

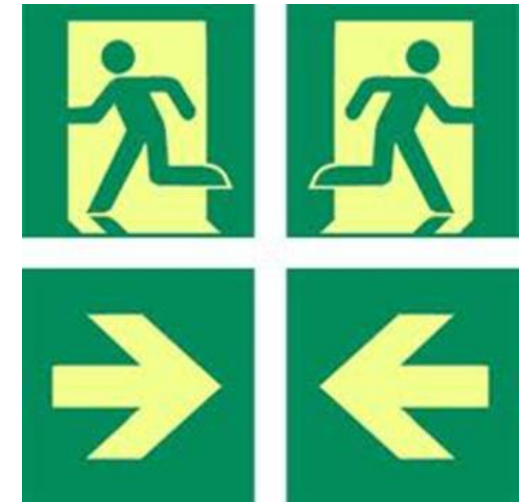


Fire Safety & Prevention Training

& Fire Extinguisher Use

Training Objectives:

- Goals of a Fire Prevention Plan
- Fire Prevention Strategy
 - ✓ Housekeeping Issues
 - ✓ Flammable and Combustible Liquids
- Fire Detection
- Fire Suppression/Fire Extinguishers
- Emergency Evacuation



Fire Prevention Goals

Life Safety – primary goal of fire safety efforts is to **protect building occupants from injury and to prevent loss of life.**

Property Protection – secondary goal of fire safety is to **prevent property damage.**



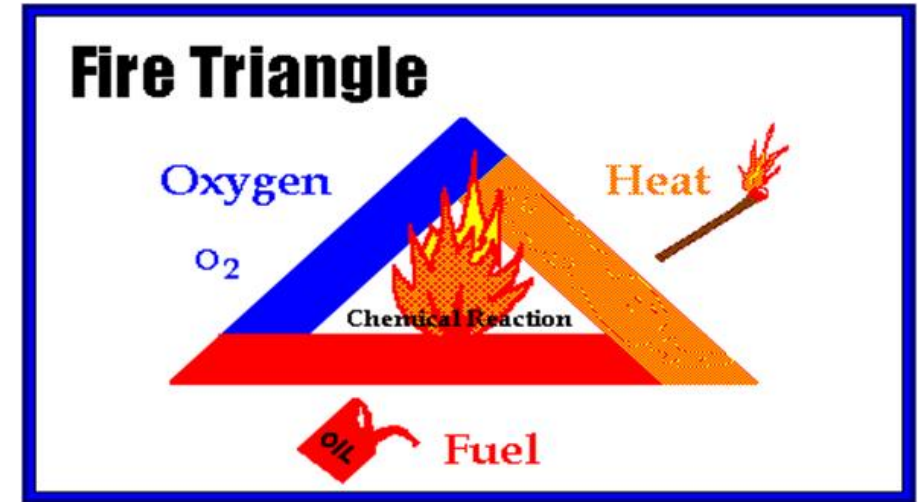
The Strategy of Preventing a Fire

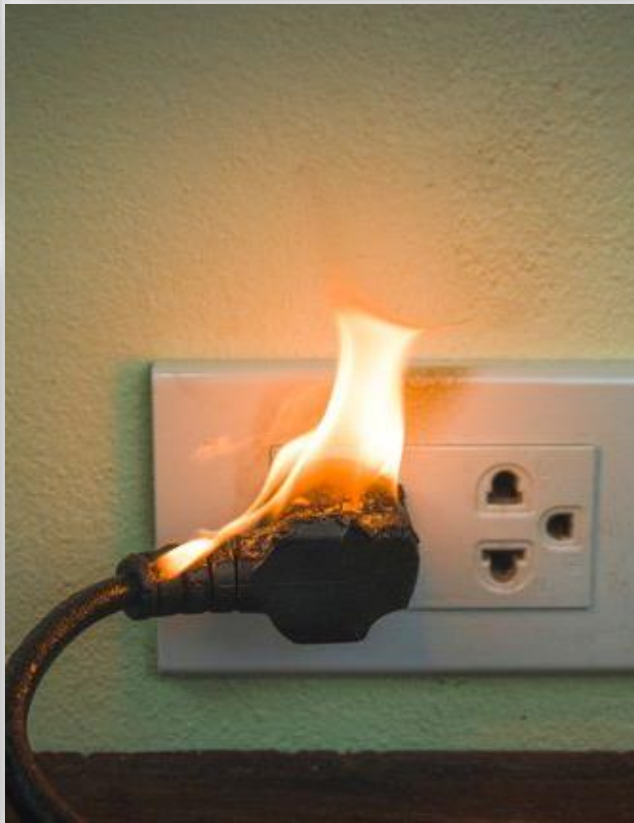
A fire needs 4 things to ignite and maintain combustion:

- ✓ Fuel
- ✓ Heat
- ✓ Oxygen
- ✓ Chemical Reaction

If all four things are not present in sufficient quantities, a fire will not ignite or will not be able to sustain combustion.

The basic strategy of fire prevention is to control or isolate sources of fuel and heat in order to prevent combustion.





Functions of Fire Protection

❖ **Fire Prevention** - eliminating or restricting the likelihood of fire.

