

HOME FIRE SAFETY TIPS

Candle Safety

Remember that a candle is an open flame. It can easily ignite any combustible nearby.

Facts and figures

- During 2002, an estimated 18,000 home fires started by candles were reported to public fire departments. These fires resulted in an estimated 130 civilian deaths, 1,350 civilian injuries and an estimated direct property loss of \$333 million. Homes include one- and two-family dwellings, apartments and manufactured housing.
- The estimated number of home candle fires was unchanged from 2001 to 2002. For the first time since 1991, the number of home candle fires has stabilized rather than increasing.
- Candle fires accounted for an estimated 5% of all reported home fires.
- Two-fifths (40%) of the home candle fires started in the bedroom, resulting in 30% of the associated civilian deaths.
- Reported home candle fires have more than tripled since the low of 5,500 in 1990.
- December had almost twice the number of home candle fires of an average month.
- Half (50%) of home candle fires occurred when some form of combustible material was left or came too close to the candle; Eighteen percent occurred after candles were left unattended, abandoned or inadequately controlled; Five percent were started by people (usually children) playing with the candle.
- Falling asleep was a factor in 12% of home candle fires and 25% of the home candle fire deaths.
- Christmas Day was the peak day of the year for home candle fires in 1999-2002. New Year's Day and Christmas Eve tied for second.

Source: National estimates based on NFIRS and NFPA survey.

Safety tips:

- Extinguish all candles when leaving the room or going to sleep.
- Keep candles away from items that can catch fire, like clothing, books and curtains.
- Use candleholders that are sturdy, won't tip over easily, are made from a material that cannot burn, and are large enough to collect dripping wax.
- Keep candles and all open flames away from flammable liquids.

Home Safety Tips (Cont.)

- Keep candlewicks trimmed to one-quarter inch and extinguish taper and pillar candles when they get to within two inches of the holder. Votives and containers should be extinguished before the last half-inch of wax starts to melt.
- During power outages, avoid carrying a lit candle. Use flashlights.

Carbon Monoxide Poisoning

Although the popularity of carbon monoxide (CO) alarms has been growing in recent years, it cannot be assumed that everyone is familiar with the hazards of carbon monoxide poisoning in the home. Often called the silent killer, carbon monoxide is an invisible, odorless, colorless gas created when fuels (such as gasoline, wood, coal, natural gas, propane, oil, and methane) burn incompletely. In the home, heating and cooking equipment that burn fuel are potential sources of carbon monoxide. Vehicles or generators running in an attached garage can also produce dangerous levels of carbon monoxide.

Facts & figures

- According to the National Safety Council, 200-300 unintentional-injury deaths a year are due to carbon monoxide poisoning.
- The dangers of CO exposure depend on a number of variables, including the victim's health and activity level. Infants, pregnant women, and people with physical conditions that limit their body's ability to use oxygen (i.e. emphysema, asthma, heart disease) can be more severely affected by lower concentrations of CO than healthy adults would be.
- A person can be poisoned by a small amount of CO over a longer period of time or by a large amount of CO over a shorter amount of time.

Symptoms of CO poisoning

CO enters the body through breathing. CO poisoning can be confused with flu symptoms, food poisoning and other illnesses. Some symptoms include shortness of breath, nausea, dizziness, light-headedness or headaches. High levels of CO can be fatal, causing death within minutes. The concentration of CO, measured in parts per million (ppm) is a determining factor in the symptoms for an average, healthy adult.

Home Safety Tips (Cont.)

