

Fire Safety In Health Care Facilities



A Self-Teaching Fire & Life Safety Program

Portland Fire & Rescue

Fire Prevention Division
Public Education Office



Introduction

Goal:

To ensure that employees are knowledgeable in fire prevention and emergency response in health care facilities.

Objectives:

Employer will:

1. Develop a fire and life safety emergency plan (see Portland Fire & Rescue's Emergency Operations Guide) which contains suggestions to increase each tenant's opportunity for surviving an emergency and how to produce a plan that complies with the provisions of applicable codes. <http://www.portlandonline.com/fire/index.cfm?c=44518&a=194657>
2. Provide training for all employees.

Employees will be able to:

1. Describe the emergency procedures for their facility, in case of fire.
2. Identify common fire hazards in health care facilities and how to prevent them.
3. Demonstrate the operation of fire and life safety systems (manual pull alarms, fire doors, calling 9-1-1 for help, etc.).
4. Describe the RACE response system used in health care facilities to ensure patient safety.
5. Demonstrate how to correctly use a fire extinguisher.

Materials:

- Handouts, obtained from Portland Fire & Rescue, such as: "Developing Your Own Fire and Life Safety Emergency Plan", "10 Tips for Fire Safety", "Portable Fire Extinguishers", and "Home Fire Safety Checklist".
- Videos (checked out for up to 3 days available through the Portland Fire & Rescue or purchased by the health care facility), such as "Employee Evacuation: Action for Survival" and "Fire Extinguisher Safety."

The fire record for health care facilities is good; however, there is the potential for large loss of life because of the concentration of large numbers of vulnerable individuals in one place. It is important that employees are well-versed in the Fire and Life Safety Emergency Plan for their facility. When an emergency happens, it will be their quick actions that can make the difference in the outcome.

Lesson Outline

Keeping the interest of staff members during fire safety training can be a challenge – especially when you are reviewing information which employees have received in the past. Involving employees in the program is a good way to maintain their interest, while increasing their knowledge level on fire and life safety. Also, try limiting the program to 60 minutes or less in length.



Getting Started:

- Make sure all employees have a copy of your facility's written fire and life safety emergency plan, as well as a copy of "10 Tips For Fire Safety", "Portable Fire Extinguishers", and "Home Fire Safety Checklist". These handouts are available through Portland Fire & Rescue's Public Education Office.
- Review the employee's objectives.
- Understand how important it is to get to know your Fire and Life Safety Emergency Plan. Familiarize yourself with the emergency procedures before you need to follow them. Be able to react quickly whenever a fire is discovered or the alarm sounds.
- Review the actions to be taken if an employee discovers a fire. Use the R-A-C-E acronym (Rescue-Alarm-Confine-Extinguish) to help people remember the response procedure as easily as possible.
- Discuss your facility's engineered fire and life safety emergency systems. Does everyone know what and where they are, and how they work? Which of the following does your facility have, and what is their importance in a fire... smoke detectors, manual pull alarms, fire doors, alarm systems, sprinklers, fire extinguishers, etc.?
- Discuss hazards particular to your facility. What can you identify and what precautions can be taken?

USE THE FOLLOWING SCENARIOS TO STIMULATE DISCUSSION ON EMERGENCY RESPONSE PROCEDURES

1. One hour into your shift, the fire alarm activates. Describe what you may be doing at that time and how you would react to the alarm. What would be the first thing you would do? Would you initiate the RACE response or try to evacuate?
2. You discover a fire in the utility room that is already too big to try and extinguish. Describe what your reaction would be... what would be your response, and in what order?
3. Are there special situations in your facility that you need to be aware of in case of a fire emergency? Describe any special situations that would require a response other than that generally described for staff (non-ambulatory individuals, visitors unfamiliar with evacuation procedures, patients with special medical needs).

Fire Extinguishers



Hold a fire drill within a month of your program in order for staff to practice the Fire & Life Safety Emergency Plan. It is imperative that everyone have the opportunity to physically run through the RACE procedures. Studies indicate that unless adults actually practice safety behaviors, they very well may not be able to perform them correctly when the need arises.

- Provide an example of each type of fire extinguisher found in your facility.
- Distribute fire extinguisher handouts to each employee.
- Show the video "Fire Extinguisher Safety" (12 minutes).
- Discuss the types of fire extinguishers found in your building; their location, how to access them, and the types of fires on which they would (or would not) be used. Identify the parts of the extinguishers. Pass them around, so that everyone can identify and familiarize themselves with handling them. Review the PASS system for using a portable fire extinguisher: Pull the pin - Aim at the base of the fire - Squeeze the handle - and, Sweep the nozzle back and forth. PULL-AIM-SQUEEZE-SWEEP.

* * * NOTE: Personal safety and the safety of others are the most important factors when deciding whether to fight a small fire. Before you begin to fight a fire, be sure of the following: RESCUE-ALARM-CONFINE-EXTINGUISH.

