



# Say Goodbye to Structural Fires

How you can help prevent fires in homes or apartment buildings, with just a few easy methods.

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# Introduction

It's every homeowner or property manager's worst nightmare: a home going up in flames. Even if you're lucky enough to escape with your life and health, you can still lose invaluable objects and keepsakes, not to mention an entire residence. Although structural fires can happen accidentally, there are still a number of risk factors that can raise the chances of a fire breaking out inside a building. Everything from reckless behavior with cigarettes to faulty electric heaters to simple forgetfulness can pose significant risks when it comes to structural fires. Whether you're an independent resident or the manager of an apartment complex, there are a number of preventative measures that you can, and should, take in order to minimize the risk of a damaging fire. Unlike natural disasters, fires can largely be prevented, and as the homeowner or property manager, it's up to you to be on the front line to firmly establish safety measures.



**Safety  
First**

*Let's examine some of the statistics and hazards of structural fires in both houses and apartment buildings, and take some time to go over ways to prevent these disasters from occurring.*



## Chapter 1

# The Stats

**S**tructural fires are not something to be taken lightly. It can be easy to think that it could never happen to you, but there are many ways that an individual could become a victim of a structural fire. If you're in a multi-tenant building, for example, it could be one of your neighbors who is careless with a cigarette or forgets to turn off their stove. In a family home, a curious child may knock over a burning candle – in an instant, you could become part of the statistics.

Structural fires can sometimes be due to faulty electrical wiring or malfunction. According to the National Fire Protection Association, from 2007 to 2011, U.S. fire departments responded to “an estimated annual average of 47,820 reported home structure fires involving electrical failure or malfunction.” The NFPA gives the fatality and damage tally at 455 civilian deaths, 1,518 civilian injuries and \$1.5 billion in property damage – all within four years.



All Property Management (property management network) provides some more dire statistics, this time on the threat of cooking fires. They write: “Most residential fires (40%) begin in the kitchen. In 2010, cooking was involved in about 156,400 fires, which caused 420 deaths, 5,310 injuries and \$993 million in property damage.” All of these numbers add up to serious consequences for both affected individuals and the involved property.



One of the other major causes of preventative fire deaths in the United States is smoking, including cigarettes, cigars, and pipes. The NFPA notes that in 2011, there were approximately 90,000 smoking-material related fires in the U.S., causing 540 civilian deaths, 1,640 civilian injuries, and \$621 million in property damage. Most tragically, this also includes the statistic that “one out of four fatal victims of smoking-material fires is not the smoker whose cigarette started the fire.” There are a lot of reasons to quit smoking in the home, but preventing a fire that could have fatal consequences should be at the top of the list.

Although the above three causes of fire are some of the most common occurrences, there are many more insidious ways that structural fires can happen – everything from malfunctioning washers and dryers, to neglected space heaters, to a candle left too close to a curtain. Both homeowners and property managers need to be aware of the many ways that structural fires can break out – understanding the risks is the first step for effective prevention.

## Chapter 2

# The Risks

**T**here's no question that the most valuable thing you could lose in a structural fire is a life, either your own or that of a loved one or tenant. In an instant, your life – and the life of your family or tenant – could be changed forever. Injuries due to burns or smoke inhalation are also a threat, and can have a long-lasting impact on one's health. In the unfortunate event that a fire should happen, have fire & emergency phone numbers handy, and keep all tenants or family members aware of proper evacuation procedures.

Second to personal health being at risk is the potential for property damage. A structural fire can cause damages into the millions, and can even lead to tenants being out of their homes for an extended period of time. If you don't have home insurance or renter's insurance, you could lose all of your possessions as well as your place of residence. Whether you're in a house or an apartment, a fire can quickly cause the destruction of your livelihood, and it may take you years to be able to get everything back in order. It's better to not take the risk – make sure you have up-to-date homeowner's or renter's insurance, and building managers should consider making renter's insurance a requirement, to protect all tenants from small mistakes that anyone could make.



There are a lot of valuable things you can lose in a structural fire, and in the aftermath, it can be obvious that with only a few preventative measures, the fire wouldn't have occurred. That's why it's so important to know what little – and large – things you can do to prevent structural fires, regardless of whether you're responsible for just yourself, your family, or an entire building full of people.



## Chapter 3

# The Prevention

**E**ven though a structural fire can be devastating, the good news is that they're easily preventable, if you take the time and care to be both cautious and prepared. A little bit of mindfulness can go a long way when it comes to preventing a fire from breaking out at home, and the few minutes you take to remember to check smoke detectors or turn off a space heater can be the difference between safety and a potential fire hazard.

