

EBOOK

# FIRE SAFETY FOR YOUR HOME



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# Fire Safety for the Home

by Nick Gromicko and Kate Tarasenko

The U.S. Fire Administration reports that more than 403,000 home fires occurred in the U.S. in 2008, causing 2,780 deaths and more than 13,500 injuries. Some fires are caused by issues related to the structure, such as lightning strikes, faulty wiring, furnace malfunctions, and other electrical and heating system-related mishaps.

But most home fires are preventable. According to an April 2010 report by the National Fire Protection Association, adults over the age of 75 are almost three times more likely to die in a home fire than the rest of the general public. The NFPA's fire prevention program promotes the following eight tips that elderly people – and people of all ages – can use.

## 1. *Plan and practice your escape from fire.*



We've heard this advice before, but you can't be prepared to act in an emergency if you don't have a plan and everybody knows what that plan is. Panic and fear can spread as quickly as a fire, so map out an escape route and a meeting place outdoors, and involve even the youngest family members so that everyone can work as a unit to make a safe escape.

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If you live in a condo or apartment building, make sure you read the signs posted on your floor advising you of the locations of stairways and other exits, as well as alarm pull stations and fire extinguishers.

## 2. *Plan your escape around your abilities.*

Keeping a phone by your bedside will allow you to call 911 quickly, especially if the exits of your home are blocked by smoke or flames. Keep a pair of shoes near your bed, too. If your home or building has a fire escape, take some time to practice operating it and climbing it.

## 3. *Smoke alarms save lives.*

If you don't already have permanently installed smoke alarms hard-wired into your electrical system and located outside each bedroom and on each floor, purchase units and place them in those locations. Install them using adhesive or screws, but be careful not to touch your screwdriver to any internal wiring, which can cause an electrostatic discharge and disable them.

Also, install carbon monoxide detectors, which can protect family members from lethal poisoning even before a fire starts.

## 4. *Give space heaters space.*

Whether saving on utility bills by using the furnace infrequently, or when using these portable units for spot heat, make sure you give them at least 3 feet of clearance. Be sure to turn off and unplug them when you leave or go to bed. Electrical appliances draw current even when they're turned off, and a faulty one can cause a fire that can spread through the wires in the walls at a deadly pace.

## 5. *If you smoke, smoke outside.*

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Not only will this keep your family members healthier and your home smelling fresher, it will minimize the chance that an errant ember from your cigarette will drop and smolder unnoticed until it causes damage.

## 6. *Be kitchen-wise.*

This means monitoring what you have on the stove and keeping track of what's baking in the oven. Don't cook if you're tired or taking medication that clouds your judgment or makes you drowsy. Being kitchen-wise also means wearing clothing that will not easily catch on the handles of pots and pans, or graze open flames or heating elements.

It also means knowing how to put out a grease fire; water will make it spread, but salt or baking soda will extinguish it quickly, as will covering the pot or pan with a lid and turning off the stove. Always use your cooktop's vent fan while cooking.



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Keep a small, all-purpose fire extinguisher in a handy place, such as under the sink. These 3-pound lifesavers are rated “ABC” for their fire-suppressing contents: “A” puts out ignited trash, wood and paper; “B” acts on grease and other flammable liquids; and “C” deals with small electrical fires. Read the instructions on these inexpensive devices when you bring them home from the store so that you can act quickly, if the time comes. If your fire extinguisher is somewhat old because you've yet to use it, turning the canister upside-down and tapping the bottom will help agitate the contents and prevent them from caking, and possibly clogging the nozzle at the time of use. It's also a good idea to stow an extra fire extinguisher near the bedrooms. If an emergency arises and you find yourself trapped by an uncooperative window, you can use the canister to smash through it.

## 7. *Stop, drop and roll.*

Fight the urge to panic and run if your clothes catch fire because this will only accelerate its spread, since fire needs oxygen to sustain and grow. Tamping out the fire by rolling is effective, especially since your clothes may be on fire on your back or lower body where you may not be immediately aware of it. If ground space is limited, cover yourself with a blanket to tamp out any flames, and douse yourself with water as soon as you can.

Additionally, always stay close to the floor during a fire; heat and smoke rise, and breathable air will normally be found at the floor-level, giving you a greater chance of escape before being overcome by smoke and toxic fumes.

