

Toolbox Talk: Work Station Ergonomics

Work Station Design:

The National Institutes of Occupational Safety and Health (NIOSH) recommend the following workstation design features:

- viewing distance to monitor should be 16 - 27 inches
 - viewing angle of the monitor should be 15 - 35 degrees
 - keyboard height of 28 - 30 inches
 - Adjustable chair with lumbar support.
- **Screen Height**
The top of the display screen of your monitor should be at your eye level but not higher. For individuals who wear bi-focals, you may want the screen to be lower and closer. It is important to avoid awkward neck postures when viewing the screen or hard copy documents (that you may be working from).
 - **Keyboard and Mouse Height**
The height of the keyboard and mouse should be at the same level (i.e., you should not be reaching for your mouse). The right “level” is one where you can sit with your shoulders relaxed, elbows bent (around 90°), and forearms, wrists, and hands parallel to the floor. The keyboard should be at an angle that helps you maintain a “neutral” or flat position of your wrists (i.e., your wrists should not be bending up or down).
 - **Posture Support**
Chairs should support the lower back region and help in avoiding pressure on the back and thighs (i.e., chairs should promote a comfortable posture). Your feet should rest firmly on the floor (or a foot rest if necessary).
 - **Chairs**
Employees sitting in chairs, especially all day, should have a comfortable fitting well-designed chair. The following features should be available:
 - Pneumatic height adjustments
 - Seat adjustable with a tilt and depth slider.
 - Backrest separate from seat, is height adjustable, can tilt & lock, and has lumbar support.
 - Arms adjustable - height and lateral movement
 - Various sizes - can have optional lengths, wider seats, tall backs.
 - **Illumination/Glare**
 - Lighting levels in work areas will be set at the recommended levels for the specific equipment/function.
 - Screen hoods and anti-glare filters can be installed upon request but it is important to reposition your monitor as a first step, when feasible, to help alleviate glare problems. For example, monitors should not be positioned in front of windows.

- **Work-Rest Regimens**

- Take frequent breaks, get up and stretch, do not remain at the computer station for long periods of time, allow for rest. Also take vision breaks from the computer by focusing your eyes on objects farther away throughout the day.
- If you can, alternate tasks so that you are not conducting repetitive tasks (e.g., sorting or filing or typing, etc.) for prolonged periods of time. It is important to try to alternate between the various tasks to help prevent fatigue or discomfort.

Back Safety

Back disorders are listed in the "top ten" leading workplace injuries published by the National Institute of Occupational Safety and Health. They account for 27 percent of all nonfatal injuries and illnesses involving days away from work.

According to recent injury figures from the Bureau of Labor Statistics, in 2016, musculoskeletal disorders involving the back accounted for 38.5 percent of all work-related musculoskeletal disorders (134,550 back cases out of 349,050 total cases). (Bureau of Labor Statistics)

Over our lifetimes, 8 out of 10 people will experience a back injury and back pain. Most back injuries are painful and can be debilitating, and life changing.

What can Cause Back Pain

Improper lifting technique
Picking up oversize loads
Using back belts improperly
Posture and poor alignment
Awkward stretches while reaching
Being in poor physical condition
Static work postures

- **Prevention**

Preventing a back injury is much easier than repairing one. Because your back is critically important to your ability to walk, sit, stand, and run, it's important to take care of it, so here are a few basic rules:

- Exercise to strengthen your back and reduce stress
- Lose excess weight
- Maintain good posture – all the time!

- **Some Tips**

Before you lift that box, or tool, or piece of equipment, take a moment to consider your action:

- Do you need to lift the item manually?
- How heavy is it?
- Is it packed correctly?
- Make sure the load is balanced
- Is it easy to reach the load?
- Where are you moving the item from?
- Where does it have to go?
- What route do you have to follow?
- Make sure that there are no obstacles before you start to lift or carry

When Lifting:

- Keep feet parted for stability
- Squat down bending at the knees (not your waist). Tuck your chin while keeping your back as vertical as possible.
- Get a firm grasp of the object before beginning the lift.
- Begin slowly lifting with your LEGS by straightening them. Never twist your body during this step.
- Once the lift is complete, keep the object as close to the body as possible
- Pace yourself and get help before you try to lift a heavy load.
- Use mechanical lifting devices to lift and or move heavy objects. If using a forklift or similar type device, make sure you have the appropriate training.
- Slide heavy materials if possible, rather than lifting them. Planks and rollers can make this job easier.
- Storing materials at least 12 inches off the ground, can minimize having to lift directly off the ground.
- Never try to catch heavy falling objects.