



# **FIRE & HOME SAFETY**

**Inservice CEU = 1 Credit Hour**

**Instructions: Please read, complete and return post test.**

## FIRE & HOME SAFETY

Fire is always a frightening prospect, but it's especially frightening in a health care facility where patient safety is an added worry. Fire-retardant construction materials and the presence of smoke alarms, sprinklers, and fire extinguishers reduce the risk of fire, but it takes more than that. Every employee has to know what could cause a fire and what could prevent it.

### *Fire results when three things come together:*

<b>FUEL:</b>	paper, wood, oil, etc.
<b>AIR/OXYGEN:</b>	atmospheric or as bottled source
<b>HEAT/IGNITION SOURCE:</b>	flame, sparks, etc.

Fire can also result from electrical problems, chemical reactions, or even spontaneous combustion (a slow buildup of heat from materials kept without adequate ventilation, for example, wet waste rags in a trash can). Electrical equipment is a major cause of fires. It's important not to overload outlets, circuits, or motors. In addition, be sure to match plugs to outlets. Don't try to force a three-pronged plug into a two-pronged outlet. Take a good look at electrical wires. Don't use anything when the wire insulation is worn or frayed.

### **Below is a list of Do's and Don'ts preventing fires from electricity:**

DO replace wires when insulation gets frayed or worn. Otherwise they might create excess heat, causing fire.

DO check that ground connections are sound. A proper ground provides a safe path for electricity if something goes wrong.

DO keep combustible materials away from lights, machinery, or other heat producing devices.

DON'T use temporary wiring.

DON'T overload motors, circuits and outlets.

DON'T leave heating equipment or machinery running unattended or overnight.

### **Below is a list of Do's and Don'ts in preventing deadly vapor from flammable liquids:**

DO keep away from heat and cigarettes.

DO use only in areas with good ventilation.

DO store in approved metal containers – never anything breakable.

DO ground containers when transferring materials to prevent static electricity as an ignition source.

DO take out only what is needed for the job.

DO clean up spills and leaks quickly.

DO remove clothes that have absorbed liquids immediately.

DON'T store "empty" flammable liquid containers near ignition sources unless they've been tested and OK'd for a job. Just a few drops of leftover liquid can cause a fire.

DON'T ever cut a drum or container that contained gasoline or other flammable liquids for the same reason.

## *Follow these good housekeeping steps:*

- Keep combustibles and flammable materials (wood, paper, gas, oil, chemicals) away from lights, machinery, or other heat sources,
- Dispose of combustibles, like oily rags, in tightly covered metal containers.
- Store all flammable liquids properly. Never store combustibles or flammables in, or near, electrical panels.
- Keep motors and machines free of dust and grease.
- Smoke only in designated areas.
- Practice preventative maintenance on all electrical equipment.
- Keep all storage areas clean and free of debris.

## **STAFF MUST:**

- ✓ Keep calm.
- ✓ Determine the exact location of the fire.
- ✓ Implement "RACE" (rescue, alarm, confine, extinguish) procedures as indicated.
- ✓ Clear passageways of all persons, equipment, and material.
- ✓ Inform patients and visitors to remain in rooms until evacuation or "all clear" is announced or signaled.
- ✓ Do not use telephone or paging system except for emergency communication.
- ✓ Monitor area for evidence of fire, smoke, and excessive heat passage.
- ✓ Prepare to evacuate.
- ✓ If the fire is on the floor below, monitor your floor for excessive heat or smoke and await the instructions of the command center.

## **RACE:**

**R** = Rescue persons in immediate danger and those who are ambulatory. Be sure to account for all patients and personnel. Look for children and older adults in closets, showers, etc.

**A** = Alarm should be pulled at the nearest interior fire alarm; then immediately notify the operator and report the exact location of fire and what is burning if known.

**C** = Confine smoke and/or fire by closing doors and windows. Shut off oxygen valve to area as authorized. Notify operator of yellow alert to unit. Turn off all electrical equipment except electric lights in danger area.

