

*A Client Safety Module:*

# **FIRE PREVENTION AND SAFETY**

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## *Inservices For Nursing Assistants*



*We hope you enjoy this inservice, prepared by registered nurses especially for nursing assistants like you.*

*After finishing this inservice, you will be able to:*

- Name and describe the 3 elements that must all be present to create fire.
- Recognize 4 classes of fire and identify the proper fire extinguisher commonly used for each class.
- Describe the steps used to operate a fire extinguisher using the P.A.S.S. method.
- Outline the actions you will take in response to a fire using the R.A.C.E. method.
- Describe your facility's emergency fire plan, or develop a customized plan for your home health client.



### *A Client Safety Module:* **Fire Prevention and Safety**

## **Instructions for the Learner**

**If you are studying the inservice on your own, please do the following:**

- Read through **all** the material. You may find it useful to have a highlighting marker nearby as you read. Highlight any information that is new to you or that you feel is especially important.
- If you have questions about anything you read, please ask \_\_\_\_\_.
- Take the quiz. Think about each statement and pick the best answer.
- Check with your supervisor for the right answers. You need **8 correct** to pass!
- Print your name, write in the date, and then sign your name.
- Keep the inservice information for yourself and turn in the quiz page to \_\_\_\_\_ no later than \_\_\_\_\_. Show your Inservice Club Membership Card to \_\_\_\_\_ so that it can be initialed.
- Email In the Know at [feedback@knowingmore.com](mailto:feedback@knowingmore.com) with your comments and/or suggestions for improving this inservice.

**THANK YOU!**



# IN THE KNOW

*Developing Top-Notch CNA's, One Inservice at a Time*

## **A Client Safety Module: Fire Prevention and Safety**

### **WHAT'S THE BIG DEAL?**

#### **Inside This Inservice:**

Understanding Fire	2
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Fires can happen anywhere, any time for a variety of reasons. But, when a fire occurs in a facility or home where frail, elderly or sick people live, the consequences can be devastating.

- While long term care facilities are generally safe, the risk for fire remains high because of the types of materials and equipment present in the building.

In addition, the risk for injury or death to clients and staff is increased because many clients are unable to get out safely without help.

- Clients being cared for at home are at risk for the same reasons, however, the risk is slightly higher because there is little to no inspection or regulation of gases, flammable liquids and electrical devices.

Making matters worse, clients are permitted to smoke in their own homes without supervision. Smoking is the **leading cause** of all residential fire deaths.

There is a long, sad history of deaths related to fires in long term care facilities in the United States. Here are a few notable incidences:

- In July of 1931, 48 people died in a fire in a Pittsburgh nursing home.
- Twenty nursing home residents died in a nursing home fire in Hillsboro, Missouri in 1952.
- In February of 1957, 72 people lost their lives in a fire at the Katie Jane Memorial Home in Warrenton, Missouri.
- Sixty three clients at The Golden Age Nursing Home in Fitchville, Ohio died on November 23, 1963.
- On May 14, 2008, two men died in a nursing home fire in Niles, Illinois.



Keep reading to learn how you can prevent fires, keep your clients safe and put a plan in place so you will know what to do in case there is a fire.

### **WHAT I KNOW!**

Take a minute to jot down a few things you already know about fire safety before reading this inservice.

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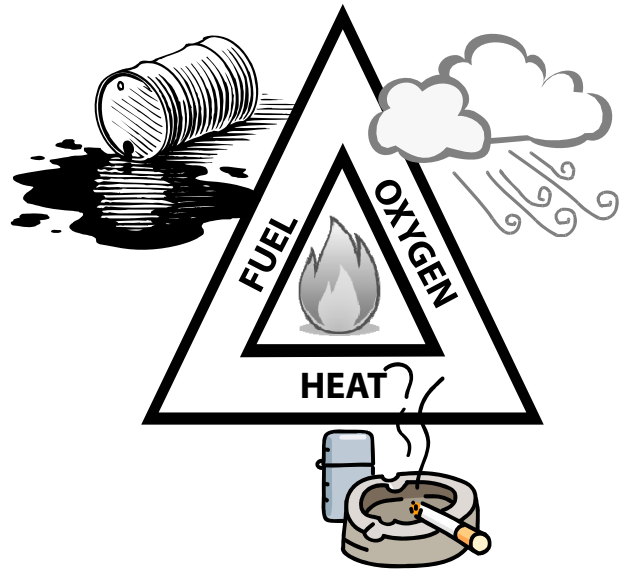
# UNDERSTANDING FIRE