Common Hazards:

- ✓ Housekeeping
- ✓ Smoking
- ✓ Clothes Dryers
- ✓ Flammable Liquids
- ✓ Electrical
- ✓ Heat Producing Devices
- ✓ Cooking

❖ **Fire Detection** - detecting a fire when it starts

❖ **Fire Suppression** - extinguishing a fire after it starts

Housekeeping

Good housekeeping habits are an important part of a safe workplace.

Why?

- To reduce amounts of flammable and combustible materials.
- To reduce ignition hazards.
- To ensure safe emergency evacuation of occupants.
- To allow for quick emergency response.





General Housekeeping Guidelines

- Work areas, aisles, walkways, stairways, and equipment should be kept clear of loose materials, trash, scraps, etc.
- **Never block aisles, fire exits, emergency equipment, or alarm pull stations with equipment or materials.**
- Avoid build up of combustible trash and waste such as paper, wood, cardboard, etc.
- Clean up all spills such as grease, oil, or water immediately.
- Keep use and storage of flammable and combustible materials to a minimum.

Storage Guidelines

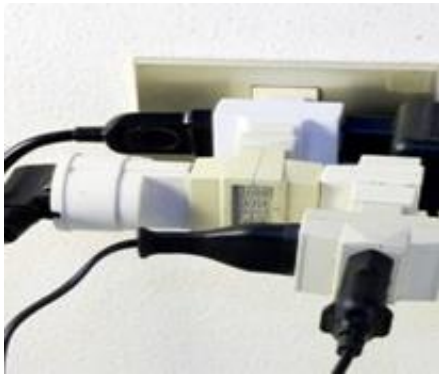
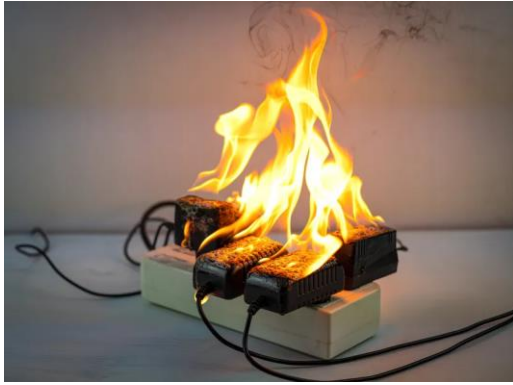
- No storage is allowed in corridors, or stairwells.
- Storage must not exceed 18" below sprinkler heads or smoke detectors.
- All storage must be at least 3' from electrical panels and maintain at least 3' clearance from heating surfaces and lighting fixtures.
- Storage of combustible materials in mechanical rooms is prohibited.



Flammable and Combustible Liquids

- Flammable and combustible liquids are fuel sources for fires and are present in almost every workplace.
- It is important to understand what materials are in your work area.
 - ✓ Paints
 - ✓ Gasoline
- The volatility of flammable and combustible liquids requires special storage and handling requirements.





Electrical

- Electrical hazards are the cause of numerous workplace fires each year.
- Faulty electrical equipment produces heat and sparks that serve as ignition sources in the presence of flammable and combustible materials.
 - ✓ Overloading circuits
 - ✓ Use of unapproved electrical devices
 - ✓ Damaged or worn wiring

Electrical – Extension Cords

- Extension cords are not approved for permanent use.
- Regularly check electrical cords for defaults such as frays, brittleness, or broken wires.
- Never place electrical cords in high traffic areas where they can be damaged by being stepped on or run over by equipment or put through windows, doors, or anywhere where they could be damaged easily.





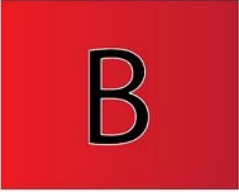

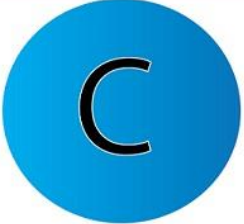





Fire Protection Equipment

- **Smoke Detectors** – battery units
- **Smoke Detection System** – connected to a building fire alarm system
- **Fire Alarm Systems** – automatically or manually links the sensing of fire conditions and notification of people in and outside the building.
 - **Manual** – fire alarm pull box
 - **Automatic** – senses & activates
- **Automatic Sprinkler Systems**
- **Cooking Protection** – dry chemical hood



ABC's of Fire Extinguishers

(Classifications & Symbols)

		Ordinary Combustibles	Wood, Paper, Cloth, Etc.
		Flammable Liquids	Grease, Oil, Paint, Solvents
		Live Electrical Equipment	Electrical Panel, Motor, Wiring, Etc.
		Combustible Metal	Magnesium, Aluminum, Etc.
		Commercial Cooking Equipment	Cooking Oils, Animal Fats, Vegetable Oils

How to Use a Fire Extinguisher



<https://youtu.be/58naKHqCWo> (2 min)

How to Use a Fire Extinguisher

Remember to
P.A.S.S.



Guidelines for Fighting Fires



Fires are dangerous and you should always be certain that you will not endanger yourself or others when attempting to put out a fire!

For this reason, when a fire is discovered...