CO concentration (parts per million)	Symptoms
50	No adverse effects with 8 hours of exposure.
200	Mild headache after 2-3 hours of exposure.
400	Headache and nausea after 1-2 hours of exposure.
800	Headache, nausea, and dizziness after 45 minutes; collapse and unconsciousness after 1 hour of exposure.
1,000	Loss of consciousness after 1 hour of exposure.
1,600	Headache, nausea, and dizziness after 20 minutes of exposure.
3,200	Headache, nausea, and dizziness after 5-10 minutes; collapse and unconsciousness after 30 minutes of exposure.
6,400	Headache and dizziness after 1-2 minutes; unconsciousness and danger of death after 10-15 minutes of exposure.
12,800	Immediate physiological effects, unconsciousness and danger of death after 1-3 minutes of exposure.

Source: NFPA's Fire Protection Handbook, 19th Edition.

Safety tips in the home

- Install CO alarms (listed by an independent testing laboratory) inside your home to provide early warning of accumulating CO. CO alarms should be installed in a central location outside each separate sleeping area. If bedrooms are spaced apart, each area will need a CO alarm.
- Call your local fire department's non-emergency number to find out what number to call if the CO alarm sounds. Post that number by your telephone(s). Make sure everyone in the household knows the difference between the fire emergency and CO emergency numbers (if there is a difference).
- Test CO alarms at least once a month and replace CO alarms according to the manufacturer's instructions.
- CO alarms are not substitutes for smoke alarms. Know the difference between the sound of smoke alarms and CO alarms.
- Have fuel-burning heating equipment (fireplaces, furnaces, water heaters, wood and coal stoves, space or portable heaters) and chimneys inspected by a professional every year before cold weather sets in.

Home Safety Tips (Cont.)

- When purchasing new heating and cooking equipment, select products tested and labeled by an independent testing laboratory.
- When using a fireplace, open the flue for adequate ventilation.
- Never use your oven to heat your home.
- When buying an existing home, have a qualified technician evaluate the integrity of the heating and cooking systems, as well as the sealed spaces between the garage and house.

Note: Although not recommended, if you are using an electrical generator indoors due to power failure, be sure you use caution while operating. Be sure you open windows to allow proper ventilation since CO can build up within the house. Also, never fill the fuel tank while the generator's motor is hot.

Safety tips outside the home

- If you need to warm a vehicle, remove it from the garage immediately after starting it. Do not run a vehicle, generator, or other fueled engine or motor indoors, even if garage doors are open. Make sure the exhaust pipe of a running vehicle is not covered with snow.
- During and after a snowstorm, make sure vents for the dryer, furnace, stove, and fireplace are clear of snow build-up.
- Only use barbecue grills – which can produce CO – outside. Never use them in the home, garage or near building openings.
- When camping, remember to use battery-powered lights in tents trailers, and motor homes.

If your CO alarm sounds

- Immediately move to a fresh air location and call for help. Remain at the fresh air location until emergency personnel say it is ok.
- If the audible trouble signal sounds, check for low batteries or other trouble indicators.

Children Playing with Fire

Children playing with fire cause hundreds of deaths and thousands of injuries each year. Preschoolers are most likely to start these fires, typically by playing with matches and lighters, and are most likely to die in them.

Facts & figures*

- In 2002, children playing with fire started an estimated 13,900 structure fires that were reported to U.S. fire departments, causing an estimated 210 civilian deaths, 1,250 civilian injuries and \$339 million in direct property damage.

Home Safety Tips (Cont.)

- The figures for 2002 structure fires, civilian deaths and civilian injuries are the lowest ever recorded.
- Most of the people killed in child-playing fires are under 5, and such fires are the leading cause of fire deaths among preschoolers.
- Roughly two out of every three child-playing fires -- and three out of four associated deaths and injuries -- involve matches or lighters.
- The child-playing fire problem has been smaller, relative to population, in Canada and much smaller in Japan.
- Children also start fires by playing with candles, fireworks, stoves and cigarettes.
- Among fatal home fires started by children playing, seven out of 10 involve children igniting bedding, mattresses, upholstered furniture or clothing.
- Just over half of child playing fires in the home start in a bedroom.
- Children who start fires may be children in crisis, with the fires acting as cries for help from stressful life experiences or abuse, according to studies of fire-setting behavior.
- As of 2002, deaths in child-playing home structure fires had declined by roughly half since 1994, when the child-resistant lighter standard went into effect.