*Here are some tips to help prevent structural fires from occurring:*



## Install fire alarms & smoke detectors

The number of dwellings without working alarms is staggering, and given the fact that they can save lives, it's necessary that proper fire alarms and smoke detectors are installed. According to the NFPA, the risk of dying in a reported home fire is cut in half in homes with working smoke detectors. For houses and apartments, smoke detectors ought to be in every bedroom, outside each sleeping area, and on every level of the structure and tested monthly, with batteries changed at least once per year for those with replaceable batteries. Smoke detectors should be replaced every 10 years. In houses and apartment buildings, it's also a good idea to encourage families and tenants to practice escape drills and choose the best route by which to exit a burning building.

# Keep an eye on your cooking

As the NFPA states, unattended cooking was the number-one contributing factor in structural fires from 2007-2011, with 67% of these fires caused by ignition of food materials. Never leave cooking food unattended, particularly if it's on high heat or near open flame, and always take special care if you're deep frying anything in hot oil. The grease can splatter on a stove range's cooking element and ignite in an instant. In addition, it's wise to purchase a home fire extinguisher to keep in the kitchen, and be sure you familiarize yourself with its use. If you're a building manager, prohibit barbecues on balconies – they can easily cause fires as well as smoke damage to other units.



## Check electrical outlets & wires frequently

Electrical outlets may power many of our appliances, but they can also be the source of dangerous electrical fires. The NFPA has a list of good preventative tips, including not running extension cords across doorways or under carpets, using tamper-resistant receptacles if you have children, and not overloading outlets or extension cords. Building managers ought to respond promptly to any reports of sparking or faulty wiring, and keep an up-to-date log of electricity issues in various apartment units. These problems should always be fixed by a quality repair service in order to ensure that they don't happen again.



# Keep an eye on the laundry room

If you're managing an apartment building with a laundry room, be sure to keep your washers and dryers clean. Although it sounds strange that a washing machine could cause a fire, they require a lot of electricity to run and, as mentioned above, any faulty wiring can spark open flames. As for dryers, clothing lint is highly flammable, and can easily catch fire due to the high amount of heat involved in running the machine. Be sure to clean the lint filter before or after each load of laundry. And at least once a year, clean lint out of the vent pipe. These same tips go for homeowners – always make sure to keep your washers and dryers serviced and clean, and don't hesitate to call for repairs if they seem to be sparking.



## Watch out for sources of heating

You would definitely know to be cautious around a fireplace – ensure that the chimney is clean, for example, and that all flames have been put out before going to sleep – but it's also smart to remember to turn off space heaters. These innocuous little sources of heat can be easily forgotten, especially if you've fallen asleep or have left your residence. Simply make it a habit to switch off space heaters, even if you're only leaving the room for a seemingly short amount of time. Nationwide (insurance company), also cautions to keep space heaters at least three feet from any flammable materials, as the heat can quickly cause combustion.

# Never leave open flames unattended

Although candles may look pretty, if they're improperly placed or simply forgotten about, they can be a dangerous hazard. If a candle is placed in a holder or on a surface that is unsteady, there's a high likelihood that it could topple over and ignite flammable fabrics like curtains or a rug. Also, always remember to extinguish candles before leaving a dwelling or going to bed at night. This will reduce the risk that an errant candle flame could spark a structural fire.



# Never smoke cigarettes in bed

Everyone has read at least one news story about a home or apartment fire caused by someone falling asleep with a cigarette in their hand. Beds and blankets are easily combustible, and the same can happen if a smoker dozes off on a couch. If you're going to light up a cigarette, make sure you do it safely (preferable in an outside environment – building managers should consider banning smoking inside apartment units) and have a clean ashtray handy for embers. Always take care when smoking cigarettes around combustible materials – it only takes a few stray sparks to cause a fire.

# Conclusion

A destructive fire can change everything for people living in a house or an apartment building. Whether it results in fatalities or injuries, or causes thousands of dollars in damage repairs, a structural fire can have dire consequences – but it can also be easily avoided. If you take the above tips to heart and keep reminding yourself – and others – to stay alert and be cautious around potential sources of fire, then the risk factors will be drastically reduced. When it comes to structural fires, a homeowner or building manager’s motto should always be “better safe than sorry”.

For more on fire protection and prevention, visit



<http://nationalfirefighter.com>

## Resources:

<http://www.nationwide.com/home-fire-safety.jsp>

<http://www.nfpa.org/safety-information/for-consumers/causes/smoking>

<http://www.nfpa.org/safety%20information/for%20consumers/causes/cooking.aspx>

<http://www.allpropertymanagement.com/blog/2013/01/02/fire-prevention-tips-for-landlords/>

<http://www.nfpa.org/safety-information/for-consumers/causes/electrical/electrical-safety-in-the-home/electrical-safety-tips>