**E** = Extinguish or Evacuate. Obtain proper fire fighting equipment as quickly as possible and operate on fire. Use sheets, towels, and blankets if necessary to extinguish small fires in the initial stage. Direct fire department authorities to the emergency scene, and then operate under their direction

## CARE:

If fire is found in an empty room or closet, implement "CARE":

- C** = Confine
- A** = Alarm
- R** = Rescue
- E** = Evacuate

If you are in the building when the fire alarm is sounded but are not at the scene of the fire, remain in that area and assist personnel (unless you are assigned to the Response Team).

Personnel in the area involved will immediately secure the nearest fire extinguisher, check the alarm location card, determine the location of the fire area, and proceed to the area as quickly as possible.

After the area has been secured, personnel will stand alert in the corridor, making sure that the corridor is completely cleared, patients are calm and in their rooms with their doors closed and being on the alert for smoke, heat, or fire. The person in charge will stay by the telephone for emergency instructions. When the "all clear" signal sounds, it means that the fire drill or emergency is over and personnel will continue with their normal routines.

## **Classification of Fires:**

- Class A: fire involving ordinary combustible materials.  
*(wood, cloth, paper, rubber, and some plastics)*
- Class B: fire involving flammable or combustible liquids.
- Class C: fire involving energized electrical equipment.
- Class D: fire involving certain combustible metals such as magnesium, titanium,

## **Fire Extinguisher Types:**

- Class A: (H<sub>2</sub>O—silver tank) wood, paper, cloth, upholstery.
- Class B: (Foam—red tank) flammable liquid, gasoline oil, grease paints.
- Class C: (CO<sub>2</sub> or dry chemical—red tank) electrical fires, burning liquids.
- Class D: combustible metal—potassium, magnesium, titanium, zirconium.

Extinguishers should be placed where they are readily visible, easily accessible, and relatively free from blockage by storage or equipment, near normal paths of travel, and protected by potential accident or damage. Always work in a pair when using a fire extinguisher. To use an extinguisher:

- PASS:**
- 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

## General Evacuation Procedure:

Remove all persons in imminent danger first; then evacuate ambulatory persons. Utilize blankets to wrap patients or as improvised stretchers for transporting non-ambulatory patients. Avoid dead-end corridors. Provide adequate lighting. A staff member must be at the front of a group to lead and give directions, and another staff member must be at the rear of the group to make sure that all persons are accounted for. On arrival at another location, take a head count and notify the fire command station of your location.

## Horizontal Evacuation:

Personnel will immediately remove any person(s) that might be in a room where there is a hazard. The door or doors to this area are then closed. The adjoining rooms are then evacuated. Evacuees are moved away from the danger area in the direction of the nearest safe exit on the same plane. Persons who may be in the halls or corridors are also moved in the direction of the nearest safe exit. If conditions warrant, evacuees are taken out of the building.

## Area of Refuge:

This is a floor area to which egress (exit) is made through horizontal or supplemental vertical exit. Smoke barrier doors to this area shall be maintained closed. The area of refuge shall have the following characteristics:

- Must be predetermined.
- Will have various locations on each floor.
- Should have a window
- Must have a telephone
- Must have a fire extinguisher

## Vertical Evacuation:

Doors to all stairs must be closed immediately. Personnel will immediately remove any person who might be in a room where there is a hazard. Doors to this area are then closed and adjoining rooms are then evacuated. Evacuees shall be moved away from danger and taken to a position below or to the street by means of the nearest safe exit. Persons who may be in the halls or corridors are also taken to a position below or to the street by means of the nearest safe exit. "All clear" will be announced on the public address system by the telephone switchboard operator, indicating the conclusion of the drill or that the fire has been extinguished.

## ELECTRICAL SAFETY

Remember, senseless handling of current kills. Follow these safety practices to reduce the chance of accident or injury.