- The fire is confined to a small area, such as in a wastebasket - and is not spreading (getting bigger). A portable fire extinguisher is no match for a large or rapidly advancing fire.
- Your back is towards an unobstructed exit, to which the fire will not spread. You must always assume that you may not be able to extinguish the fire you are fighting. If the fire doesn't diminish with your first attack, or if anything goes wrong, leave immediately and do not return.
- The room is not filled with smoke. Firefighters wear protective breathing equipment because of the dangers of smoke inhalation. Without protection, you may quickly find yourself unable to breathe or see.

It is reckless to fight a fire in any other circumstances. If in doubt, leave immediately; close off the area to slow the spread of fire and smoke. If necessary, evacuate and wait outside at your designated meeting place for the Fire Department.

Hands-On Training

If you have extra fire extinguishers available [ones not required for the facility's protection] employees can practice discharging them in an open outdoor area. A garbage can makes a good target and will help contain extinguishing agent if a dry chemical powder is used. Since dry chemical powder can be corrosive to some metals when combined with water, care should be taken not to use it near cars or other equipment. Each person should take a turn utilizing the PASS method of operation; pulling the pin, aiming the extinguisher low at the base of the fire, squeezing the handle, and applying the agent in a sweeping motion. Just a few seconds of discharging the extinguisher gives each person a feel for the real thing. Usually, several people can use one extinguisher before it is fully discharged.

Remember:

Even if you are successful in putting out the fire, it should be inspected. IT'S THE LAW... All fires are to be reported.

Instructor Information

The major causes of fires in health care facilities are:



Smoking Materials:

Careless handling of smoking materials is the most common cause of fire in health care facilities. Although smoking is not allowed inside facilities, employees must share the responsibility of restricting smoking to designated areas outside the building. Certainly smoking should never be allowed, by either staff or patients, in any area where oxygen is in use or is stored. If a smoking area is provided outside the facility, large, deep, non-tip ashtrays should be provided. Cigarette butts tossed on the ground can ignite, particularly if they land in gardens, barkdust or other combustibles.

Equipment:

Faulty equipment and the improper use of equipment are other major causes of fire in health care facilities. All equipment should be checked and maintained routinely. All staff members can be alert for cracked, split, melted or broken electrical cords or plugs. Extension cords should not replace permanent wiring.

Laundry and cooking equipment should also be maintained on a routine basis. Especially important is to clean lint screens in dryers and grease on/or around stoves and range hoods, as both provide an easily combustible fuel source.



Compressed Gas:

Store gas cylinders in a secure location away from patients. Cap cylinders when not in use. All staff should know how to shut off oxygen and other piped gas systems, if instructed to do so.



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- Prior to your program, become familiar with your facility's fire and life safety emergency systems. Know which of the following you have, as well as their location and use:
 - Manual pull alarms
 - Smoke detectors
 - Exit doors & stairwells
 - Sprinklers
 - Fire extinguishers
 - Fire alarm monitoring service
 - Voice alarm
 - Self-Closing Fire doors
- Common fire and life safety hazards to watch for in health care facilities:
 - Missing or broken fire safety equipment
 - Blocked fire doors
 - Accumulated trash
 - Burned out exit lights
- It is important for every health care facility to have a fire and life safety emergency plan. A well-thought out plan that takes into consideration the unique features of your facility and its occupants. This plan should be in writing, and easily available to all employees. This includes those who work weekends and off-shifts. The plan should be kept current through periodic updating. For further information in developing your own fire and life safety emergency plan, contact the Public Education Office of Portland Fire & Rescue.
- Whenever you need the assistance of Police, Fire, or Emergency Medical Personnel, you only need to remember one phone number: **9-1-1**. It's important for employees calling 9-1-1 to be able to give the following information: The nature of the problem, address, nearest cross street, any specifics known, such as noting "this is a health care facility", location inside facility of problem "third floor room ___ West wing." The caller should not hang up until told to do so by the 9-1-1 Operator.
- It is imperative that every alarm is treated as through it is a real emergency, even if the initial source is unknown. If the alarm sounds, or a fire is suspected, call 9-1-1 to notify the Fire Department immediately. After calling 9-1-1, if you determine that there is no fire, but rather a malfunction of your equipment or a false alarm, call 9-1-1 back and relay this information. Never wait to investigate the situation before notifying the Fire Department. Any delay will allow a fire to grow and further endanger the building occupants and property.
- DO NOT silence the alarm until given permission to do so by Fire Department personnel or by the emergency operator. DO NOT reset the alarm until the Fire Department arrives and has investigated the source of the alarm. All fire alarms are to be investigated by the Fire Department.
- Close doors. By closing doors, you help protect occupants from the spread of smoke and fire. Doors should be closed, not locked, by employees when following the RACE procedures.
- Elevators should never be used by building occupants during a fire emergency. The reasons are three-fold:
 1. Elevators often fail during a fire, trapping occupants;
 2. Elevator shafts may fill with smoke; and
 3. The elevator needs to be available for firefighters in case of emergency needs.

