

SAFETY IN CS/SPD

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****This in-service has been Approved by the CBSPD for 1.5 CEUS.**

OBJECTIVES:

Define ergonomics and body mechanics
How to use ergonomics to protect oneself
Basic fire safety practices
Personal safety in the decontamination area
Practice sharps safety

BE KIND TO YOUR BODY – PRACTICE ERGONOMICS

We have all been told by our parents to stand up straight. But bad habits come easy and they have to be consciously changed. To make these changes we must learn the basics of good body mechanics and incorporate them into our daily lives.

Ergonomics is the study of body mechanics. It studies the limitations of body movement and what has the greatest effect on it. It evaluates repetitive stress injuries and what can be done to correct them. OSHA mandates that employers make the work place "worker friendly". This includes desks and chairs at a comfortable height, good back support, carts on wheels, and adjustable work tables.

Body Mechanics is the way we move and go about doing our daily activities, working, resting and exercising. It includes how we hold our bodies when we sit, stand, lift, carry, bend and sleep. It is important for all of us to learn and use good body mechanics to protect our bodies from pain and injury. The most frequent cause of back problems can be related to poor body mechanics. When we are not in alignment and don't move as we should the spine is subjected to undue stress. Over time this leads to unnecessary wear and tear resulting in injury, degenerative disc and joint disease.

One of the most important components of body mechanics is posture. Good posture used everyday keeps the back in a neutral position and aids in reducing the risk of injury. A neutral spine is one in which the position of the spine is comfortably maintained by the discs, bones, and ligaments. To keep your body in a balanced, comfortable and aligned position use the following suggestions.

POSTURE:

- Stand with the feet slightly apart
- Create a hollow in the lower back by tucking in the tailbone and tilting the pelvis forward.

- Shoulders back with the chest lifted
- Lift your chin, relax your jaw and mouth

STANDING:

- Avoid standing in one position for long periods of time
- Stretch to avoid muscle tightness
- Stand on a firm level surface
- Use a small stool and place one foot on it if standing for long periods and alternate feet often
- If possible lean on a support
- Stand close to the job you are doing
- Wear comfortable shoes that protect your feet. Avoid high heeled shoes if you plan to be on your feet for a lengthy period
- Push objects rather than pull them. Put one foot in front of the other, bend at the hips and walk forward.

SITTING:

- Feet flat on the floor (use foot stool if necessary)
- Buttocks at the back of the seat
- Knees bent and level with the hips (maintain a small space between the chair and the knees)
- Shoulders back and facing the same direction as your hips
- Chest lifted
- Relax jaw and mouth
- Lift chin
- Use your arm rests if you have them
- Have your work straight in front of you so you don't have to look up or down
- Adjust your computer monitor so that the top is at the same level as your eyes
- Use a paper holder so that the document is at the same level as the computer screen.
- Control your hair, make sure your hair does not distract you while working. Keep your hair out of your face and prevent it from hanging down in front of you. This makes you hold your head to one side in order to keep it out of your face resulting in neck and back problems.
- Get up and stretch often. Do not stay in one position for long periods.

SLEEPING: We spend about one third of our time in bed.

- Sleep on a firm mattress
- Do not sleep on your stomach
- Do not sleep on oversized pillows
- Use a pillow that keeps your head aligned with your body

- Back and side positions are best for a neutral spine
- Place a pillow between your knees for side sleeping
- Place a pillow behind your knees for back sleeping

LIFTING:

- Lifting places the greatest load on the lower back.
- If something is more than half your body weight, get help or use equipment.
- Lifting is easiest from knuckles to shoulder
- To turn when lifting, pivot your feet
- It is easiest to load and unload items at waist height. (Center of gravity)
- Have the load immediately in front of you
- Bend the knees to a full squat or lunge position
- Bring the load to your chest
- Assume the neutral position with your back
- Tighten the buttocks and lumbar muscles
- Lift with legs to a standing position

DO NOT:

- Lift from a twisted sideways position
- Lift from a stooped unbalanced position
- To lower the load, bend forward at the hips, squat, stick the buttocks out behind as you go down
- When reaching overhead use a step stool, get as close as possible.
- If carrying is necessary, keep the stomach muscles tight and maintain a neutral spine. Hold the object close to the body

DRIVING:

- Keep hips and knees level
- Do not lean back and drive with outstretched arms
- Stop every hour or so on long trips
- Use a lumbar support if needed

Repetitive motion injuries to the arms, wrists and hands, such as Carpal Tunnel Syndrome, are also common in the CS/SPD profession. They are caused by too many uninterrupted repetitions of an activity or motion, twisting, overexertion, incorrect posture and muscle fatigue. Use the following suggestions to prevent these injuries:

- Before beginning a repetitive task flex fingers and stretch wrists
- Take frequent breaks to stretch and relax wrists and hands
- Maintain good posture when sitting and standing

To make the most of what you've got you must use your mind and body at the same time.