Treat all electric wires as live with electricity. Do not use electrical equipment while your hands are wet. Water is a conductor that can cause shock. Report any and all indications of possible overload immediately. If you should find a sparking or smoking motor or other electrical equipment, turn off the power and report the condition at once.

Extension cords are often the cause of an electrical shock. Examine them carefully for worn insulation and exposed strands of wire prior to use. Do not drag cords over sharp edges or run them across aisles where they can be damaged or cause a tripping hazard. Avoid overloading and improper use of extension cords.

All portable power tools should be grounded. This is done automatically by three-pronged plugs when inserted into grounded receptacles. Pull on the plug instead of yanking the cord when removing from receptacle. Only qualified electricians should work on electrical equipment or energized lines. All energized patient care equipment should be tested prior to use as per policy. Use only three prong plugs in three prong outlets. Do not overload circuits. Check for loose plugs in wall receptacles. Do not touch exposed pacemaker terminals, catheter guide wires, etc., while handling other electrically operated devices.

## EQUIPMENT SAFETY

The goals of equipment management are to provide safe, reliable equipment that performs accurately and consistently. Managing the tremendous number of devices in a health care institution involves many people. The teams of people who handle this task include the owner/user of the equipment, those who provide service (repair, inspection, and preventive maintenance), and those who provide training.

The owner/user has the responsibility to make sure that equipment is running properly in their area. This requires coordination with technical support available (in-house support or vendor support). When equipment is purchased the appropriate support group should be contacted so that incoming inspections can be performed before the equipment is used and a plan of how the device will be serviced can be in place. The user of the device then calls for service as required assures that training needs are met, and check inspection stickers before use. All equipment used clinically, including research equipment is managed in the same way. Each client site provides technical support. The appropriate department is determined by the skill sets and capability in the in-house support group or in some instances the appropriate use of vendors.

## EQUIPMENT SAFETY (cont'd)

These departments provide the repair, inspection, preventive maintenance, and technical information support for equipment. They work together with owners/users to develop the most appropriate support programs for each situation. If an injury occurs that is related to equipment, an incident report should be filled out and submitted to the Department of Legal Affairs or designated Department. The Risk Management Department will then take appropriate action in complying with the Safe Medical Devices Act (SMDA).

## WORKPLACE SAFETY

The primary goal of Protocall is to maintain a safe and secure environment. One very important element of a safe and secure environment is crime prevention. Crime prevention is everyone's responsibility and all employees are expected to participate. Protecting personal belongings and safeguarding company property should be a high priority for every employee. All offices should be locked when unoccupied and personal belongings should be locked up/safeguarded at all times. Every employee should be familiar with their surroundings in order to be able to recognize activity that is "out of the ordinary" or "suspicious" in nature. Reporting unusual activity is a cornerstone to an effective crime prevention program. **IF IN DOUBT, CALL THE APPROPRIATE AUTHORITIES.** Protocall will take immediate action when safety is compromised that could result in personal threat, a potential for injury to individuals or damage to equipment. This authority is delegated to the manager in charge in the absence of the administrator/owners.

Protocall will take swift and appropriate action against any person(s) engaging in prohibited conduct. Prohibited conduct is threats, threatening language, or any other acts of aggression or violence and will not be tolerated. A threat would include harassment, attempts at intimidating or instilling fear in others, menacing gestures, flashing or being in possession of a concealed weapon, stalking, verbal or physical abuse, or other hostile, aggressive, injurious, destructive actions designed to dominate or intimidate a reasonable person. If necessary and/or requested, local law enforcement personnel will become involved to provide assistance.

At most client facilities, security officers are available to assist staff in dealing with individuals creating a disturbance, or exhibiting violent or aggressive behavior. Additionally the security staff has specific responsibilities in the event of a fire or other internal disaster, or a mass casualty situation. At some client facilities, the security department provides an escort service to employees during the hours of darkness or contact the department manager for assistance.

