FIRE

Fire is the sixth leading unintentional cause of injury and death in the United States. Fire ranks as the highest cause of death for children under the age of 15 at home.

The dangers that fires pose, include:

- Asphyxiation: Asphyxiation is the leading cause of death in a fire, by a 3-to-1 ratio over burns.
- Heat: A fully developed room fire has temperatures over 1,100 degrees Fahrenheit.
- Smoke: Fire generates black, impenetrable smoke that blocks the vision, stings the eyes, and clogs the lungs. It may be impossible to navigate through such smoke.

FIRES IN THE HOME

Roughly 85 percent of all fire deaths occur where people sleep, such as in homes, dormitories, barracks, or hotels. The majority of fatal fires occur when people are less likely to be alert, such as nighttime sleeping hours.

Nearly all home and other building fires are preventable, even arson fires. The majority of arson fires are caused by juveniles, who often respond to counseling, and the rest can be deterred in a number of ways. No fire is inevitable.

In 2000, 3,420 people died in reported home fires in the United States—about 9 people per day. In addition, thousands of people were injured in home fires, many with severe burns.

Fire victims are disproportionately children or the elderly. Two out of every five fires that kill young children are started by children playing with fire. Approximately 900 senior citizens die in fires annually.

FIRE (CONTINUED)

Every family fire plan should include:

- Smoke alarms on every level of the home and near all sleeping areas.

- Two escape routes from every room in the home. Escape ladders should be a consideration for sleeping areas on upper floors. These ladders should be stored near windows.

- Practice the escape plan at least twice each year. Practice getting out both day and night. Practice escapes should include low-crawl escapes, ensuring that all family members' heads are one to two feet above the floor. As part of escape planning, select a safe area outside the home for the family to gather after escaping the fire. Ensure that all know to meet at that place so, when firefighters arrive, they can be notified quickly of family status.

- Practice alerting family members by yelling "Fire!" several times. In a real fire, this alert may help family members escape.

- Learn the fire department's emergency number, especially if the community does not have 9-1-1 service. Make sure that all family members know to escape the fire first, then call the fire department from a neighbor's home.

It is important to discuss with the entire family what to do in a fire. Every family member needs to know what to do in case the entire family is not together when a fire occurs. Also, awareness helps to reduce fear and ensures that all family members know what to do.

If you see a fire or hear the smoke alarm, you should:

- Yell "Fire!" several times and exit quickly. Never use an elevator when escaping a fire. Other points to remember include:

  - If escaping through smoke, crawl low, under the smoke.
  - If escaping through a closed door, feel the door with the back of the hand, as well as the space between the door and its frame and the doorknob before opening the door. Never open a door that feels hot.
  - If smoke, heat, or flames block exit routes, stay in the room with the door closed. Open the window a few inches at the top and bottom for ventilation, and hang a sheet outside the window so that responders can see it when they arrive. If possible, seal around doors and vents with wet towels, sheets, or clothes to help keep smoke from the room.

- Go to the agreed upon meeting place, then send one person to call the fire department. Gathering at the meeting place first will quickly indicate who is outside and allow family members to advise firefighters immediately when they arrive.

FIRE (CONTINUED)

It is impossible to escape, you should:

- Stop up areas where smoke could come in using wet towels, sheets, or clothes under doors and in vents.
- Call the fire department and tell them where you are—even if the fire department has already been called.
- Open windows slightly at top and bottom to allow smoke to exit and fresh air to enter the room.
- Stay low and near a window to breathe fresh air.
- Wave a bright-colored cloth at the window to signal the fire department.

To prevent fires you should:

- Conduct a home hazard hunt. Many items and conditions around the home can present fire hazards. Taking time to look for and eliminate hazards will reduce the risk.
- Inspect wood stoves and chimneys annually. Burning wood leaves creosote deposits, which are flammable, in the firebox, flue, and chimney. These buildups must be removed professionally to minimize the risk of fire.
- Purchase heaters only if they have been laboratory tested and approved. Follow the manufacturer's directions for use. Keep blankets, clothing, curtains, furniture, and any other flammable items at least three feet away from heat sources. Plug heaters directly into a wall socket, and unplug them when they are not in use.
- Keep matches and lighters away from children. Children are fascinated by fire and will play with matches and lighters if they are available.
- Check electrical wiring, and replace frayed extension cords, exposed wires, or loose plugs. Ensure that all outlets have cover plates, and avoid overloading outlets or extension cords.
- Keep combustible materials away from the stove, including towels, clothing, curtains, bags, boxes, and other appliances. Combustible materials near stoves can catch fire quickly while the cook's attention is elsewhere.