## WHAT CAUSES FIRE?

Fire is a *chemical reaction* that involves the burning of a fuel. It needs **3** elements to happen. If you take any one of these elements away, the fire can't start or it will go out if it was already burning.

- **FUEL:** Fuel is any material that is combustible (meaning, it catches on fire easily). It can be a solid, a liquid or a gas. Most solids and liquids become vapors or gas before they will burn.
- **OXYGEN:** The air we breathe is about 21% oxygen (O<sub>2</sub>). Fire needs air with at least 16% oxygen to keep burning.
- **HEAT:** Heat is the energy necessary to get a fuel hot enough so that vapors are given off and a fire can start.

## FIRE NEEDS ALL 3 OF THESE ELEMENTS



## HOW AND WHY ARE FIRES CLASSIFIED?

Fire is broken down into classes based on what is burning. This information is helpful because it helps you or the firefighters decide what to use to put the fire out.



Later in this in-service you will learn about the different types of fire extinguishers that are specific to each class of fire.

Here are the four most common fires you may encounter:

- **CLASS A:** This includes ordinary combustibles (things that catch on fire easily) or fibrous material such as: wood, paper, cloth, rubber, some plastics and wastebaskets.
- **CLASS B:** This includes flammable or combustible liquids such as gasoline, kerosene, paint, paint thinners and propane.
- **CLASS C:** This includes energized electrical equipment, such as appliances, switches, panel boxes and power tools.
- **CLASS K:** This includes cooking oils and fats. The "K" is for kitchen!

# WHAT'S NEW?

Grab your favorite highlighter! As you read through this in-service, **highlight five things** you learn that you didn't know before. Share this new information with your supervisor and co-workers!



## PREVENTING FIRES IN FACILITIES AND HOMES

**SMOKING:** Even though many facilities are now smoke-free, *careless handling of smoking materials continues to be the most common cause of fatal fires in healthcare facilities.*

- If staff or clients are allowed to smoke, all staff should understand the smoking rules and help to enforce them. Post smoking rules and apply them to everyone (clients, staff, non-facility workers, volunteers, visitors, etc).
- There should be NO smoking in areas where oxygen is in use or stored. And, there should never be smoking allowed where there are gases or liquids that may catch on fire. Post these areas clearly with "NO SMOKING" signs.
- In the home, recommend that clients or family members smoke outside. Stress the importance of NEVER smoking in bed.

**ELECTRICAL APPLIANCES:** Electrical appliances that are damaged or are not used correctly are another major cause of fire. In facilities, appropriate departments should check and maintain all appliances on a regular schedule. In the home, you should routinely check electrical appliances and follow these guidelines:

- Clean lint from laundry filters on a regular basis.
- Check for any cracked or split cords or plugs on equipment. If damage is found, unplug the appliance and recommend client or family members replace or repair the item.
- Avoid using extension cords. If one must be used, **do not** run extension cords across doorways or where they can be stepped on. **Do not** plug one extension cord into another and **never** plug more than one extension cord into an outlet.
- Observe space heaters. They should be placed on a level surface at least 2-3 feet away from drapes, furniture, or other flammable materials.



### IN THE KITCHEN:

- Avoid storing anything on top of the stove or inside the oven.
- Turn handles inward when cooking.
- Keep electrical appliances like toasters or coffee makers away from water.
- Have a fire extinguisher available within reach of the cooking area. **Never try to put out a grease fire with water, this will make it worse!**



# WHAT excites YOU?

Did you know that smoke alarms in homes can cut the chance of being injured or killed in a fire by **HALF**?

You can spread the word about fire prevention and safety by conducting your own "**smoke alarm awareness**" campaign!