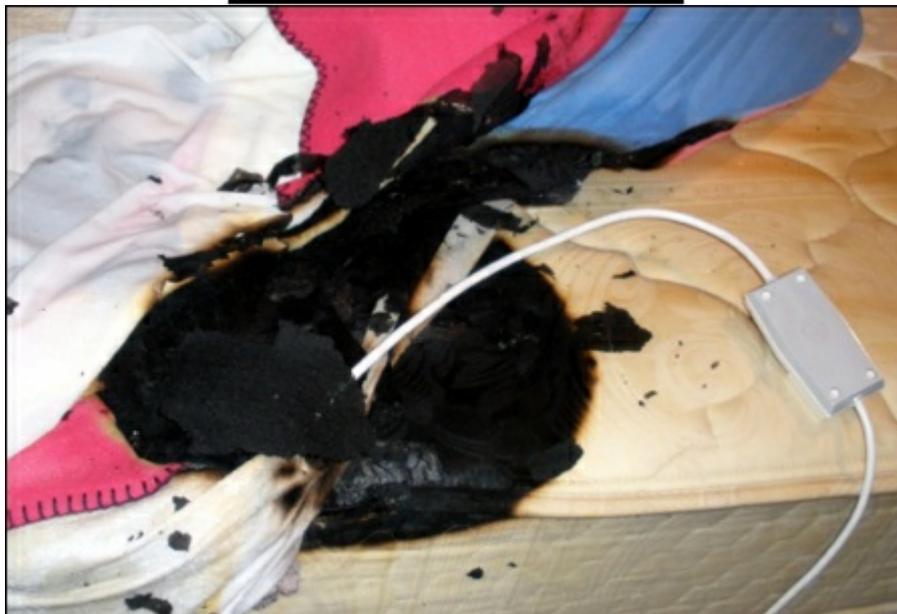
Also, before exiting a closed room, be sure to test the doorknob for heat before opening the door. A very hot doorknob indicates that fire could be lurking just outside; opening the door will feed the fire an added surge of oxygen, potentially causing an explosive backdraft that can be fatal.

## 8. *Know your local emergency number.*

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People of all ages need to know their emergency number (usually, it's 911). Posting it near the phone and putting it on speed-dial will save precious moments when the ability to think clearly may be compromised.

## More Tips



# Fire Safety for the Home

- Make sure your electrical system is updated, and that you have appropriate AFCI and GFCI receptacles. Have your system inspected by an InterNACHI inspector or a licensed electrician to make sure your electrical needs are not taxing your electrical system.
- Make sure you have smoke alarms and carbon monoxide detectors installed. Test them to make sure they're working properly, and change their batteries at least annually.
- Check to see that your house number is clearly visible from the street, and unobstructed by any tree branches or structural overhangs. If first-responders are called to your home to put out a fire, make sure they can find you.
- Be aware of lit candles. Never leave them unattended, and always blow them out when leaving home or going to bed. This is especially important during the holidays when candles are used as holiday decorations. Also, keep them out of the way of drapes and plants, and out of reach of children and especially pets, whose tails can accidentally knock over a candle or come into contact with its flame.
- Never use barbecue grills indoors, either for cooking or as a heat source. The carbon monoxide they emit cannot be adequately vented, and their flammable materials pose safety hazards. Also, do not use the oven to heat the indoors. Space heaters are safer and more energy-efficient. Ask your InterNACHI home inspector to perform an energy audit to find heat leaks, and to suggest low-cost ways to keep your home warm and comfortable during cold weather.
- Consider getting rid of your electric blanket. The fire hazards associated with them make the prospect of trading them in for a thick comforter or multiple blankets much less worrisome. When their embedded cords become bent, the internal wiring can break, causing them to short out and start an electrical fire.