What things can you identify in your work area that are not user friendly? What changes might you suggest for improvement? Discuss these with your supervisor or safety committee representative.

FIRE AND ELECTRICAL SAFETY

Fire is an ever present danger and it is the responsibility of each CS/SPD employee to maintain a fire safe environment in their department. Each of us must do our part. When bringing personal items into the department such as radios, coffee pots, microwaves and other such devices we should assume the responsibility for having them checked by the bio-med department and an approval label attached before we put them into use. If your facility allows smoking it should be done only in designated areas. Fires can easily occur because of non-compliance with the smoking policy.

Fires occur when the three elements that support combustion come together. These three elements are called the “fire triangle”, they are an ignition source, a fuel source, and an oxidizer. All of which can be found in CS/SPD.

The fire exits should be marked with working illuminated signs and the doors kept closed. These doors must remain closed at all times if not in use and should never be propped open for any reason. All exit doors should open outward, operate freely and should never be locked or secured with panic bars. We must keep our hallways, passage ways and exit routes unobstructed as this could delay the evacuation of the department if you needed to move things to get out in an emergency. Always be aware of the safest route for escape.

The fire alarms in CS/SPD should be easy to access and be unobstructed. The staff should be shown the locations of these alarms and how to use them during orientation and during an annual review. They should also be aware of the closest alarms outside the department in the event it is necessary to activate the alarm after exiting the department.

Another important item to note is the location of the fire extinguishers. All employees should be oriented to the type of extinguishers in the department and how to use them. The three types of extinguishers are Type A which contains water and is to be used for paper, cloth or wood fires. Type A extinguishers should never be used on an electrical fire. Type B contains carbon dioxide and is used for electrical fires. The ABC extinguisher contains ammonium phosphate and can be used for any type of fire. Fire extinguishers should be conspicuously and properly mounted, charged, labeled as to the type and class of fire it is to be used on, clearly marked and readily accessible. If you make the decision to operate the extinguisher, always use it with your back toward an escape exit.

The acronym “**PASS**” can be used as a reminder during training to enhance skill and confidence in operating fire extinguishers.

- P. Pull the pin**
- A. Aim the nozzle**
- S. Squeeze the handle**
- S. Sweep the stream over the base of the fire**

Other responsibilities that the CS/SPD employee has in preventing fires or burns is to inspect the insulation on reusable endoscopic instruments after cleaning in preparation for re-sterilization. Any cracked or broken insulation on an instrument is reason for removing it from the set. If there is a break in the insulation it increases the chances of alternate burn sites to a patient or possible fires in the operating room.

All electrical equipment should be grounded and in good repair. Keep electrical cords off the floor, and if it cannot be avoided do not roll equipment over them. Do not use extension cords. Remove cords by pulling the plug and not the cord. Have all patient care equipment checked by the bio med technician before putting it into use. Any cords with frayed wires, cracks or broken plugs must be removed from service immediately. All supplies must be stored at least 18 inches from sprinkler heads. Fires can also be caused by improper storage of combustible materials. Everyone must comply with departmental policies regarding the specific items in their facility. All combustible refuse should be deposited in a designated area.

Most healthcare facilities use the acronym “**RACE**” to help staff remember what to do in a fire emergency

- R. REMOVE / RESCUE.** Get everyone out of CS/SPD.
- A. ALARM / ALERT.** Activate the alarm and then dial your emergency telephone number to make sure the alarm was received.
- C. CONTAIN / CONFINE.** Close all doors.
- E. EXTINGUISH OR EVACUATE.** If you have been oriented to the fire extinguisher or relocate to a safe place outside the fire zone

The supervisor should be the last one to exit and should account for all staff in the pre-designated safe area. He/She should not allow anyone to reenter the department or building until the fire department allows reentry. There should be an annual in-service to review CS/SPD Fire Safety and to review the evacuation plan and route (this should be posted in the department) as well as to confirm staff knowledge of specific protocols on how to initiate a fire alarm or “code red” and operate fire extinguishers.

It is mandatory that facilities hold regular fire drills, usually one per quarter, and that CS/SPD participate. Documented records of the results and all participants are kept to indicate that the facility is in compliance with the regulations. The records address questions such as: did everybody respond; did everybody go to the designated safe place; did the alarm work; are the smoke detectors functioning? You can make you own list with the help of the Safety officer of things that are important in your facility that will

confirm the support of your CS/SPD Department in your Fire Safety Plan. After a fire drill discuss the drill with the staff and evaluate its effectiveness. This information can be used to identify your strengths and areas for improvement. Fires can be prevented.

