Keeping Safe With Smoke Detectors

How effective are smoke detectors?

Residential fire deaths have decreased steadily as the number of homes with smoke detectors increased. Reports from the National Fire Protection Association on residential fire deaths show that people have nearly a 50 percent better chance of surviving a fire if their home has the recommended number of smoke detectors.

Should I replace my smoke detector?

Smoke detectors that are 10 years old are near the end of their service life and should be replaced.

My detectors are wired into my electrical system. Do I need to replace them as often as battery-operated detectors?

Yes. Both types of detectors are equally affected by age.

How many detectors should I have?

The average sized home or apartment needs more than one smoke detector. The exact number depends on the number of levels in the home and the number of bedrooms. National fire safety standards recommend a minimum of one detector on each level of the home, one detector outside the bedroom area, and one in each bedroom. The detector that is placed outside of the bedroom area should be installed near enough to be heard at night through a closed bedroom door.

Is there more than one type of smoke detector, and what is the difference?

There are two types of smoke detectors for homes. One type is called an ionization detector because it monitors "ions," or electrically charged particles. Smoke particles entering the sensing chamber change the electrical balance of the air. The detector's horn will sound when the change in electrical balance reaches a preset level.

The other type of detector is called photoelectric because its sensing chamber uses a beam of light and a light sensor. Smoke particles entering the chamber change the amount of light that reaches the light sensor. The detector sounds when the smoke density reaches a preset level.

Is one type better than the other?

The ionization detector responds faster to small smoke particles, while the photoelectric responds faster to large smoke particles.

My detector goes off when I cook. How can I stop this?

Smoke detectors are designed to be very sensitive so they will alert occupants to a fire in time for them to escape. If a detector regularly responds to smoke from cooking, there are several options for handling this problem. One way is to replace the detector with one that has a button that silences it for a few minutes. Another way is to move the detector farther away, giving the smoke a chance to disparate cooking smoke.

Reference: http://www.dallaspolice.net

How can I test my detector?

Every smoke detector comes with a test button. We recommend that people test their detectors regularly, at least once a month.

Should I use real smoke to test my detectors?

This is not recommended because the burning objects used to create the smoke might cause a fire. Some stores sell pressurized cans of simulated smoke for this purpose. When using this product, follow the operating instructions and do not get the can too close to the detector.

How important is it to clean my detector?

Cleaning is easy. Just vacuum the detector at least once a year. This will keep the openings to the sensing chamber free of dust, residue from cooking vapors and insects.

What about changing batteries?

Smoke detector batteries should last at least one year under normal conditions. The biggest reason that smoke detectors don't work is because people remove the batteries, e.g., to stop the low battery signal or a nuisance alarm, and forget to replace them. When a battery reaches the end of its service life, the detector will give a short beep every minute or so

Placement Recommendations

At the minimum, you should have one detector for each level in your home. A detector needs to be placed within ten feet of all sleeping areas, since most fire deaths occur at night while people are sleeping.

The unit should be mounted high on the wall, or, at best, on the ceiling. It should never be placed near the juncture of the wall and ceiling, as there is a "dead air" space there.

Avoid installing a detector near bathrooms with showers. Steam can sometimes cause false alarms and the moisture can rust metal components of the detector.

Avoid installing detectors in garages, attics or other places where the environment may have spiders (and webs), high levels of particulate matter in the air (dust, auto exhaust, etc.) and large temperature ranges from very hot to very cold.

Testing and Maintenance

Each detector comes with recommendations for testing the unit. Generally, activating the testing mechanism once a month should be sufficient.

Once or twice a year, use a vacuum with a hose and attachments to remove any dust or cobwebs from the unit. This will cut down on false alarms.

Most battery powered smoke detectors will sound sporadically when the battery is weak. Always test battery powered detectors upon your return after having been away from home for a week or more. The battery may have gone dead and you may have missed its warning alarm. It is recommended that batteries be changed once a year.

Reference: http://www.dallaspolice.net