- First, visit the National Fire Protection Association on the internet at [www.NFPA.org](http://www.NFPA.org).
- Next, find the search box at the top of the home page and do a search for "Smoke Alarm Awareness."

You'll get all sorts of information, printable handouts and practical tips for encouraging your clients, your family and your community to install and maintain smoke alarms in their homes!

Get energized! Your excitement will be contagious . . . Encourage others to spread the word to their loved ones and neighbors.

Smoke alarms save lives! Just a little bit of effort, education and enthusiasm could save the life of someone **YOU** love!

## FEDERAL AND STATE FIRE SAFETY REGULATIONS

### WHO IS RESPONSIBLE FOR MAKING MY WORKPLACE SAFE?

When OSHA (the Occupational Safety and Health Administration) conducts workplace inspections, it checks to see whether employers are following their standards for fire safety. The standards OSHA requires employers to meet are:

- Proper exits,
- Fire fighting equipment such as extinguishers, sprinklers, hoses, and
- Proper employee training.

The goal of these standards is to prevent fire deaths and injuries in the workplace—with *your* help! The more you know about fire safety, the safer your workplace will be.



### MANDATORY SMOKING BANS—WHO IS INCLUDED?



While smoking has been banned in most work places now, including hospitals . . . long term care facilities are not always included in this law. This is because people both live and work in these facilities.

Smoking bans in long term care facilities vary from state-to-state. While smoking may be allowed in your facility, there should be a clearly marked and supervised designated area for smokers.

### A NEW LAW FOR LONG TERM CARE FACILITIES

A new federal regulation requiring mandatory installation of sprinkler systems in **all** nursing homes went into effect October 2008. This new law requires all nursing homes to have a fully operational sprinkler system throughout the entire building by August 13, 2013.

Prior to this law, only new buildings were required to have sprinkler systems. Older buildings were only required to install battery operated smoke detectors in bedrooms.

Sprinkler systems have been proven to reduce injury and death by fire by as much as 82 percent!



# TALK about it!

## Open the Discussion

Smoking bans in places where people work have only been in effect for a few years now, but studies have already shown that the bans have a number of benefits, including:

- Encouraging smokers to quit,
- Reducing illnesses like asthma, bronchitis and chronic upper respiratory infections in non-smokers who are exposed to second hand smoke, and
- Reducing the number of fires, fire-related injuries and deaths as a result of careless use of smoking materials.

### HERE ARE A FEW QUESTIONS TO THINK ABOUT:

- *If you work in a long term care (LTC) facility that allows smoking, do you think this practice should continue? Or, do you think smoking should be banned? Why or why not?*
- *If smoking can be banned in LTC facilities where people live, do you think it should be allowed to be banned in private homes when it is determined that the smoking is dangerous or contributing to the illness of clients or their family members? Why or why not?*

## PREPARING FOR A FIRE

### IN A FACILITY:

Every workplace should have a plan in place so everyone knows what to do in case there is a fire. Please check with your supervisor for your facility's plan.

Here are some things you need to know before going into a facility:

- **KNOW THE FIRE PLAN:** It's not enough to just have a plan in place—facilities are responsible for making sure EVERYONE knows the plan and will know how to react appropriately when the need arises.
- **PARTICIPATE IN FIRE DRILLS:** Your facility will likely hold routine fire drills during each shift to make sure every employee has a chance to learn the routine. If you have not been involved in a drill—let your supervisor know.
- *Know the location of any fire alarms in your work area, and get trained in how to operate them—even in the dark.*
- *Know the location of portable fire extinguishers in your work area and get training on how to use them.*
- Know how to shut off oxygen and other piped gas systems, **if and when** you are told to do so.
- Know the escape routes from your work area and at least two ways to exit (in case one exit is blocked).



### IN HOME HEALTH . . .

Help clients and their families prepare an evacuation plan:

- Draw a rough plan of the home noting doors and windows that can be used for escape.
- Make sure doors and windows open easily.
- Designate one place to meet outside the home.
- Conduct a drill a couple of times each year so everyone is familiar with the routine.
- Routinely check smoke alarms. Replace batteries as needed.