DECONTAMINATION, SHARPS AND BLOODBORNE PATHOGEN SAFETY

Personal Protective Equipment (PPE) is required by OSHA and is intended to protect the healthcare worker from exposure to bloodborne pathogens. Essential PPE is required to be made available to all employees performing tasks that may expose them to Bloodborne pathogens. The use of PPE is **not** optional. Proper use needs to be enforced and those who fail to follow policies may be subject to disciplinary action.

PPE includes all of the following:

- Long sleeved, impervious or fluid resistant gowns or jumpsuits
- Eye and face protection including masks, eye shields, full face shields
- Head coverings
- Fluid protective shoe covers
- Heavy duty protective gloves with long cuffs. Cut resistant glove liners may also be used beneath gloves

Sharps are defined as objects with points or blades. The CS/SPD technician frequently comes in contact with sharps which include, but is not limited to, scissors, trocars, and reusable biopsy needles. It is important to practice sharps safety to prevent injury and exposure to bloodborne pathogens. All sharps should be placed into puncture proof, leak proof containers. This includes all scissors and other sharp objects being transported to the decontamination area. The CS/SPD technician should never reach into a container of contaminated instruments unless the contents are clearly visible. If contents are not clearly visible, a sponge stick or another type of forcep should be used to remove the instruments.

The decontamination area and the area in front of mechanical washers are the areas of the department where water on the floor is most likely to be found. Slipping on a wet floor can cause serious injury. Employees must be extremely careful when walking in these areas. If a small amount of water is noted on the floor you should clean it immediately. If there is a large amount that will require mopping, a wet floor sign or other means of alerting people to the danger should be placed near the area until proper equipment can be obtained.

ALL employees must do their part in creating and maintaining a safe environment, not only for themselves, but for their co-workers as well. Participation in accident and injury prevention programs and constant awareness of their environment makes for a safe place to work.

REFERENCES:

Basics of Sterile Processing, 2nd Ed., 2007

AORN, Recommended Practices, 2008

<http://www.osha.gov/SLTC/etools/hospital/hazards/hazards.html>

POST TEST QUESTIONS: Safety in CS/SPD

This in-service is Approved by the CBSPD for 1.5 CEUS. Complete this post test and follow the directions at the end of the test for payment and results.

1. Ergonomics is the study of
 - A. body mechanics
 - B. safe office furniture
 - C. muscle development
 - D. buying shoes that fit

2. Body Mechanics is the way we
 - A. are anatomically built
 - B. develop our muscles
 - C. maintain our bodies with vitamins
 - D. move and go about doing our daily activities

3. Lifting places the greatest load on the
 - A. feet
 - B. arms
 - C. shoulders
 - D. lower back

4. To prevent repetitive motion injuries to the hands and wrists it is advised to
 - A. bend your knees when lifting
 - B. take frequent short breaks
 - C. avoid stretching of the hands
 - D. reach for the computer mouse

5. To turn when lifting
 - A. turn at the waist
 - B. pivot with your feet
 - C. pick one foot up and move it
 - D. move only the arms and shoulders

6. All personal electrical devices brought into CS/SPD for use in the department must be
 - A. available for all staff to use
 - B. kept in the supervisors office
 - C. approved by the safety officer
 - D. checked and approved by the Bio Med department

POST TEST QUESTIONS: Safety in CS/SPD

7. Fire exits should be marked with
 - A. reflective iridescent tape
 - B. working illuminated signs
 - C. sign with blinking reflectors
 - D. red fire symbol over the door

8. All hallways, passage ways and exit routes must be kept
 - A. unobstructed
 - B. well lighted
 - C. ventilated
 - D. secured

9. A type “A” fire extinguisher would be used on which of the following types of fires
 - A. gas
 - B. paper
 - C. grease
 - D. electrical

10. The acronym used as a reminder on how to operate a fire extinguisher is
 - A. PASS
 - B. RACE
 - C. PULL
 - D. RUN

11. The acronym used in most facilities to help staff remember what to do during a fire emergency is
 - A. RUN
 - B. JUMP
 - C. RACE
 - D. PASS

12. Participation in your facility’s fire drills is
 - A. optional
 - B. suggested
 - C. mandatory
 - D. recommended

13. All sharps must be transported to the decontamination area
 - A. in red biohazard bags
 - B. in puncture proof containers
 - C. on tables
 - D. by hand

POST TEST QUESTIONS: Safety in CS/SPD

14. PPE includes all of the following except
- A. full face shield
 - B. shoe covers
 - C. latex exam gloves
 - D. head covering
15. If contents of a container of instruments is not clearly visible, the CS/SPD technician should
- A. use a sponge stick or forcep to remove items
 - B. dump the contents into the ultra sonic
 - C. carefully remove items with gloved hands
 - D. return the container to the OR

Directions for Payment and Results

This in-service = \$15

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Payment is accepted in the form of a Credit Card, Facility Check, or Money Order only.
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Please fill out the form below and submit it with your payment and the quiz to:

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If you have any questions, please email heidi@spdceus.com

Thank you!