**From NFPA's Children Playing with Fire, by John R. Hall, Jr., March 2005.*

Safety tips

- Store matches and lighters out of children's reach and sight, up high, preferably in a locked cabinet.
- Never use lighters or matches as a source of amusement for children. They may imitate what you do.
- If your child expresses curiosity about fire or has been playing with fire, calmly but firmly explain that matches and lighters are tools for adults only.
- Use only lighters designed with child-resistant features. Remember child-resistant does not mean child proof.
- Teach young children to tell an adult if they see matches or lighters, and teach school-age children to bring any matches or lighters to an adult.
- Never leave matches or lighters in a bedroom or any place where children may go without supervision.
- If you suspect your child is intentionally setting fires or unduly fascinated with fire, get help. Your local fire department, school, or community counseling agency can put you in touch with trained experts.

Cooking Safety

Cooking fires are the #1 cause of home fires and home fire injuries. Most cooking equipment fires start with the ignition of common household items (e.g., food or grease, cabinets, wall coverings, paper or plastic bags, curtains, etc.).

Facts & figures*

- In 2001, there were 117,100 reported home structure fires associated with cooking equipment, resulting in 370 deaths, 4,290 injuries and \$453 million in direct property damage.
- Unattended cooking is the leading cause of home cooking fires.
- Three in every 10 reported home fires start in the kitchen – more than any other place in the home.
- Two out of three reported home cooking fires start with the range or stove.
- Electric ranges or stoves have a higher risk of fires, injuries and property damage, relative to usage, than gas ranges or stoves, but gas ranges or stoves have a higher risk of fire deaths.

**From NFPA's Home Cooking Fire Patterns and Trends, January 2005*

Safety tips:

- Always use cooking equipment tested and approved by a recognized testing facility.
- Never leave cooking food on the stovetop unattended, and keep a close eye on food cooking inside the oven.
- Keep cooking areas clean and clear of combustibles (e.g. potholders, towels, rags, drapes and food packaging).
- Keep children away from cooking areas by enforcing a “kid-free zone” of three feet (1 meter) around the stove. Keep pets from underfoot so you do not trip while cooking. Also, keep pets off cooking surfaces and nearby countertops to prevent them from knocking things onto burner.
- Wear short, close fitting or tightly rolled sleeves when cooking. Loose clothing can dangle onto stove burners and catch fire.
- Never use a wet oven mitt, as it presents a scald danger if the moisture in the mitt is heated.
- Always keep a potholder, oven mitt and lid handy. If a small fire starts in a pan on the stove, put on an oven mitt and smother the flames by carefully sliding the lid over the pan. Turn off the burner. Don't remove the lid until it is completely cool. Never pour water on a grease fire and never discharge a fire extinguisher onto a pan fire, as it can spray or shoot burning grease around the kitchen, actually spreading the fire.

Home Safety Tips (Cont.)

- If there is an oven fire, turn off the heat and keep the door closed to prevent flames from burning you and your clothing.
- If there is a microwave fire, keep the door closed and unplug the microwave. Call the fire department and make sure to have the oven serviced before you use it again. Food cooked in a microwave can be dangerously hot. Remove the lids or other coverings from microwave food carefully to prevent steam burns.

Dryer Safety

Clothes dryers accounted for the largest share of appliance and tool fires between 1994-1998.

Facts & figures

- There were 14,300 clothes dryer fires in U.S. homes in 1998, resulting in 19 deaths, 312 injuries and \$67.7 million in direct property damage.
- The leading cause of home clothes dryer fires was lack of maintenance (30%), followed by unidentified or unknown-type mechanical failure (11%) and part failure, leak or break (10%).
- Clothing (not on a person) was the most common source of ignition in home clothes dryer fires, followed by dust, fiber or lint.

