

# e-Compliance Training

## Ergonomics - February 2020



### THIS TRAINING SESSION IS RECOMMENDED FOR:

All staff members.

### Training Objectives

This training module will ensure that employees understand the importance of ergonomic safety in the workplace, along with the following concepts:

- ergonomic principles, risk factors and musculoskeletal disorders
- neutral body positioning
- administrative, work practice and engineering controls for ergonomics
- personal protective equipment
- reporting signs and symptoms of ergonomic injuries

The purpose of ergonomic safety is to prevent/reduce soft tissue injuries and musculoskeletal disorders (MSDs). Musculoskeletal disorders are injuries to tendons, muscles and joints that occur because of exposure to excessive force, repetitive motions, awkward postures, vibration, etc. Sources of ergonomic injuries/MSDs include lifting heavy items, bending, reaching overhead, pushing and pulling heavy loads. Ergonomic risks in health and dental care include patient lifting/moving, computer/phone work, use of instruments/diagnostic machinery, etc.

Common examples of MSDs include:

- Carpal tunnel syndrome
- Tendinitis
- Rotator cuff injuries (shoulder)
- Epicondylitis (elbow)
- Trigger finger
- Muscle strains and low back injuries

OSHA recommends designing tasks, workspaces, controls, displays, tools, lighting, and equipment to fit employees' physical capabilities and limitations. Doing so will help to reduce the risk of ergonomic injuries and MSDs.

### Engineering Controls

OSHA indicates that engineering controls are the most desired, because they are most effective at reducing risk. Engineering controls should be used whenever feasible. Engineering controls remove or isolate a hazard to reduce injury. Examples of engineering controls that can reduce/remove ergonomic hazards include:

- Using a device to lift and reposition heavy objects to limit force exertion
- Reducing the weight of a load to limit force exertion
- Purchasing tools/hand pieces that enable neutral postures
- Using mechanical devices that allow for adjustments in workstations
- Installing glare screens to reduce glare on computer workstations
- Using headsets for jobs that involve a lot of phone work

### Administrative and Work Practice Controls

A common example of an administrative control is scheduling the work shift to rotate tasks that involve



## Interactive Training Reminder

Compliance Training is an interactive training program in which you can address questions with other staff members or supervisors to obtain clarification for situations in your work setting.

Write down any questions that you have about the training topic and address them with your Training Coordinator or supervisor.

continual exertion, repetitive motion, or awkward postures. Another common administrative control is proper use of equipment that assists in ergonomic safety.

Workstations are constructed from multiple elements, including a desk, chair, monitor, keyboard, mouse, phone, calculator, and other accessories you might use. Workstations might also consist of a piece of diagnostic equipment and its accessories, such as an ultrasound machine with a handheld wand, or a dental hand piece. Workstation set up and adjustment are critical.

### Neutral Body Positioning

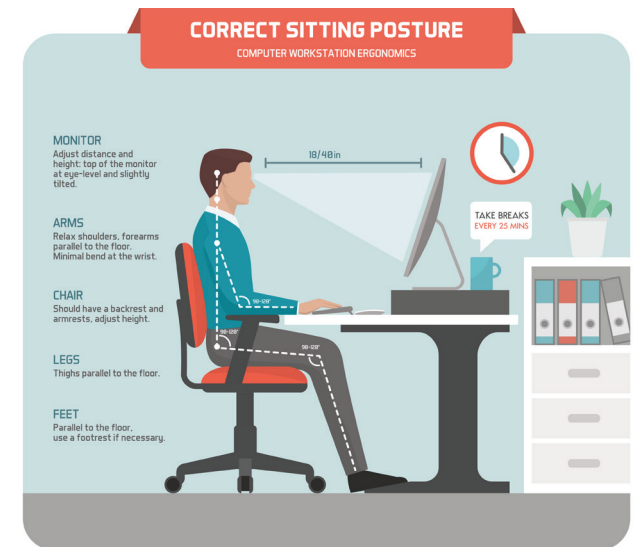
Good posture will help to limit injuries caused by stress (on muscles and joints) and fatigue. However, no matter how good your posture, if you hold the same posture for long lengths of time (known as static posture), your risk of injury increases.

Maintaining good posture involves keeping each part of the body in alignment with the neighboring parts, because proper posture keeps all parts balanced and supported. With appropriate posture (when standing) it should be possible to draw a straight line from the earlobe, through the shoulder, hip, knee, and into the middle of the ankle. Neutral body positioning is having a comfortable working posture in which your joints are aligned so they reduce stress and strain on your muscles, tendons, and skeletal system. See the graphic at right.

#### Action goals for sitting:

- Feet are resting comfortably on the floor or on a footrest, and knees are slightly lower than your hips.

- Keep a 2- 4-inch gap between the back of knees and the front edge of the chair when back is against the chair.
- The curve of the chair back fits into the deepest part of the curve in your lower back.
- The back of the chair is upright or tilted back for comfort.
- Armrests are adjusted so that they are just slightly below your elbows when your shoulders are relaxed.
- Armrests do not interfere with access to keying, mousing, or writing surfaces.



#### Action goals for typing/keying:

- Shoulders are relaxed, and elbows are close to your body.
- Elbows are bent to 90 degrees or slightly greater (inner angle).



- The tops of the “home row” keys are at the same height as your elbows, or slightly lower than elbows.
- Wrists are straight (not bent).