The reporting of any security related incident is a requirement. To report a theft, vandalism, suspicious person/activity, or any security related problem, contact Protocall and client department manager as soon as possible upon discovery of a problem or suspected problem. When appropriate to the protection/safety of patients, staff, visitors and client property, security officers have the right to stop and question individuals, inspect personal belongings, bags, packages and if needed, patient rooms.

## **Responding to Bomb Threats**

All employees should know what to do if a bomb threat is received. It is always desirable that more than one person listens in on the call if possible. A calm response to the bomb threat caller could result in obtaining additional information. This is especially true if the caller wishes to avoid injuries or deaths. If told the building is occupied or cannot be evacuated in time, the caller may be willing to give more information on the bomb's location, components, or method of initiation. Remember, the bomb threat caller is the best source of information about the bomb.

When a bomb threat is called in, follow this procedure: Keep the caller on the line as long as possible. Ask him/her to repeat the message. Record every word spoken by the person. Ask the location of the bomb and the time it is set to go off. Inform the caller that the building is occupied and that detonation of the bomb could result in death and/or serious injury to innocent people. Pay attention to background noises, such as motors running, music playing or any other noise, which may give a clue to the location of the caller. Listen closely to the voice (male or female), voice quality (calm, excited, etc.) accents and speech impediments. Immediately after the caller hangs up, report the call to your supervisor and security/police personnel. Remain available to talk to security/police personnel.

When a written threat is received, save all materials, including any envelope or container. Once the message is recognized as a bomb threat, further unnecessary handling should be avoided. Every possible effort must be made to retain such evidence as fingerprints, handwriting, typewriting, paper and postal marks. These will be essential in tracing the threat and identifying the writer.

## **EMERGENCY PREPAREDNESS PLAN**

In the event of an emergency, Protocolcall will execute an organized and systematic plan in response to an emergency situation that disrupts normal operations. Examples of such an emergency include a mass-casualty incident, plane crash, fire, civil unrest, or severe weather conditions/highway closing that affect access of employees, patients, and visitors. The extent to which the plan is implemented will be determined by the type and magnitude of the incident. The guiding principles of the plan are to optimize patient care; ensure patient, visitor, and employee safety; and maintain operational efficiency until the situation is resolved.

The Plan applies to all Protocolcall employees. It is the responsibility of all persons to be familiar with their role in an emergency situation. An Administrative leader is appointed to determine the plan. The leader is the owner or designees. If an emergency occurs when working at a client facility, the Administrative leader is appointed by the client facility. The plan will be communicated to all employees by key Administrative Personnel.

## Ergonomics/Back Safety

Ergonomics is the science that fits the tasks and tools to the individual instead of fitting the individual to the work environment or task. Poor ergonomics causes injuries. It puts unnecessary and unnatural stress on the body, putting the body into painful positions. Examples of poor ergonomics that cause pain include repeating the same motion over and over or staying in the same position for a long period of time. Repetitive motion disorders can develop from stretching or twisting awkwardly to get materials you need for the job, forceful exertion, and vibration.

Symptoms of Repetitive Stress Disorders (specifically carpal tunnel disorder – the most common) are tightness, discomfort, stiffness or pain (for carpal tunnel syndrome pain in the hands, wrists, fingers, forearms or elbows); tingling, coldness or numbness; clumsiness or loss of strength; and pain that wakes you up at night.

Your primary goal in ergonomics is to reduce the need for awkward movements or positions. Some examples of this are as follows:

- Do not reach more than 20 inches to get equipment and materials you need,
- Your work surface should be about the height of your waist,
- Your station should be set up so you shouldn't have to reach behind your back or above your shoulders,
- You shouldn't have to bend from a sitting or standing position.

