How effective are smoke alarms?

Residential fire deaths have decreased steadily as the number of homes with smoke alarms has 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 alarms.

When should I replace my smoke alarm?

Smoke alarms that are 10 years old are at the end of their service life and must be replaced. A smoke alarm constantly monitors the air 24 hours a day. At the end of 10 years, it has gone through over 3.5 million monitoring cycles. After this much use, components are not reliable. This means that as the alarm gets older, the potential of failing to detect a fire increases. Replacing them after 10 years reduces this possibility.

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

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

How many alarms should I have?

The average sized home or apartment needs more than one smoke alarm. 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 alarm on each level of the home, one alarm outside the bedroom area, and one in each bedroom. The alarm that is placed outside 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 alarm? If there is, what is the difference?

There are two types of smoke alarms for homes: ionization and photoelectric. Ionization alarms respond faster to flaming fires. Photoelectric alarms respond faster to smoldering fires. Sioux Falls Fire Rescue recommends installing dual-sensor smoke alarms that have both ionization and photoelectric sensors.

What is more important, the type of alarm or the number?

The number of alarms is more important than the type. Installing several smoke alarms of each type will provide better coverage in the extreme cases of long-term smoldering or fast flaming fires. But since both types respond in time to escape, the most important thing is to install enough alarms in the proper locations. Alarms are available with both types of sensors in the same unit, but they are more expensive than models with a single sensor. If the choice is between having only one of each type or having more of the same type, more alarms is the better choice.

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

If an alarm regularly responds to smoke from cooking, there are several options for handling this problem. One way is to replace the alarm with one that has a button that silences it for a few minutes. Another way is to move the alarm farther away, giving the smoke a chance to dissipate.

How can I test my alarms?

Use the “Push to test” button to test the function of the alarm. The burning of paper or other objects to create smoke is not recommended, as this may cause a fire. Some stores sell pressurized cans of “test smoke” that may be used for alarm testing. If using this product, follow the operating instructions, and do not get the can too close to the alarm. This prevents the smoke from coating the alarm’s sensing chamber, which can make the alarm inoperable.
How important is it to clean my alarms?

Cleaning is easy. Just vacuum the alarm 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 the batteries?

Smoke alarm batteries should last at least one year under normal conditions. The biggest reason that smoke alarms 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 alarm will give a short beep every minute or so. It is easy to remove the battery and then forget to replace it. The best way to prevent this is to replace batteries at the same time each year before the low battery signal begins. It helps to write the date on the battery so you know when it was installed.

For further information please contact Sioux Falls Fire Prevention Division at 367-8093.