

Natural Disasters: Fire and Wildfire

Definition and Characteristics:

Each year, more than 4,000 Americans die and more than 25,000 are injured in fires, many of which could be prevented. Direct property loss due to fires is estimated at \$8.6 billion annually. To protect yourself, it is important to understand the basic characteristics of fire. Fire spreads quickly; there is no time to gather valuables or make a phone call. In just two minutes, a fire can become life-threatening. In five minutes, a residence can be engulfed in flames. Heat and smoke from fire can be more dangerous than the flames. Inhaling the super-hot air can sear your lungs. Fire produces poisonous gases that make you disoriented and drowsy. Instead of being awakened by a fire, you may fall into a deeper sleep. Asphyxiation is the leading cause of fire deaths, exceeding burns by a 3 to 1 ratio.

If you live in an area where flammable vegetation is abundant, your residence could be vulnerable to wildfires. A wildfire is any unwanted and unplanned fire burning in forest, shrub, or grass. These fires are usually triggered by lightning or human negligence, primarily from campfires, discarding lit cigarettes, burning debris, or using matches or fireworks, but any fire may be the result of intentional arson or an explosive device. All fires are affected by environmental factors present at the site.

Terminology:

National Fire Danger Rating System	A uniform fire danger rating system that focuses on the environmental factors that control the moisture content of fuels: Low (Green) – Fuels do not ignite readily from small firebrands, although a more intense heat source, such as lightning, may start fires. Moderate (Blue) – Fires can start from most accidental causes, but with the exception of lightning fires in some areas, the number of starts is generally low. Fires are not likely to become serious, and control is relatively easy. High (Yellow) – All fine dead fuels ignite readily and fires start easily from most causes. Unattended brush and campfires are likely to escape. Fires spread rapidly and may become serious. Very High (Orange) – Fires start easily from all causes, and immediately after ignition, spread rapidly and increase quickly in intensity. Fires burning in light fuels may quickly develop high-intensity characteristics. Extreme (Red) – Fires start quickly, spread furiously, and burn intensely. All fires are potentially serious. Development into high-intensity burning will usually be faster and occur from smaller fires than in the very high danger class above.
Fire Weather Watch	Current and developing weather conditions are likely to influence fire ignition, behavior, and suppression.
Fire Triangle	The 3 components needed for any fire – heat, oxygen, and fuel.

Burning Ban	A declared ban on open-air burning within a specified area, usually due to heightened fire danger.
Safety Zone	An area cleared of flammable materials (fuel) and used to prevent or escape from fire.

Public Information / Recommended Actions:

Before	<p>Make a plan: Be alert to changing weather conditions. Listen to NOAA Weather Radio or local radio or television newscasts for the latest information. Plan escape routes and practice them with your family. Teach family to stay low to the floor when escaping from a fire. Sleep with your bedroom door closed.</p> <p>Prepare your home:</p> <ul style="list-style-type: none"> • Install smoke alarms on every level of your residence, outside bedrooms on the ceiling or high on the wall (4 to 12 inches from ceiling), at the top of open stairways, at the bottom of enclosed stairs, and near, but not in, the kitchen. Test and clean them once a month and replace batteries at least once a year. Replace detectors every 10 years. • Install ABC-type fire extinguishers in home and teach family members how to use them. Consider installing an automatic fire sprinkler system in your home. Ask your local fire department for a fire safety inspection. • Make sure windows are not nailed or painted shut. Consider escape ladders if your residence has more than one level. • Flammable Materials: Clean out storage areas and do not let trash accumulate. Never use flammable liquids indoors, or smoke near them. Store flammable liquids in approved containers in well-ventilated storage areas. Discard all rags or materials that have been soaked in flammable liquids. Insulate chimneys and place spark arresters on top. Create a 30-100 foot safety zone around your home by clearing out flammable vegetation. • Heat Sources: Be careful when using alternative heating sources. Check with your local fire department on using kerosene heaters. Fill kerosene heaters outside. Place heaters at least three feet away from flammable materials. Make sure the floor and nearby walls are properly insulated. Use only the type of fuel designated for your unit and follow manufacturer's instructions. Store ashes in a metal container outside and away from your residence. Keep open flames away from walls, furniture, drapery, and flammable items. Keep a screen in front of the fireplace. Have heating units and chimneys inspected and cleaned annually by a professional. • Smoking: Keep matches and lighters up high, away from children, and, if possible, in a locked cabinet. Never smoke in bed or when drowsy or medicated. Provide smokers with deep, sturdy ashtrays. Douse butts with water before disposal. • Electrical Wiring: Have wiring checked by an electrician. Inspect extension cords for frayed or exposed wires or loose plugs. Make sure outlets have cover plates and no exposed wiring. Make sure wiring does not run under rugs, over nails, or across high-traffic areas. Do not overload extension cords or outlets; use only UL-approved units with built-in circuit breakers.
--------	--

