

Ergonomics – *Using force to your advantage*



Ergonomics is the proper movement and use of equipment to avoid injury. The muscles in your back are almost in constant use and it is important that you maintain the health of your back while performing daily activities. These muscles hold your torso upright and they assist you whether you are picking up something heavy or something as light as a pen.

When moving objects at work or at home consider the potential risk factors. Evaluate the amount of physical effort required to perform a task such as heavy lifting. Repeatedly performing the same motion or series of motions continually or frequently for an extended period of time can cause stress and injury. Awkward and static postures can place stress on the body. Prolonged reaching above the shoulder height, kneeling, and squatting are examples of these awkward postures. When there is contact stress, such as pressing against a particular part of the body, there is an increased risk of injury. *When there are several risk factors in a job, there can be a greater risk of injury.*

Proper Lifting and Carrying Techniques:

- Before lifting boxes and cases, check the weight so you can prepare to lift properly.
- Turn the body as a unit to avoid twisting at the waist.
- Keep the item close to your body.
- Keep your back straight.
- Use your leg muscles to do the lifting.
- Lift smoothly without jerking.
- Get close to where you want to set the item down.

Proper Use of Force

- Use a rolling cart or hand truck when moving heavy items.
- Use a full body turn instead of bending at the waist.
- Perform tasks above the level of the waist rather than below.
- When performing repetitive tasks rest and stretch body or hands at frequent intervals.
- Use a power grip, wrapping fingers and thumb around objects, instead of a pinching grasp.
- Fatigue mats are recommended when standing for long periods.

Proper Posture While Performing Tasks at a Desk

- Rest the wrists on a soft surface and do not place them against the hard surface of the computer.
- Make sure the back is supported and that there is support of the lower back. Make sure feet rest comfortably on the floor and that knees are bent but not against the back of the chair.
- The eyes should focus on the screen of the computer without having to look down. The screen should be level with the eyes.
- The arms should be comfortable at the side of the body with the elbows at a 90 degree angle
- Make sure the height of the work station and the chair give the body proper distancing and good posture is maintained.

Utilize stretching of all muscle groups throughout the day. Give your eyes a break from staring at the screen by taking frequent breaks. Perform back and leg strengthening exercises before beginning work. Even a few extra pounds can increase strain on back muscles. Walking and aerobic exercise can help you to lose weight and thereby reduce the risk of an injury.

References:

- <http://www.nih.gov/od/ors/ds/ergonomics/compworkergo.html>
- <http://www.osha.gov/ergonomics/guidelines/retailgrocery/images/insert8-9-all-in-one.gif>

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