Source: NFPA's U.S. Home Product Report: Appliances and Equipment Involved in Fires, January 2002.

Safety tips

- Do not operate the dryer without a lint filter. Clean lint filters before or after each use and remove accumulated lint from around the drum.
- Make sure that the dryer is plugged into an outlet suitable for its electrical needs as overloaded electrical outlets can result in blown fuses or tripped circuit breakers.
- Turn the dryer off when leaving the home.
- Keep the dryer area clear of combustibles (i.e., boxes or clothing).
- Dryers should be installed and serviced by a professional.
- Have gas-powered dryers inspected by a professional regularly to ensure that the gas line and connection are intact.

Electrical Circuit-Interrupters

Protective devices capable of responding to overloads and short circuit, such as circuit breakers, have been available for a number of years. Newer technologies now provide enhanced protection from arcing or ground-faults, which may prevent fires or shock.

AFCIs (arc-fault circuit-interrupters)

When an electrical switch is opened or closed, an arc, or discharge of electricity across a circuit, occurs. Unintentional arcs can occur at loose connections or where wires or cords have been damaged. Such arcs can lead to high temperatures and sparking, possibly igniting combustibles. AFCIs (arc-fault circuit-interrupters) protect against fire by continuously monitoring the electrical current in a circuit and shutting off the circuit when unintended arcing occurs. These devices are designed to discriminate between unintended arcing and the type of arcing that occurs when a switch is operated.

GFCIs (ground-fault circuit-interrupters)

A ground-fault is an unintentional electrical path between a source of electrical current and a grounded surface. Electrical shock can occur if a person comes into contact with an energized part. GFCIs (ground-fault circuit-interrupters) can greatly reduce the risk of shock by immediately shutting off an electrical circuit when that circuit represents a shock hazard (i.e., a person comes in contact with a faulty appliance together with a grounded surface). GFCIs can be installed in a circuit breaker panel board or directly in a receptacle outlet.

Facts and figures

- **AFCI** installation is required by the *National Electrical Code*® (*NEC*) in bedrooms of new residential construction (effective as of January 1, 2002). Bedrooms were selected as the first area in which to implement this requirement because of a history of fires there.
- **GFCI** installation is required by the *NEC* for receptacles in kitchens, bathrooms, outdoor areas, basements and garages in new residential construction because of a history of shock hazards in these areas.

Safety tips

- All AFCIs and GFCIs, whether circuit-type or breaker-type, should be installed by a qualified electrician.
- Test AFCIs and GFCIs after installation and once a month thereafter to make sure they are working properly.

Home Safety Tips (Cont.)

- Replace defective AFCIs and GFCIs immediately. A defective device may create a false sense of security to those who do not know that it is non-functional.

Choose AFCIs and GFCIs that carry the label of an independent testing laboratory and always follow the manufacturer's instructions.

Electrical Safety

In 1999-2002, electrical distribution equipment accounted for one out of 12 reported home fires and one out of 14 associated civilian deaths.

Electrical distribution equipment includes all components of the building electrical distribution system as well as light fixtures, lamps, light bulbs, cords and plugs.

Facts & figures

- There were an estimated 32,000 home structure fires per year associated with electrical distribution equipment fires between the years 1999-2002. These fires resulted in 220 civilian deaths, 950 civilian injuries and \$674 million in direct property damage per year.
- Wiring, switches, receptacles and outlets were the equipment involved in ignition in 45% of the reported home structure fires involving electrical distribution equipment.
- Extension cord fires outnumbered fires beginning with attached or unattached power cords by more than two-to-one.

