tend to be more sensitive to particles that are larger in size and white or light-colored, and thus more reflective, like those emitted by smoldering fires.

## Where do I install my smoke detector?

Install smoke detectors in every bedroom, outside of each sleeping area, every level of the home, including the basement. Larger homes may require additional smoke detectors.



It is best to use interconnected smoke detectors so that when one goes off, they all sound. Building codes for years have required this in residential homes. These smoke detectors have wires hooked into them along with a battery for when the power goes out. Homeowners must remember that these detectors must have their batteries changed every 6 months (daylight savings time) so that that annoying chirp does not occur.





A smoke detector should be on the ceiling or high on the wall. Keep smoke detectors away from the kitchen to reduce false alarms (at least 10ft. away from the stove).



- People who are hard-of-hearing or deaf can use special alarms that have strobe lights and bed shakers.
- All smoke detectors, whether installed in a residential or commercial property should be replace every 10 years or when the detectors indicate it has reached its end of life. Some detectors do not last 10 years depending on their location and exposures.

# SMOKE DETECTOR CHECKS OR INSTALLATION

Working Smoke Alarms Save Lives!

Any Lower Makefield Township or Yardley Borough resident who needs a smoke detector or would like us to check their smoke detectors can call our office at 267-274-1127 to request a visit. Once the call is received, a member from our office will schedule a visit with you during business hours, Monday to Friday from 8 AM and 4:30 PM.

Lower Makefield Township has partnered with the American Red Cross on this life-saving initiative.