# CONNECT it now!

*Apply what you know*

### IN YOUR OWN WORDS . . .

If you work in a facility, ask your supervisor for a copy of your workplace's fire emergency plan. Read through the steps carefully.

Actually try to follow the evacuation route to see if it makes sense. Then, make sure there are fire alarms, fire extinguishers, exit signs and unlocked fire exits where they are supposed to be.

These fire emergency plans tend to be written in very official language for inspection and accreditation purposes. So, summarize the plan **in your own words**. Make it easy to read and follow.

Show your summary to your supervisor to make sure all the elements are in place.

Share your summary with your co-workers so they can better understand the emergency plan, too!



## WHAT DO I DO IF THERE IS A FIRE?

**Don't panic! If a fire breaks out, stay calm to set an example for clients—and follow these R.A.C.E. guidelines.**

**R RESCUE:** Move clients who are in immediate danger away from smoke or flames first. Smoke kills, so bend or crawl under it. **DON'T BREATHE IT IN!**

- If there is a lot of smoke, cover your mouth and your client's mouth with a cloth.
- If your clothes or the client's clothes catch on fire, do the following:
  - **STOP** right away. Running will increase the fire.
  - **DROP** to the floor and cover face with hands.
  - **ROLL** around on the floor until the fire is out.

**A ALARM:** Pull the fire alarm. If you are working in a facility, report the fire according to the facility's policies and procedures. If you are in a client's home, call 911. When you report the fire make sure you do the following:

- Identify yourself.
- Give the location of the fire. If you're in a healthcare facility—give the name of the facility, address, and closest intersection. If you're in a client's home, give the address and closest intersection.
- Tell the emergency operator the exact location, room number and floor level OR client's room, bedroom, kitchen, etc.
- Notify management in the facility or building. If you're in a client's home, notify your supervisor.

**C CONFINE:** Close the doors and windows of client(s) rooms behind you to slow the spread of smoke and flames. Don't open doors without checking for heat. If the door is hot, it means there is fire on the other side. Opening a hot door can injure you and cause the fire to spread.

**E EXTINGUISH:** Fight the fire **ONLY** if the fire is small and contained (such as a wastebasket or a frying pan) and **ONLY** if you have been trained to operate a portable fire extinguisher. However, before you begin to fight a small fire, make sure:

- The area has been **cleared**,
- The fire has been **reported**, and
- You have a clear exit **path for escape**.



# THINK about it!

**What would you do if all your fire safety planning became impossible because your escape route was blocked by flames or smoke?**

1. Don't Panic!
2. Go to a room with a window.
3. Close the door.
4. Stuff coats, sweaters, sheets, etc. under and around doors to keep smoke out.
5. Break a window.
6. Stay close to the bottom of the window since fresh air enters at the bottom.
7. Wave outside with a coat or sweater so someone can see you.
8. Stay calm until help arrives.



***"Practice fire safety - watch what you heat!"***

***~Author Unknown***



## MAKING SURE CLIENTS ARE SAFE

1. **Remove anyone who is in serious danger first!** If your facility or your client's home does not have a system in place to identify when people have been evacuated safely, make one! This means you have a universal sign like placing a pillow in front of the closed door to indicate the client has been removed, or hanging a cloth on the door knob if a client still remains in the room.
2. **Know your role!** If you have been assigned a specific activity or job to carry out during an emergency—do it! If you are unable to do it because you are injured or it is unsafe, let someone know!
 
3. **Know the floor plan!** You should know the layout of the building before an emergency happens. This means you have at least two exit options (in case one is blocked), and you will avoid hallways that have dead ends.
4. **Be aware of the location of hazardous materials!** If there is a hazard in a room, close the door to that room. Move clients away from any room that's a hazard.
5. **Team up, if possible!** If you are with a co-worker, one of you should be at the front of the group to lead and give directions. The other person should be at the rear of the group to make sure everyone is present.
6. **Gather everyone at a pre-determined meeting spot!** Once everyone is safe do a head count to make sure all are present.
7. **Know what to do next!** In the event you and the clients are not able to return to the building that you have evacuated, you will have to have a plan in place to seek safe shelter with the necessary medical care your clients need. Anyone who is injured will be transported by ambulance to the hospital. In facilities, there may be busses available to transport those who are not injured to another facility. In the home, a friend or family member can be designated to respond. If no one is available, the client will likely be transported to the hospital.