Source: NFPA's One-Stop Data Shop

Safety tips:

- Replace or repair loose or frayed cords on all electrical devices.
- Avoid running extension cords across doorways or under carpets.
- In homes with small children, electrical outlets should have plastic safety covers.
- Follow the manufacturer's instructions for plugging an appliance into a receptacle outlet.
- Avoid overloading outlets. Consider plugging only one high-wattage appliance into each receptacle outlet at a time.
- If outlets or switches feel warm, shut off the circuit and have them checked by an electrician.
- When possible, avoid the use of "cube taps" and other devices that allow the connection of multiple appliances into a single receptacle.
- Place lamps on level surfaces, away from things that can burn and use bulbs that match the lamp's recommended wattage.

Fire Safety for the Deaf or Hard-of-Hearing

Smoke alarms save lives. But those who are deaf or hard of hearing cannot depend on the sound of the regular alarm to alert them to a fire. There are now a variety of smoke alarms on the market that combine sound and strobe lights to alert those with limited hearing that there is a fire in the home.

Facts & figures

- **Two-fifths of reported home fires occur in the small number of homes with no smoke alarms.** As of 2004, 24 of every 25 (96%) U.S. homes with telephones had at least one smoke alarm. However, four of every ten home fires reported to U.S. fire departments still occurred in the now small share of homes without these devices. In one-quarter of reported fires in smoke alarm-equipped homes, the devices didn't work.
- **Smoke alarm failures usually result from missing, disconnected, or dead batteries.** When smoke alarms don't work, it is usually because the batteries are missing, disconnected or dead. People are most likely to remove or disconnect batteries because of nuisance activations. Smoke alarms should be tested every month to ensure the batteries and the units themselves are still working. Replaceable batteries should be replaced in accordance with the manufacturer's instructions, at least once every year.

Source: NFPA's U.S. Experience With Smoke Alarms and Other Fire Detection/Alarm Equipment report and national estimates reported to U.S. municipal fire departments based on NFIRS and NFPA survey.

Safety tips

- Consider installing a smoke alarm that uses a flashing light, vibration and/or sound to alert people to a fire emergency. The majority of fatal fires occur when people are sleeping, and because smoke can put people into a deeper sleep, it is important to have the necessary early warning of a fire to ensure that they wake up.
- Be sure that the smoke alarm you buy carries the label of an independent testing laboratory.
- Keep a communications device nearby. If you use a TTY/TTD device, place it close to the bed so that communication with emergency personnel is possible should fire or smoke trap you in your room.

Heating

Facts & figures

- In 2002, heating equipment was involved in an estimated 45,500 home structure fires reported to U.S. fire departments. These fires caused an estimated 220 civilian fire deaths, 990 civilian fire injuries, and \$449 million in direct property damage.
- These fires fell 14% from the 2001 total to the lowest point since data collection began. Deaths from these fires fell 12% and injuries fell 11%.
- Fireplaces or chimneys rank first in the number of fires among types of heating equipment. Most of these were caused by creosote build-up.
- Portable and fixed space heaters, including wood stoves, caused a disproportionate share of the home heating fire deaths. Space heaters were involved in 25% of the home heating fires but 74% of the deaths.
- The leading cause of space heater fires was combustibles too close to the heater, except for wood stoves, where the leading cause was creosote build-up, and fixed electric space heaters, where the leading cause was equipment unattended.

Source: Fire statistics were derived from NFPA's annual fire department survey. Detailed statistics were derived by NFPA from the U.S. Fire Administration's National Fire Incident Reporting System (NFIRS) and NFPA's fire department survey.

Safety tips:

- When buying a new space heater, make sure it carries the mark of an independent testing laboratory, and be sure to have fixed space heaters installed by a qualified technician, according to manufacturer's instructions or applicable codes. Or make sure a qualified technician checks to see that the unit has been properly installed.
- Keep or maintain a 36-inch (1-meter) clearance between space heaters and anything that can burn.
- Portable space heaters should be turned off every time you leave the room or go to bed.
- Have any gas-fueled heating device installed with proper attention to ventilation. If un-vented gas space heaters are used in bedrooms or bathrooms, make sure they are small and well mounted. NFPA codes prohibit use of liquefied petroleum gas heaters with self-contained fuel supplies.
- Have wood and coal stoves, fireplaces, chimneys, chimney connectors and all other solid-fueled heating equipment inspected annually by a professional, and

Home Safety Tips (Cont.)

cleaned as often as inspections suggest. Use only wood that is properly seasoned to reduce creosote build-up.