These are only a few suggestions for preventing fires. Additional suggestions, including how to select and use fire extinguishers, will be covered in Unit 2, Fire Safety.

FIRE (CONTINUED)

WILDFIRES

There are three classes of wildfires:

- A surface fire is the most common type of fire and burns along the floor of a forest, moving slowly and killing or damaging trees.
- A ground fire is usually started by lightning and burns on or below the forest floor in the humus layer down to the mineral soil.
- Crown fires spread rapidly by wind and move quickly by jumping along the tops of trees.

Wildfires often begin unnoticed and that many fires can spread quickly, igniting brush, trees, and homes.

Because more people are choosing to make their homes in woodland settings in or near forests, rural areas, or remote mountain sites, a greater percentage of the population is becoming vulnerable to the hazards of wildfire.

More than four out of every five forest fires are started by people. Negligent human behavior, such as smoking in forested areas or improperly extinguishing campfires, is the cause of many forest fires.

Improper design, combustible materials and landscaping, and lack of attention to weed abatement in woodland residential areas contribute to the hazard to humans and animals.

Many of the strategies for wildfire preparedness are the same as for fires in the home, and that developing a family fire escape plan will be helpful for wildfires as well as fires in the home. In the case of wildfires, some additional strategies are required.

You should:

- Keep a garden hose that is long enough to reach any area of the home and other structures. Buy a ladder that is high enough to reach the roof.
- If a pool, lake, or stream is available, consider obtaining a portable gasoline-powered water pump.
- Equip chimneys and stovepipes with spark arresters.
- Keep fire tools handy. Fire tools include shovels, rakes, axes, chain or handsaws, buckets, and one or more fire extinguishers.
- Use proper building and landscape design. Wildland fire experts recommend that flammable vegetation be cleared to a distance of at least 30 feet around the home.

FIRE (CONTINUED)

Additional strategies for wildfire preparedness include:

- Marking all driveway entrances so that firefighters are aware that the home is there and can find it quickly during a fire.

- Following all local burning laws. Never burn during dry weather or within 75 feet of a structure or combustibles. Never leave a fire unattended, not even a cigarette.

Despite best efforts, wildfires will still occur.

There are several measures that you should take inside the home to prevent damage from wildfire.

Keep in mind the following measures:

- Listen for emergency information on radio or television stations or EAS. If advised to evacuate, do so immediately. Delay increases the risk of being trapped by the fire and can interfere with fire department response.

- Confine pets to one room or arrange for them to stay with a friend or relative.

- Move flammable furniture to the center of the home, away from windows and sliding glass doors.

- Remove flammable drapes and curtains. Close venetian blinds and noncombustible window treatments.

- Close all doors and windows to reduce air flow.

If trapped by a wildfire, you should try to find a body of water to crouch in. If possible, cover the head and upper body with wet clothing. If a body of water is not accessible, look for shelter in a cleared area or within a rock bed. Breathe the air close to the ground, preferably through a wet cloth.

FIRE (CONTINUED)

After a wildfire, you should:

- Use caution when reentering the area after a wildfire. Hazards may still exist, including hot spots, which can flare up without warning.
- Inspect the roof immediately and extinguish sparks or embers that could reignite the fire.
- Have propane or heating oil tanks inspected by the supplier before using the system. Tanks may shift or fall from their stands or fuel lines may have kinked or weakened. Heat from the fire may have caused the tank to warp or bulge (especially if the tank is not vented).
- Check the stability of trees around the home. They may have lost stability as a result of fire damage. Also, identify and mark ash pits (created by burned trees and stumps). Falling into a hot ash pit can cause serious burns.
- If there is no power, check the main breaker. Fires may cause breakers to trip. If the breakers are on and power is still not available, call the utility company.

You should take precautions while cleaning the property following a fire by:

- Wetting down debris to reduce dust in the air.
- Using a particulate mask with nose clip and coveralls. Wear leather gloves to protect the hands.
- Checking with local authorities before disposing of household hazardous materials.