*Action goals when using mouse, trackball, trackpad, etc.:*

- The pointing device is close to the keyboard.

*Action goals when organizing workspace:*

- Reaches performed frequently are within the “near” workspace (your elbows remain at your sides).
- Reaches performed occasionally are within the “near” or “mid” workspace (no more than an arm’s length away).
- You are not reaching across your body to work.

*Action goals when viewing the monitor:*

- It is in front of you and the top line of print is at or just below your eye level or even lower if you wear bifocal, trifocal, or progressive lenses; AND you are able to scan the screen from top to bottom by using only eye movements, not head movements.
- You can sit against the back of the chair and read the monitor screen from a comfortable distance, without experiencing eye fatigue, blurred vision or headaches.
- The monitor screen is free of glare.

*Action goals when reading a document:*

- The document is off the flat work surface and in your line of vision.

- The document is directly next to the monitor or between the monitor and the keyboard.
- The document is at the same distance as, or closer than the monitor.
- You can look at the document and the monitor by moving only your eyes, not your head.

*Action goals when standing:*

- Stand with weight mostly on the balls of the feet, not with weight on the heels;
- Keep feet slightly apart, about shoulder-width and let arms hang naturally;
- Avoid locking the knees;
- Stand straight and tall, with shoulders upright; and
- If standing for long periods, shift weight from one foot to the other, or rock from heels to toes.

*Action goals when lifting:*

- Always bend at the knees, not the waist;
- Use the large leg and stomach muscles for lifting, not the lower back;
- When carrying a heavy or large object, keep it close to the body;
- If carrying something with one arm, switch arms frequently;
- Obtain assistance from another person instead of trying to lift or move extremely heavy items;



*Action goals for working with dental handpieces and other diagnostic equipment (e.g. ultrasound transducers, etc.):*

- Work with your wrist in a neutral position--the wrist held straight, or in a slight extension.
- Use a more relaxed grip, when possible. The distal finger joint is slightly flexed in a relaxed grip.
- Exercise your hands by stretching your wrists and fingers, especially the area between the thumb and index finger.
- Stabilize your hand when performing precise hand tasks. This can be accomplished by resting your fourth and/or fifth digits on the cross arch or opposite arch; or by resting an elbow on the chair back or arm.
- Use larger diameter instruments. Try them out to find one that feels comfortable for you.
- Use instruments that reduce the time spent on a procedure, such as an ultrasonic scaler, with variable and rapid speeds.
- Wear gloves that fit properly and do not restrict hand movement.
- Reduce the force on hands and fingers, and the torque on hands by using instruments and tools that are lighter in weight, balanced, and well sharpened.
- Move the patient closer to you, or adjust the examination chair/table up or down to reduce arms/wrists being pulled away from your body at an awkward angle.

- Adjust chair heights and position yourself so that you are working with your elbow placed lower than your shoulder, and your wrist placed even with, or lower than your elbow.
- Ensure that all cords and hoses are long enough, so that excess finger force is not required to pull or support such hoses and cords.

### **Personal Protective Equipment**

According to OSHA, personal protective equipment is the last line of controls, because it has only limited effectiveness when dealing with ergonomic hazards. Padding can be used to reduce direct contact with hard, sharp or vibrating surfaces. Wrist rests can be used with computer workstations. Stabilizers/braces may help reduce awkward postures in certain situations.

### **Reporting**

Promptly report any musculoskeletal symptoms to your supervisor or Safety Officer, so that work practices and your workstation can be adjusted/evaluated to prevent further injury. A medical evaluation may be provided if it is determined that you have already sustained an ergonomic injury or are developing an MSD. ●



# e-Compliance Training Test

## Ergonomics - February 2020

NAME: \_\_\_\_\_

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

SIGNATURE: \_\_\_\_\_

STAFF POSITION: \_\_\_\_\_

*Return your test to your supervisor or Compliance Coordinator upon completion. Individual tests will be maintained to document participation and understanding of the information. Review the training information to find the correct answers to any questions that may have been missed.*

**1** OSHA has indicated that personal protective equipment is the preferred method of preventing ergonomic injuries, and PPE is the first line of controls over engineering and work practice controls.

**Select One**      **T**      **F**

**2** When lifting a heavy object, you should bend at the waist, not the knees.

**Select One**      **T**      **F**

**3** When reading a document, it should be at the same distance as, or closer than the monitor.

**Select One**      **T**      **F**

**4** Even if you have good posture, if you hold the same (static) posture for long periods of time, the risk of ergonomic injury increases.

**Select One**      **T**      **F**

**5** When organizing your workspace, you should try to arrange it so that you don't have to reach across your body to work.

**Select One**      **T**      **F**

**6** When seated, your knees should be slightly higher than your hips.

**Select One**      **T**      **F**

**7** For actions that involve typing or holding a hand piece or diagnostic device, try to keep your wrist straight, not bent up or down.

**Select One**      **T**      **F**

**8** When viewing a monitor, the top line of text should be at or just below eye level, or even lower if you use bi-focals. You should also be able to scan text by moving your eyes, not your head.

**Select One**      **T**      **F**

**9** Use of a headset is an example of an engineering control.

**Select One**      **T**      **F**

**10** Proper posture when standing is to have most of your weight on your heels.

**Select One**      **T**      **F**