- When burning wood in fireplaces or wood stoves, it is important to use properly seasoned wood. The U.S. Department of Energy cautions that green wood has more moisture and is likely to smolder, leading to more creosote build-up. They recommend moisture content of 20-25%, noting that wood that is too well seasoned may also result in creosote build-up.
- Make sure your fireplace has a sturdy screen to prevent sparks from flying into the room. Allow fireplace and woodstove ashes to cool before disposing in a metal container.
- Test smoke alarms monthly; install a carbon monoxide alarm in a central location outside each sleeping area.

Home Escape Planning

Fire can spread rapidly through your home, leaving you as little as two minutes to escape safely once the alarm sounds. Your ability to get out depends on advance warning from smoke alarms, and advance planning a home fire escape plan that everyone in your family is familiar with and has practiced.

Facts & figures

- Only one-fifth to one-fourth of households (23%) have actually developed and practiced a home fire escape plan to ensure they could escape quickly and safely.
- In 2004, there were an estimated 395,500 reported home structure fires and 3,190 associated civilian deaths in the United States.
- One-third of American households who made an estimate thought they would have at least 6 minutes before a fire in their home would become life threatening. The time available is often less. And only 8% said their first thought on hearing a smoke alarm would be to get out!

Source: Harris Interactive Survey, Fall 2004, conducted for NFPA , and NFPA's Fire Loss in the United States During 2004 - Abridged report

Home Safety Tips (Cont.)

Your ability to get out depends on advance warning from smoke alarms and advance planning.

- Pull together everyone in your household and make a plan. Walk through your home and inspect all possible exits and escape routes. Households with children should consider drawing a floor plan of your home, marking two ways out of each room, including windows and doors. Also, mark the location of each smoke alarm. For easy planning, download NFPA's escape planning grid at: (<http://www.nfpa.org/assets/files/PDF/FPWgrid03.pdf>). This is a great way to get children involved in fire safety in a non-threatening way.
- Make sure that you have at least one smoke alarm on every level of your home.
- Everyone in the household must understand the escape plan. When you walk through your plan, check to make sure the escape routes are clear and doors and windows can be opened easily.
- Choose an outside meeting place (i.e. neighbor's house, a light post, mailbox, or stop sign) a safe distance in front of your home where everyone can meet after they've escaped. Make sure to mark the location of the meeting place on your escape plan.
- Go outside to see if your street number is clearly visible from the road. If not, paint it on the curb or install house numbers to ensure that responding emergency personnel can find your home.
- Have everyone memorize the emergency phone number of the fire department. That way any member of the household can call from a neighbor's home or a cellular phone once safely outside.
- If there are infants, older adults or family members with mobility limitations make sure that someone is assigned to assist them in the fire drill and in the event of an emergency. Assign a backup person too, in case the designee is not home during the emergency.
- If windows or doors in your home have security bars, make sure that the bars have quick-release mechanisms inside so that they can be opened immediately in an emergency. Quick-release mechanisms won't compromise your security - but they will increase your chances of safely escaping a home fire.
- Tell guests or visitors to your home about your family's fire escape plan. When staying overnight at other people's homes, ask about their escape plan. If they don't have a plan in place, offer to help them make one. This is especially important when children are permitted to attend "sleepovers" at friends' homes.
- Be fully prepared for a real fire: when a smoke alarm sounds, get out immediately. Residents of high-rise and apartment buildings may be safer "defending in place."
- Once you're out, stay out! Under no circumstances should you ever go back into a burning building. If someone is missing, inform the fire department dispatcher when you call. Firefighters have the skills and equipment to perform rescues.