### *Thinking outside the box!*

Working with clients in the home often requires coming up with creative solutions to uncommon problems.

- **THE PROBLEM:** You are caring for a 78 year old man who has smoked cigarettes since he was sixteen. He lives alone and receives few visitors.
- Recently, his smoking has become unsafe. He often falls asleep in his recliner with a lit cigarette. He also smokes in bed. His ashtrays overflow with ashes and butts.
- **WHAT YOU KNOW:** You know he has tried to quit in the past by “going cold-turkey” but failed after a few days. He refuses to use a patch.
- When you try to talk to him about the safety issue—he denies that there is a problem and refuses to quit smoking.
- **GET CREATIVE:** Think of **3 creative solutions** you might suggest to your client right now to help him prevent a fire and stay safe. For example, could you involve the nurse or physician, get him special ashtrays or add a bedroom smoke alarm?
- **TALK ABOUT IT:** Share your ideas with your co-workers and supervisor and find out how they would solve the problem.

# UNDERSTANDING FIRE EXTINGUISHERS

## FOUR MAIN TYPES OF FIRE EXTINGUISHERS

TYPE OF EXTINGUISHER	CLASS OF FIRE	DESCRIPTION OF FIRE
<p><b>Water</b></p> <ul style="list-style-type: none"> <li>It might say "PCW" on the label</li> <li>It's usually a silver-colored tank.</li> </ul>	<b>A</b>	<p><b>Things that catch on fire easily</b> (wood, paper, cloth, rubber, some plastics, trash can and furniture).</p>
<p><b>Carbon Dioxide</b></p> <ul style="list-style-type: none"> <li>It may say "CO<sub>2</sub>" on the label.</li> <li>These come in a red tank.</li> </ul>	<b>B, C</b>	<p><b>Electrical and liquids that catch on fire</b> (gasoline, kerosene, paint, paint thinners and propane).</p>
<p><b>Dry Chemical</b></p> <ul style="list-style-type: none"> <li>It may say "DC" on the label</li> <li>It will be a red tank.</li> </ul>	<b>A, B, C</b>	<p><b>Things that catch on fire easily; electrical and liquids that catch on fire</b> (all of the above).</p>
<p><b>Wet Chemical</b></p> <ul style="list-style-type: none"> <li>It may say "WC" on the label</li> <li>It will be a silver tank.</li> </ul>	<b>K</b>	<p><b>Fires generally found in the kitchen from cooking oils.</b></p>

Each extinguisher has a specific job function. The following precautions should be used when using fire extinguishers:

- Never use a **water** extinguisher (PCW) on **electrical** fires.
- Have someone shut off electrical power to any burning equipment.
- Never use a **CO<sub>2</sub>** extinguisher on **paper** fires (Class A). It will only blow papers around and risk spreading the fire.
- Use caution when operating a CO<sub>2</sub> extinguisher in a small area. It could make it very difficult to breathe!
- Never replace a used fire extinguisher on its wall mount. **Report any used or defective extinguishers to management.**



**THE NEXT  
step!**

*Apply what you've learned!*

After you have completed this inservice—come back to this page and try to answer the following questions from memory:

**1. What do the letters in the acronym R.A.C.E. stand for?**

R \_\_\_\_\_

A \_\_\_\_\_

C \_\_\_\_\_

E \_\_\_\_\_

**2. When will you need to recall this acronym?** \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**3. What do the letters in the acronym P.A.S.S. stand for?**