	<ul style="list-style-type: none"> • Burning: Follow local laws and bans. Before burning debris, obtain a permit from authorities, and have a garden hose or fire extinguisher on hand. Do not leave fire unattended and douse it completely.
During	<p>Structure fire:</p> <ul style="list-style-type: none"> • Check closed doors for heat before you open them. Use the back of your hand to feel the top of the door, the doorknob, and the crack between the door and door frame before you open it. Never use the palm of your hand or fingers to test for heat, as injury here could impair your ability to escape by using ladders or crawling. • If door is hot: Do not open. Escape through a window. If you cannot escape, hang a white or light-colored sheet outside the window, alerting fire fighters to your presence. • If door is cool: Open slowly and ensure fire and/or smoke is not blocking your escape route. If your escape route is blocked, shut the door immediately and use an alternate escape route, such as a window. If clear, leave immediately through the door and close it behind you. Be prepared to crawl. Smoke and heat rise, and the air is clearer and cooler near the floor. Crawl low under any smoke to your exit - heavy smoke and poisonous gases collect first along the ceiling. Close doors behind you as you escape to delay the spread of the fire. Stay out once you are safely out; do not re-enter. Call 9-1-1. • If your clothes catch on fire: Stop, drop, and roll - until the fire is extinguished. Running only makes the fire burn faster. <p>Wildfire:</p> <ul style="list-style-type: none"> • If advised to evacuate, do so immediately. Choose a route away from the fire hazard. Wear sturdy protective clothing. Tell someone when you left and where you are going. Follow advice of authorities. Watch for changes in speed and direction of wind, smoke, and fire. <p>Do the following only if wildfire threatens your home and time permits:</p> <ul style="list-style-type: none"> • Shut off gas at the meter. Turn off propane tanks. • Seal attic and ground vents with pre-cut plywood or commercial seals. • Place combustible patio furniture inside. • Connect garden hose to outside taps. Place lawn sprinklers on the roof and near above-ground fuel tanks. Wet the roof. Wet or remove shrubs within 15 feet of home. • Gather fire tools such as a rake, axe, handsaw or chainsaw, bucket, and shovel. • Back your car into the garage or park it in an open space facing the direction of escape. Shut doors and roll up windows. Leave the key in the ignition and the car doors unlocked. • Close garage windows and doors, but leave them unlocked. Disconnect automatic garage door openers. • Open fireplace damper. Close fireplace screens. • Close windows, vents, doors, blinds or noncombustible window coverings, and heavy drapes. Remove flammable drapes and curtains. • Move flammable furniture into the center of the residence.

	<ul style="list-style-type: none">• Close all interior doors and windows to prevent drafts.• Place valuables that will not be damaged by water in a pool or pond.• Provide for animals as in Natural Disasters: General Guidance.
After	<ul style="list-style-type: none">• If you are with a burn victim, or are a burn victim yourself, call 9-1-1. Cool and cover burns to reduce chance of further injury or infection.• Use extreme caution when re-entering damaged buildings. Hot spots can flare up unexpectedly. If you detect heat or smoke when entering a damaged building, evacuate immediately.• Listen to news reports for information and instructions from authorities.