Home Safety Tips (Cont.)

Putting your plan to the test

- Practice your home fire escape plan twice a year, making the drill as realistic as possible.
- Allow children to master fire escape planning and practice before holding a fire drill at night when they are sleeping. The objective is to practice, not to frighten, so telling children there will be a drill before they go to bed can be as effective as a surprise drill.
- It's important to determine during the drill whether children and others can readily waken to the sound of the smoke alarm. If they fail to awaken, make sure that someone is assigned to wake them up as part of the drill and in a real emergency situation.
- If your home has two floors, every family member (including children) must be able to escape from the second floor rooms. Escape ladders can be placed in or near windows to provide an additional escape route. Review the manufacturer's instructions carefully so you'll be able to use a safety ladder in an emergency. Practice setting up the ladder from a first floor window to make sure you can do it correctly and quickly. Children should only practice with a grown-up, and only from a first-story window. Store the ladder near the window, in an easily accessible location. You don't want to have to search for it during a fire.
- Always choose the escape route that is safest – the one with the least amount of smoke and heat – but be prepared to escape through toxic smoke if necessary. When you do your fire drill, everyone in the family should practice crawling low on their hands and knees, one to two feet above the ground. By keeping your head low, you'll be able to breathe the "good" air that's closer to the floor.
- It's important to practice crawling on your hands and knees, not your bellies, as some poisons produced by smoke are heavier than air and settle to the floor.
- Closing doors on your way out slows the spread of fire, giving you more time to safely escape.
- In some cases, smoke or fire may prevent you from exiting your home or apartment building. To prepare for an emergency like this, practice "sealing yourself in for safety" as part of your home fire escape plan. Close all doors between you and the fire. Use duct tape or towels to seal the door cracks and cover air vents to keep smoke from coming in. If possible, open your windows at the top and bottom so fresh air can get in.

Smoking Material-Related Fires

Smoking materials (i.e., cigarettes, cigars, pipes, etc.) are the leading cause of fire deaths in the United States. Roughly one of every four-fire death's in 2001 was attributed to smoking materials.

Facts & figures

- In 2001, there were an estimated 31,200 smoking-material fires in structures, 830 civilian deaths, 1,770 civilian injuries and \$386 million in property damage. Of the fire deaths, 770 occurred in the home.
- In Canada there were 3,800 fires in 1999 associated with smoking materials. These fires caused 120 civilian deaths, 260 civilian injuries and direct property damage of \$58 million Canadian (\$39 million U.S.).
- The most common material first ignited in home smoking material-related fires was trash, followed by mattresses and bedding and upholstered furniture.

Source: NFPA's Smoking-Material Fire Problem report (by John R. Hall, Jr., Nov. 2004)

Safety tips

- Encourage smokers to smoke outside.
- Keep smoking materials away from anything that can burn (i.e., mattresses, bedding, upholstered furniture, draperies, etc.).
- Never smoke in bed or when you are drowsy, intoxicated or medicated.
- Use large, deep, non-tip ashtrays to prevent ashes from spilling onto furniture and check them frequently. Do not rest ashtrays on sofas or chairs.
- Completely douse butts and ashes with water before throwing them away as they can smolder in the trash and cause a fire.
- Smoking should not be allowed in a home where oxygen is in use.
- Whenever someone has been smoking in the home, always check on, between and under upholstery and cushions and inside trashcans for butts that may be smoldering.
- When smokers visit your home, ask them to keep smoking materials, lighters and matches with them so young children do not touch them.
- Keep matches and lighters up high, out of children's sight and reach (preferably in a locked cabinet).
- If you smoke, choose fire-safe cigarettes. They are less likely to cause fires.

