



## Community Awareness And Preparedness



# FIRE

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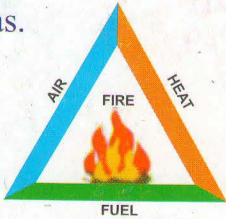
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## How do Fires start?

Fire is chemical reaction involving rapid oxidation or burning of a fuel. It needs three elements to occur:

**FUEL** - Fuel can be any combustible material - solid, liquid or gas. Most solids and liquids become a vapor and gas before they will burn.



**OXYGEN** - the air we breathe is about 21% oxygen. Fire only needs an atmosphere with at least 16% oxygen.

**HEAT** - Heat is the energy necessary to increase the temperature of the fuel to a point where sufficient vapors are given off for ignition to occur.

**CHEMICAL REACTION** - A chemical reaction can occur when the three elements of fire are present in the proper conditions and proportions. This in turn starts a fire.



## Causes of Fires

Cooking is the leading cause of home fires & injuries in the home. Cooking fires often result from unattended cooking and human error, rather than mechanical failure of stoves or ovens.

- Careless smoking is the leading cause of fire deaths. Smoke alarms and smolder-resistant bedding and upholstered furniture are significant fire deterrents.
- Heating is the second leading cause of residential fires and ties with arson as the second leading cause of fire deaths. However, heating fires are the larger problem in single family homes than in apartments. Unlike apartments, the heating systems in single family homes are often not professionally maintained.
- Arson is the third leading cause of residential fires and the second leading cause of residential fire deaths. In commercial properties, arson is the major cause of deaths, injuries, and loss.





## **Fire Do's and Don't's Throughout the House**

Don't be one of who die in fires every year. Follow these easy tips to stay safe in our home.

- Do install a smoke detector on every level.
- Do plan your escape routes in case fire does strike.

### **Bedroom**

- DON'T smoke in bed.
- DON'T place heaters within three feet of flammable materials.
- DON'T use heater to dry clothes.
- DON'T use extension cores with portable heaters.
- DON'T leave heaters unattended or sleep while they are on.
- Do unplug heaters after you turn them off.

### **Living/family room**

- DON'T put ashtrays on chairs or sofa arms.
- DON'T staple electrical cords to walls or otherwise pierce the insulation.
- DON'T leave unattended cigarettes burning in the ashtrays.
- DON'T run electrical cord under rugs, over nails or in high traffic areas.
- Do clean chimneys yearly.



## Kitchen

- DON'T leave food unattended on the stove. If you must leave the kitchen, take a utensil along as a reminder.
- DON'T cook while wearing sleeves that can dangle near burners.
- DON'T let grease build upon your stove or oven.
- DON'T overload electrical outlets with appliances.
- DON'T let curtains hang near a stove or range.
- DO check the kitchen before bed. ven off? Coffee pot unplugged?

## Electrical Safety

- No flammable materials (such as furniture clothes, curtains or towels) within three feet of space heaters or stoves.
- No flammable liquids stored near ignition sources.
- No frayed or cracked electrical cores.
- No electrical cord under rugs, over nails or in high traffic area.
- No overload electrical outlets or extension cords.
- No electrical cords near sink or stove.



## Fire Safety - On - the - Job

- Keep flammables away from ignition sources.



- Utilize flammable storage cabinets
- Know your chemical properties (check the MSDS for flammable/combustible information)
- Do not block fire extinguishers with equipment
- Utilize those with electrical expertise/installations/assistance.
- Do not overload outlets-use a track plug
- Practice good housekeeping techniques in the lab/office/work area

# DISASTER