Lincoln Pediatrics
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Smoke, Heat, and Carbon Monoxide Detectors

The leading cause of deaths and injuries to children at home is accidents. Fires are one of the most dangerous of such accidents. Most fatal home fires occur at night, while people sleep. If you are asleep or become disoriented from toxic gases produced by a fire, you may not even realize that there is a fire. A smoke or heat detector can sound an alarm and alert you to the danger in time to escape.

Carbon monoxide is a colorless, odorless gas that is made by many household appliances (furnaces, dryers, ranges, ovens, and heaters). Usually, carbon monoxide and other gases are vented to the outside. But, if something goes wrong and carbon monoxide leaks into your home, it could be deadly. The alarm of a carbon monoxide detector will go off in time to get out before a normal adult starts feeling sick.

The following are some common questions and answers about smoke, heat, and carbon monoxide detectors.

1. **Q. What are the types of alarms or detectors?** A: There are 3 types of detectors:
    1. Heat detectors, which sound an alarm to warn of an abnormally high temperature near the detector.
    2. Smoke detectors, which sound an alarm at the first trace of smoke.
    3. Carbon monoxide detectors, which sound an alarm if the carbon monoxide level in the home is too high.
2. **Q: What is the power source for these detectors?** A: Some detectors operate on batteries. Others are either plugged into a wall outlet or wired directly into the house.
3. **Q: What are the pros and cons of the battery powered alarms?** A: An advantage of battery alarms is that they are not affected by a fire that cuts off the electricity to the house. Also, they can be put anywhere, even where there are no electrical outlets or wires. The disadvantages are that the batteries need to be changed about once a year and the beep signaling a low battery can be annoying.
4. **Q: What is the best type of battery to use?** A: Lithium batteries can last up to 5 or 6 years, reducing the chance that the detector will have a dead battery when you need it most. However, lithium batteries are a lot more expensive.
5. **Q: What are the pros and cons of the detectors powered by household current?** A: You do not have to change batteries and there is no annoying beep when the battery is low. However, fires that affect the household current will make the alarm not work. Also, detectors must be placed where wiring or outlets are available.
6. **Q: Do I have to do anything to maintain my detectors?** A: Yes. You should test them once a month by holding a candle 6 inches away and blowing smoke toward the detector. The alarm should sound in 20 seconds. Some alarms have test buttons, but to be sure the detector works, you must use the smoke-testing method. To test your carbon monoxide detector, just use the test button. For all types of detectors, replace batteries at least once a year and when they are low. Use the correct kind of battery. You must clean the unit at least once a year by vacuuming the detector. Never paint the detector.
7. **Q: With so many brands of detectors on the market, how do I choose one?** A: Be sure to buy a detector that has the label of a testing laboratory, for example, Underwriter's Laboratory (UL). Follow the installation and maintenance recommendations of the manufacturer. Buy the type that best suits your household needs and budget.
8. **Q: How many smoke, heat, or carbon monoxide detectors should I buy for my house?** A: Install a smoke or heat detector outside each bedroom area and one on each floor of the house. For extra protection, you can also put them in bedrooms, the dining room, furnace room, utility room, attic, garage, and hallways. Carbon monoxide detectors should be just outside of or in each bedroom.
9. **Q: Where should the detectors be placed?** A: All types of detectors should be mounted on the ceiling. Smoke rises so to detect the first traces of smoke a detector could also be mounted high on a wall (4 to 12 inches from the ceiling).
10. **Q: How much will it cost to install smoke, heat, or carbon monoxide detectors?** A: You can buy detectors for about $7 to $60 each. Packaged fire detection systems may cost $300 and up.

The extra time provided by a detector alarm may allow your family to escape unharmed from a fire or carbon monoxide poisoning. The extra time and money spent on buying, installing, and maintaining your detectors could save your lives.