- Most health care facilities use the acronym R-A-C-E as a way for staff to remember how to react in a fire emergency. R-A-C-E stands for:
 - **Rescue** any individual directly threatened by fire - Patient safety is the primary consideration, so move patients who are in immediate danger away from smoke or flames. Place the patient in a nearby room, behind a closed door.
 - **Alarm**. Activate the fire alarm if you discover a fire or respond immediately to the alarm if you hear it sound.
 - **Confine** the fire by closing doors to slow the spread of smoke and flame. Close the doors of patient's rooms. In general, residents are safer in a closed room than in a smoke-filled hallway.
 - **Extinguish** the fire only if the fire is small and if you know how to operate a fire extinguisher. Be sure patients have been rescued and the Fire Department (9-1-1) is called before using the fire extinguisher.
- Fire Code requirements specify the size, number, and location of fire extinguishers within your facility. These requirements help establish a protection level appropriate for the hazard class of your building. Make sure you know the types, sizes and maintenance requirements of your extinguishers, as well as the basics of extinguisher operation.
- The Public Education Section of the Fire Prevention Division provides assistance in Fire & Life Safety Emergency planning, as well as resources for training staff and facility residents. Call the Public Education Office during business hours at (503) 823-3700.

Thank you for taking responsibility for the safety of your facility and its residents!



Discussion Questions

1. If a fire occurred in your workplace right now, what would you do?
2. What do you feel is the best fire prevention activity your organization conducts? What needs to be improved upon?
3. If you needed to help a friend who was just burned, would you know what to do?
4. How has your organization prepared to assist people with disabilities in a fire emergency?
5. Do you feel your fire evacuation plan is well understood by everyone in your organization? What would happen if you held a fire exit drill unannounced?

Fire Extinguishers



Fire extinguishers save lives and property by putting out or containing small fires until the fire department arrives. Even against small fires, however, extinguishers are useful only under certain conditions...

- The operator must know how to use them. There is no time to read instructions during an emergency.
- They must be within easy reach, in working order, and fully charged.
- They need to be kept near the exit. The user needs to have an escape route that will not be blocked by fire.
- They should match the type of fire you are fighting.
- They must be large enough to put out the fire. Most portable extinguishers discharge completely in as few as eight seconds.

HOW TO OPERATE AN EXTINGUISHER

Remember the P-A-S-S word!

Before using your extinguisher, make sure your back is to an exit and that you are standing six to eight feet from the fire.

PULL the pin: Hold the extinguisher with the nozzle pointing away from you and pull out the pin located below the handle. This unlocks the operating lever and allows you to discharge the extinguisher. If you cannot pull the pin you might be squeezing the handle too hard and binding the pin.

AIM at the base of the fire: Not at the flames. This is important - in order to put out the fire, you must extinguish the fuel.

SQUEEZE the lever slowly: This will release the extinguishing agent in the extinguisher. If the handle is released, the discharge will stop.

SWEEP from side to side: Using a sweeping motion, move the fire extinguisher back and forth until the fire is completely out. Operate the extinguisher from a safe distance, several feet away, and then move towards the fire once it starts to diminish. Be sure to read the instructions on your fire extinguisher - different fire extinguishers recommend operating them from different distances. Remember: **Aim at the base of the fire, not at the flames!!!!**

Always be sure the fire department inspects the fire site, even if you think you've extinguished the fire. If the fire gets bigger, get out! Close the door to slow the spread of the fire.

ABC's of FIRE EXTINGUISHERS

Selecting an Extinguisher:

Fire extinguishers are labeled with letters or pictographs to indicate the kind of fire on which the extinguisher is effective.

A Ordinary Combustibles



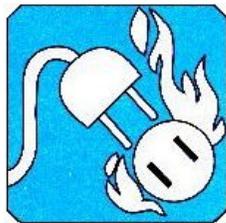
Paper, wood, many plastics, fabric, trash

B Flammable Liquids



Gasoline, oil, grease, some paints and solvents

C Electrical



Energized electrical equipment including appliances, computers, circuit breakers, wiring

FACTS ABOUT FIRE SPRINKLERS

Automatic fire sprinkler systems have existed for more than 100 years. They have been proven to significantly reduce loss of life and property damage. Still, there are misconceptions about their effectiveness and how they work.

Myth: Water damage from sprinklers is more extensive than fire damage.

Fact: Water damage from a sprinkler system will be much less severe than the damage caused by water from firefighting hose lines...or from smoke and fire damage if the fire goes unabated.

Myth: When a fire occurs, every sprinkler head goes off.

Fact: Sprinkler heads are individually activated by heat, and 90% of all fires are controlled with six or fewer heads.

Myth: Sprinklers are costly.

Fact: The current cost of installing a sprinkler system is about 1% of the total cost of new construction (as little as \$1.61 per square foot).

Myth: Sprinklers are designed to protect property, not lives.

Fact: They are extremely effective in protecting lives. There are no reported multiple fatalities (3 or more) in the U.S. from fires in sprinkler-protected facilities.

Myth: Sprinklers can be activated by smoke.

Fact: Fire sprinkler systems are activated only from the heat of a fire at the location of the head...usually when the temperature reaches 165 degrees Fahrenheit.

