

Fire Extinguisher Safety Introduction One Hour Credit

This course is designed to introduce you to types of fires, considerations before using a fire extinguisher, types of fire extinguishers and how to use a fire extinguisher. It will consist of this print page (which has links to two videos which need to be viewed), review questions, next steps and the test code (which you will need to take and score a minimum of 80 percent) for one hour of credit.

TYPES OF FIRES



Class A fires are fires in ordinary combustibles such as wood, paper, cloth, trash, and plastics.

Class B fires are fires in flammable liquids such as gasoline, petroleum oil, and paint. Also included are flammable liquids such as propane and butane. Class B fires do not include fires involving cooking oils and grease.

Class C fires are fires involving energized electrical equipment such as motors, transformers, and appliances. Remove the power and the Class C fire becomes one of the other classes of fire.

Class D fires are fires in combustible metals such as potassium, sodium, aluminum and magnesium.

Class K fires are fires in cooking oils and greases such as animal fats and vegetable fats.



Before using a fire extinguisher, be sure...

- the fire department has been called
 - you have announced the fire to alert others
- occupants have begun evacuating or are leaving the structure
 - the fire is small and not spreading
- you know how to operate the fire extinguisher
 - the fire won't block your unobstructed fire route



When it's time to use a Fire Extinguisher, just remember PASS!

Pull the pin

Aim the nozzle or hose at the base of the fire from the recommended safe distance.

Squeeze the operating lever to discharge the fire extinguishing agent.

Sweep-Starting at the recommended distance. Sweep the nozzle or hose from side to side until the fire is out. Move forward or around the fire area as the fire diminishes. Watch the area in case re-ignition.

TYPES OF FIRE EXTINGUISHERS

Dry Chemical fire extinguishers extinguish the fire primarily by interrupting the chemical reaction of the fire. Today's most widely used type of fire extinguisher is the multipurpose dry chemical that is effective on Class A, B and C fires. This agent also works by creating a barrier between the oxygen element and the fuel element on Class A fires. Ordinary dry chemical is for Class B & C fires only. It is important to use the correct extinguisher for the type of fuel! Using the incorrect agent can allow the fire to reignite after apparently being extinguished successfully.

Water and Foam fire extinguishers extinguish the fire by taking away the heat element of the fire. Foam agents also separate the oxygen element from the other elements. Water extinguishers are for Class A fires only - they should not be used on Class B or C fires. The discharge stream could spread the flammable liquid in a Class B fire or could create a shock hazard on a class C fire. Foam extinguishers can be used on Class A & B fires only. They are not for use on Class C fires due to the shock hazard.

Carbon dioxide fire extinguishers extinguish the fire by taking away the oxygen element of the fire and also by removing the heat with a very cold discharge. Carbon dioxide can be used on Class B & C fires. They are usually ineffective on Class A fires.

Wet Chemical is a new agent that extinguishes the fire by removing the heat of the fire and prevents re-ignition by creating a barrier between the oxygen and fuel elements. Wet chemical or Class K extinguishers were developed for modern, high efficiency deep fat fryers in commercial cooking operations. Some may also be used on Class A fires in commercial kitchens.

Halogenated or Clean Agent extinguishers include the halon agents as well as the newer and less ozone depleting halocarbon agents. They extinguish the fire by interrupting the chemical reaction of the fire. Clean agent extinguishers are primarily for Class B & C fires. Some larger clean agent extinguishers can be used on Class A, B and C fires.

Dry Powder extinguishers are similar to dry chemical except that they extinguish the fire by separating the fuel from the oxygen element or by removing the heat element of the fire. However, dry powder extinguishers are for Class D or combustible metal fires, only. They are ineffective on all other classes of fires.

Water Mist extinguishers are a recent development that extinguishes the fire by taking away the heat element of the fire. They are an alternative to the clean agent extinguishers where contamination is a concern. Water mist extinguishers are primarily for Class A fires, although they are safe for use on Class C fires as well.

Consider the following questions BEFORE and as you **watch** this OSHA video tutorial:

<https://www.youtube.com/watch?v=fkQdmsgyHLo&t=22s>

- Are portable fire extinguishers intended to be used for fighting large fires?
- Could using the wrong type of fire extinguisher make the situation worse?
- Basically, is anything that leaves an ash after it burns a Class A fire material?
- Is it true that CO2 extinguishers, which are often used on Class B fire materials, should only be used where there is plenty of natural ventilation?
- Are Class D extinguishers used on combustible metals that actually burn?
- Should a Class K extinguisher be useful in kitchen fires?
- Are most extinguishers designed for use on two or more classes of fire material?
- Can some small sizes of fire extinguishers be emptied in as little as six to ten seconds?
- Is it important to maintain a safe escape path, retreat immediately if conditions get out of control and watch for flare-ups afterwards?
- Should an extinguisher, even though not used, be turned in if the pin has been pulled?

A quick summary of some of what you have learned today is found in this video as you **watch** it:

<https://www.youtube.com/watch?v=BLjoWjCrDqg>

- What is the 'safe distance' in this video?
- What is the website they recommend you go to for more fire safety information?

Next steps, with your supervisor's approval, before or after you complete the online test...

- Review the fire evacuation routes for your facility.
- Locate, identify and become familiar with the fire extinguishers in your facility.

Test Access Code: PATH3000

Resources:

www.femalifesafety.org

www.usfa.fema.gov

www.oshatraining.com

www.fireextinguisher.com

National Fire Protection Association