Fire Security for Your Home

By Hannah Kerns

Everyone wants to provide a safe place for themselves and their families in which to live. It is wise to take safety precautions in order to avoid hazardous situations, and in worse case scenarios- to warn loved ones of impending danger. Fire is a potential disaster that can affect any building regardless of how expensive it is or where it is located. In the United States, fires account for over 3,500 deaths annually according to the U.S. Fire Administration. In addition to deaths, fires are also responsible for more than 18,000 injuries. One of the most accurate ways to help reduce the number of injuries and deaths caused by fires is to have a system in place to alert people should a fire start. Therefore, it is imperative to install up to date smoke alarms in the home and office.

Smoke alarms will not prevent fires from starting, but they do serve a very important purpose. The most obvious benefit of a smoke detector is to alert people to the presence of smoke and possible fire in the home or building. A fully operational smoke alarm will sound when it detects the presence of smoke. As a result, it prevents people from being surprised by the presence of a fire and gives them the opportunity to safely evacuate the premises. A smoke alarm can greatly reduce the risk of death due to both smoke inhalation and the fire itself. In addition to alerting the family so that they can evacuate the home, it also affords the opportunity to contact help and get the fire department to their home as swiftly as possible.

Smoke alarms are relatively inexpensive and are available for purchase at places such as hardware, home improvement, and most big box department stores. In most homes at least one smoke alarm should be placed on every floor and situated in a location that is high up on a wall. When purchasing a smoke alarm people have three types to choose from - photoelectric, ionization, and dual technology alarms. The difference between these alarms lies in the type of smoke that they detect. Ionization smoke detectors are most responsive when it comes to detecting fast and flaming fires, like kitchen fires for example. Smoldering fires are best detected by photoelectric alarms. A dual-technology alarm contains the smoke detecting technology of both ionization and photoelectric alarms. For the best results a dual-technology alarm is the most effective, otherwise a home should have both photoelectric and ionization alarms installed.

In addition to different types of smoke alarms there are different power sources as well. Certain smoke alarms are connected directly to the electrical system in the home. These are known as hard-wired alarms and despite running on electricity they also have a battery as a back-up in the event of a power outage. Additionally, hard-wired alarms must be installed by a licensed electrical technician. Smoke alarms that run on batteries alone are also very common. These require either a long-life battery or a 9-volt battery. Regardless of the power source or the specific type of smoke alarm that a person installs in his or her home, it is necessary to maintain it properly.

A properly maintained alarm will ensure that it is in good working condition and able to detect a fire if necessary. There are several things that must be done to maintain them. One of these is to perform a

monthly check to ensure that it is operating correctly. This is done by pressing down on the test button that is located on the face of the device. In addition to testing the alarm, unless it runs on long-life lithium batteries, the batteries must be changed annually. "Chirping" batteries must be replaced as quickly as possible. Dust may interfere with certain types of smoke alarms. For this reason it is important to dust the alarm using a hand-held vacuum or a vacuum with an attachment at least every six months to keep it clean. Regardless of maintenance it is advised that all smoke alarms are replaced after ten years have passed. To determine the age of the smoke alarm a person need only look at the serial number at the base of the alarm. It will have numbers to represent the month and year that the product was manufactured or when it will expire.

Functioning smoke alarms are critical when it comes to ensuring the safety of one's family. They are designed to detect the presence of smoke in the air, eliminate surprises and cut the number of deaths due to smoke inhalation. Thousands of people die from fires every year. In homes, this often occurs because the smoke alarm was either not functioning properly or the home was without an alarm altogether. To get the most out of one's smoke alarm a person will need the right type for their living environment, and they will need to ensure that it is well maintained.

For more information about smoke alarms, please review the following information.

- [U.S. Fire Administration: Learn About Smoke Alarms](#)

- [Fire Safety Advice Centre: Wake Up Get a Smoke Alarm](#)

- [Troy Fire Protection District: Learn About Smoke Alarms](#)

- [National Fire Protection Association: Smoke Alarm Safety Tips](#)

- [Types of Smoke Alarms](#)

- [Installing and Maintaining Smoke Alarms](#)

- [EPA: Buying a Smoke Detector](#)

- [Smoke Detectors for Your Home](#) (PDF)

- [Kentucky Injury Prevention and Research Center: Smoke Alarms](#)

- [What Powers a Smoke Alarm?](#)