Turkey Fryers

NFPA discourages the use of turkey fryers except by properly trained professionals using professional-quality equipment. Turkey fryers use a substantial quantity of cooking oil at high temperatures, and units currently available for home use pose a significant danger that hot oil will be released at some point during the cooking process. The use of turkey fryers by consumers can lead to devastating burns, other injuries and the destruction of property. NFPA urges those who prefer fried turkey to seek out professional establishments, such as grocery stores, specialty food retailers, and restaurants for the preparation of the dish.

- Hot oil may splash or spill at any point during the cooking process, when the fryer is jarred or tipped over, the turkey is placed in the fryer or removed, or the turkey is moved from the fryer to the table. Any contact between hot oil and skin could result in serious injury. Any contact between hot oil and nonmetallic materials could lead to serious damage.
- Fryers designed for outdoor use and using a stand are considered particularly vulnerable to upset or collapse, followed by a major spill of hot oil. Newer countertop units using a solid base appear to reduce this particular risk. NFPA does not believe that consumer education alone can make the risks of either type of turkey fryer acceptably low because of the large quantities of hot oil involved and the speed and severity of burn likely to occur with contact.
- In deep-frying, oil is heated to temperatures of 350 degrees Fahrenheit or more. Cooking oil is combustible, and if it is heated beyond its cooking temperature, its vapors can ignite. This is a fire danger separate from the burn danger inherent in the hot oil. Overheating can occur if temperature controls, which are designed to shut off the fryer if the oil overheats, are defective, or if the appliance has no temperature controls.
- Propane-fired turkey fryers are designed for outdoor use, particularly for Thanksgiving, by which time both rain and snow are common in many parts of the country. If rain or snow strikes exposed hot cooking oil, the result can be a splattering of the hot oil or a conversion of the rain or snow to steam, either of which can lead to burns. Use of propane-fired turkey fryers indoors to avoid bad weather is contrary to their design and dangerous in its own right. Also, moving an operating turkey fryer indoors to escape bad weather is extremely risky. Fires have occurred when turkey fryers were used in a garage or barn or under eaves to keep the appliance out of the rain.
- The approximately 5 gallons of oil in these devices introduce an additional level of hazard to deep fryer cooking, as does the size and weight of the turkey, which must be safely lowered into and raised out of the large quantity of hot oil. Many turkeys are purchased frozen, and they may not be fully thawed when cooking begins. As with a rainy day, a defrosting turkey creates the risk of contact between hot cooking oil and water, which can mean an oil splatter or a cloud of hot steam.

Home Safety Tips (Cont.)

- Use of the electric turkey fryers introduces a burn hazard to the home because of close quarters and a particular danger to children and others who are gathered for a festive occasion.
- In order to be considered acceptably safe, a turkey fryer would have to be designed to reduce the risk of hot oil release to a negligible level at every stage of the cooking process. Some of the newer electric turkey fryers, meant for use inside the home, reportedly include such safety features as a sturdy base, an adjustable thermostat, a built-in timer, a drain valve for the oil, and automatic shut-off in case of tipping. These are welcome developments in the area of safety, but they leave unchanged the primary scenarios of harm – splashing of hot oil if the fryer tips over, splashing of hot oil during insertion and removal of the turkey, splattering or steam release if hot oil contacts water in any of the ways previously described, or an overflow of the cooking oil because the user did not measure the liquid displacement of the turkey.

NFPA continues to believe that turkey fryers, as currently designed, are not suitable for acceptably safe use by even a well-informed and careful consumer. Consumers may find turkey fryer packaging that displays independent product safety testing labels. NFPA is familiar with the details of these test standards and does not believe that they are sufficiently comprehensive regarding the different ways in which serious harm can occur, and, in some cases, regarding the different parts of the turkey fryer that need to be tested.

Source Materials: National Fire Protection Association (NFPA) Official Website:
www.nfpa.org

Should you have any questions on home fire safety or the contents of this document, please feel free to contact:

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