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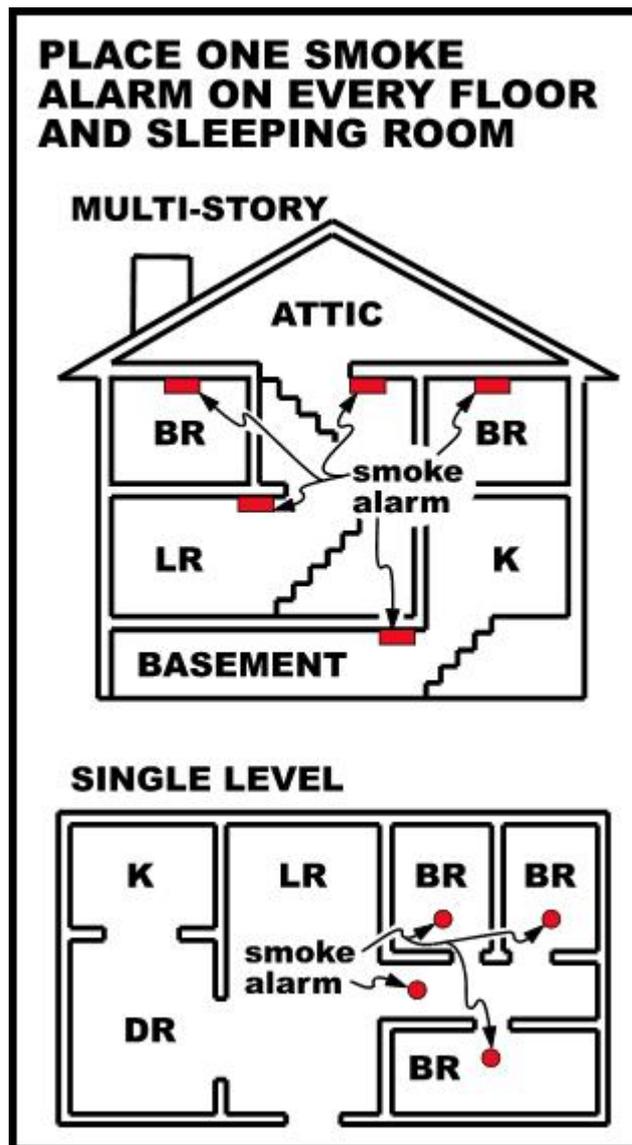
- Be extra-vigilant when using hot pads, hot plates, Bunsen burners and portable cooktops. They can overheat and burn the surface they're sitting on, or burn through a cup or pot sitting on top, which can lead to smoke and fire. Never leave these unattended, and always unplug (or extinguish) them when not in use.
- Unplug portable electronic devices and other small appliances when not in use. Coffeemakers, blow dryers and other devices we use daily still draw current when they're plugged in, even if they're turned off. A faulty device can cause an electrical fire that can be devastating. One family in Boulder, Colo., returned home one day to discover their house burned to the ground; the fire marshal discovered that the cause was a switched-off curling iron that was left plugged into the wall's receptacle. Get into the habit of unplugging, just to be safe.
- Use extension cords sparingly, and always unplug them when not in use. Some electrical devices work best when plugged directly into the wall's receptacle or outlet, especially if they have a ground wire (which you should never cut off). Devices plugged into extension cords can easily overheat (themselves or the extension cords), damaging wires within walls and weakening your electrical system, potentially causing an electrical fire. Always check for the UL-listed label on extension cords. Remember that they also pose a tripping hazard, which is another reason to minimize their use.
- Clean your clothes dryer's lint trap after each use. Your dryer should vent directly to the outdoors. Check to make sure that there are no obstructions in the vent hose, such as birds' nests, foliage or other debris. The vent should have a damper to keep wildlife and debris out, but it should not have a screen, which can trap combustibles, allowing them to accumulate, heat up, and possibly catch fire.

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- If you have a fireplace, remember to have it professionally inspected and cleaned periodically by a chimney sweep. Creosote buildup can cause a fire that may unexpectedly back into the living space. Make sure your damper is working properly, and that the chimney lining is in good condition. The next time your InterNACHI inspector inspects your roof, s/he can check for adequate flashing around the chimney, as well as its structural integrity. Make sure the fire is completely out before you leave the home. Keep all kindling and combustibles a safe distance away from the mouth of the fireplace. Make use of a screen at the hearth to prevent embers from escaping. And avoid burning green wood, which doesn't burn as evenly or safely as dry wood.

## **Smoke Alarms**

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All new residential construction requires the installation of smoke alarms, usually on each floor of the home, as well as outside each sleeping area. Many newer smoke alarms can also detect carbon monoxide. This silent and odorless killer is one of the primary causes of accidental death because family members can be fatally poisoned while sleeping.

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Smoke alarms come in two types. Photoelectric alarms can sense smoky and smoldering fires. Ionization alarms are quicker at detecting flames and fast-moving fire. Dual-sensor smoke alarms combine both these features, and are recommended by the USFA because it's impossible to predict the type of fire that may erupt in a home. There are also smoke alarms that vibrate and/or flash strobe lights to alert home dwellers who are vision-impaired or hard of hearing.

The leading U.S. manufacturer of residential smoke alarms, as well as home fire extinguishers, is Kidde. Their dual-sensor smoke alarms were the subject of a voluntary recall by the U.S. Consumer Product Safety Commission in the summer of 2009 because of a malfunction caused by an electrostatic discharge created during their installation, rendering them inoperable. Make sure that you install any portable smoke alarms and carbon monoxide detectors safely, and test them after installation. You can also ask your local fire department to do this for you.

Many smoke alarms are hard-wired into the home's electrical system, but may still have batteries for backup in the event of a power outage. They also typically have a test button. Make sure you test them once a month, and replace the batteries once a year. If you hear a chirping noise, this is a signal that the batteries are weak and need replacing.

Some smoke alarms have "nuisance" buttons. If you burn something that you're cooking and accidentally set off the alarm, you can press the nuisance button to turn it off. Remember not to actually disable the alarm; you may forget to reset it later. Simply clear the room of smoke instead.

## **Rebates and Discounts**

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Under most standard homeowners and even renters insurance policies today, having smoke alarms, carbon monoxide detectors and fire extinguishers in the home will qualify policyholders for rebates and discounts on their premiums. Some newer homes now have sprinkler systems, and various municipalities around the U.S. are mandating their installation, depending on the square footage of the home.

In summary, installing dual-sensor smoke alarms and carbon monoxide detectors, as well as taking some common-sense precautions and performing regular household maintenance, will help keep your family safe from the destructive and potentially lethal effects of a house fire. Schedule an inspection with your InterNACHI inspector to see where you can fortify your home against this threat.