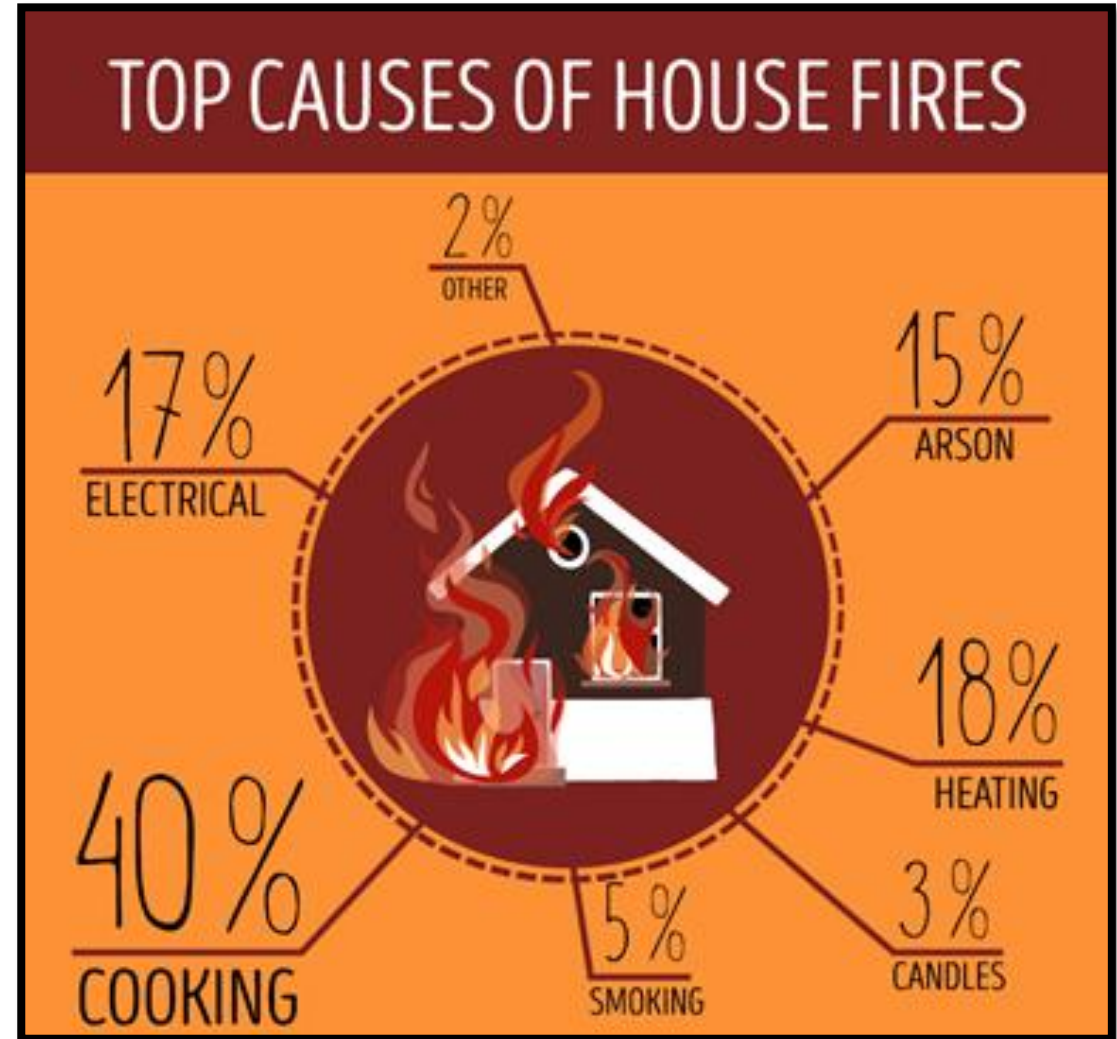
- ✓ Assist any person in immediate danger to safety, if it can be accomplished without risk to yourself.
- ✓ Call 911 OR a building alarm system will alert 911.
- ✓ When exiting, pull fire alarm (if no building alarm system) and close the door.

If the fire is small, you may attempt to use an extinguisher to put out but only after ensuring everyone is out of danger and 911 notified.

ALWAYS POSITION YOURSELF WITH AN EXIT AT YOUR BACK!

Never fight a fire if...

- 🔥 You don't know what is burning
- 🔥 The fire appears too large to handle with one extinguisher
- 🔥 The fire is spreading rapidly beyond the spot where it started
- 🔥 You don't have an adequate or appropriate fire extinguisher
- 🔥 You might inhale toxic smoke
- 🔥 Your instincts tell you not to



Emergency Escape Routes

EXIT ROUTES:

- Continuous, unobstructed exit path from any place in worksite to safety
- Exit access, exit, exit discharge (clear pathway away from building) must be:
 - Clearly marked
 - Well lit
 - Appropriate width
 - Unobstructed
- Get low 'under' any smoke & cover mouth/nose
- Shut doors behind you
- Stop, Drop, Roll



When Fire Strikes, Get Out and Stay Out



<https://youtu.be/CuNGr4qSIZO> (17 min)