Specifically most people, at one time or another must work at a computer for extended periods of time. What most people don't understand is that your workstation should be adjustable in order to fit your needs. Here are some recommendations that may help:

- Your chair should have a five-point base, with the lip of the seat rolling forward, so the edge of the chair does not cut into the leg,
- The keyboard of your computer should also be adjustable so that it can be aligned directly in front of your computer and adjusted to a height where your arms are parallel to the floor.
- The top of your computer screen should be set at a height that is 10 degrees below horizon. Reading materials should be at the same height and distance as the screen in order to reduce eye and neck strain.
- Your chair should have armrests and the back of your chair should be adjustable so that the top of the backrest rests between your shoulder blades,
- The height of the chair should be adjusted so that your feet are flat on the ground,
- Wrists should NOT be bent forward or to the side. They should be straight and in line with your hands and fingers.

## Ergonomics/Back Safety (cont'd)

Your back is your foundation and your support. Your back, specifically your spinal column, is made up of many vertebrae (bones) and discs (cushions between the bones). Ligaments connect your vertebrae together. At the center of this column is the spinal cord. Nerves run from the spinal cord to the other parts of the body. Muscles are also attached to the bones in the spinal column. They work in conjunction with the muscles in your stomach in order to keep the spinal column in place.

When you slouch or stay bent over for long periods of time, your ligaments and not your muscles do all the work. They stretch, HURT, and put unnecessary pressure on the vertebrae. Your lower back takes most of the strain so you have to be particularly careful of your seating and positioning.

When seated for long periods of time, it is best to maintain the natural curve of your spine. The lower and middle of your back should be supported, and sometimes changing positions frequently can relieve pressure. When moving or lifting a heavy object, give your back a break by using mechanical aids to do the work. Some examples of these aids are forklifts, handcarts, dollies and hoists. When using these aids, remember these safety tips for an easier lift and healthier back:

- Control the load by keeping it close to your body,
- Get a firm grip, sometimes wearing gloves can help;
- Remove any obstacles and ensure a clear path. You need to see where you are going,
- Push, don't pull. This maximizes power and reduces strain.
- With your back straight and your knees bent, lean your body into the object,
- Ensure that equipment is properly maintained so all wheels and pulleys work well.

### *Some simple lifting tips:*

It doesn't matter how strong you are, lifting is a matter of technique. If you lift something heavier than you are capable of, then it can be hazardous to your health. The simple solution, FIND SOMEONE TO HELP!!

### *Some tips for a safe two-person lift:*

- If possible, both people should be about the same height;
- Raise and lower the load the same time; keep the load level while moving it.

Before you start a two-man lift, agree on who will give directions and what to do if one person feels his or her grip is slipping or needs to rest.

## Ergonomics/Back Safety (cont'd)

**Some tips for correct lifting techniques. They can be used not only for one but two person lifts:**

- Stand close to the load,
- Keep your back straight;
- Let your legs do the work;
- Stand up slowly, holding the object close to your body,
- Put the load down slowly, allowing your legs to do the work
- Finally, Ask For Help!!



# FIRE & HOME SAFETY MANDATORY EDUCATION TEST

Credit = One (1) In-service Hour

Name \_\_\_\_\_ Date \_\_\_\_\_

**1). What should you do if you discover fire or smoke?**

- A. RESCUE anyone in danger, sound the ALARM, CONFINE, close door, evacuate relocate as necessary.
- B. ACTIVATE the alarm, Close the windows, and telephone 911.
- C. Run from the area, ALERT the other staff, CLOSE all windows, and Evaluate response.
- D. REMOVE burning item, AIR, provide fresh, call assistance, and extinguish fire.

**2). What should you do if you hear the fire alarm?**

- A. Count the code or listen to directions/location.
- B. Close the doors in area. Inform patients while doing so.
- C. Listen for the "all clear" to sound.
- D. All of the above are correct.

**3). What is the first step you should take to contain smoke and or fire in your area?**

- A. Activate the sprinkler system.
- B. Close the door.
- C. Break the window.
- D. Sound the alarm.

**4). Fire extinguishers are rated for various uses. Explain each of the following:**

**Class A:** \_\_\_\_\_

**Class B:** \_\_\_\_\_

**Class C:** \_\_\_\_\_

**5). Explain how to operate a fire extinguisher:** \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_