P \_\_\_\_\_

A \_\_\_\_\_

S \_\_\_\_\_

S \_\_\_\_\_

**4. When will you need to recall this acronym?** \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

## WHEN AND HOW TO USE A FIRE EXTINGUISHER

- Most fires start small and can usually be brought under control if they are attacked correctly with the right type and size of extinguisher within the first 2 minutes.
- A fire extinguisher should be “listed & labeled” by an independent testing laboratory. The higher the rating number on an A or B extinguisher, the more fire it can put out. Be careful, high-rated extinguishers are often heavier. Make sure you can hold and operate the extinguisher.
- A portable fire extinguisher can save lives and property by putting out a small fire or containing it until the fire department arrives. Before attempting to fight a small fire be sure everyone is out of the building. It is important to have someone call the fire department. If the fire starts to spread or threatens your escape path, get out immediately!
- You must know how to use the extinguisher—quickly—without taking time to read directions during an emergency. Remember that the extinguishers need care & must be recharged after every use.

Here is a quick, easy way to remember how to operate a fire extinguisher. It's call the P.A.S.S Method:

**P = Pull the pin**

**A = Aim the nozzle at the base of the fire**

**S = Squeeze the nozzle**

**S = Sweep the stream from side to side**



**PULL** the pin. Some extinguishers require you to release a lock latch, press a puncture lever or other motion.

**AIM** low pointing the extinguisher nozzle (or it's horn or hose) at the base of the fire.

**SQUEEZE** the handle. This releases the extinguishing agent.

**SWEEP** from side to side at the base of the fire until it appears to be out. Watch the fire area in case fire breaks out again. Be ready to use the extinguisher again if necessary.



## 5 KEY points

### Key Points to Remember

1. It's much easier to prevent a fire than to fight it! Always be on the lookout for potential fire hazards and **eliminate the risk** before it becomes an emergency!
2. Being prepared for a fire is the best way to prevent injury or death to your clients or yourself. Remember the R.A.C.E. and P.A.S.S. methods of responding to fire—and always **STAY CALM!**
3. People who are elderly, frail, sick, or immobile are at an increased risk of becoming injured or dying in a fire because they cannot get out without help. *You must be prepared to help!*
4. Despite efforts to ban smoking or to increase smoking safety awareness—smoking remains the number one cause of all residential fire deaths.
5. Whether you work in a facility or in a private home—there must be a plan in place to handle a fire emergency. If no plan is in place—**MAKE ONE!** If there is a plan, but you don't know it—**LEARN IT TODAY!**





# IN THE KNOW

*Developing Top-Notch CNA's, One Inservice at a Time*

## **A Client Safety Module: Fire Prevention and Safety**

**Are you "In the Know" about Fire Prevention and Safety? Circle the best choice or fill in your answer. Then check your answers with your supervisor!**

**1. True or False**

Risk for injury or death is greater for clients who cannot evacuate during a fire without help.

**2. Fill in the Blanks**

Fire needs these three elements to burn:

1. \_\_\_\_\_ 2. \_\_\_\_\_ 3. \_\_\_\_\_

**3. True or False**

Damaged cords on electrical appliances can cause a shock but not a fire.

**4. True or False**

Smoking bans have not been proven useful and violate people's rights.

**5. To put out an electrical fire, you would use:**

- A. A Class K fire extinguisher.
- B. A "Dry Chemical" or "DC" type fire extinguisher.
- C. Water.
- D. A towel to fan it.

**6. True or False**

The R.A.C.E. guidelines are the easiest way to remember how to operate a fire extinguisher.

**7. True or False**

If you catch on fire, you should stop, drop, and roll to put the fire out.

**8. Fill in the Blank**

The "A" in P.A.S.S. stands for \_\_\_\_\_ .

**9. True or False**

Smoking is the leading cause of all residential fire deaths.

**10. True or False**

Home smoke alarms can cut the chance of being injured or killed in a fire by half.

EMPLOYEE NAME (Please print):

\_\_\_\_\_

DATE: \_\_\_\_\_

- ***I understand the information presented in this inservice.***
- ***I have completed this inservice and answered at least eight of the test questions correctly.***

EMPLOYEE SIGNATURE:

\_\_\_\_\_

SUPERVISOR SIGNATURE:

\_\_\_\_\_

**Inservice Credit:**

<input type="checkbox"/> Self Study	1 hour
<input type="checkbox"/> Group Study	1 hour

*File completed test in employee's personnel file.*