

ERGONOMICS GUIDELINES

Ergonomics is the scientific study of human work. It considers the physical, behavioral and mental capabilities and the limitations of the worker as they interact with tools, equipment, work methods, tasks, and work environment. The purpose of using good ergonomics in the workplace is multi-fold. Good ergonomic position reduces the physical stress of a job and improves the quality of work life. Proper ergonomics also increase productivity by increasing health, comfort and safety of a work environment. The goal of ergonomics is to work smarter and fit the job to the worker, not the worker to the job.

Musculoskeletal disorders can be caused by cumulative trauma, including but not limited to Carpal Tunnel Syndrome, Tendonitis-forearm to hand, Epicondylitis-elbow and Rotator Cuff Syndrome-shoulder. In order to prevent Cumulative Trauma Disorders (CTD's) to the musculoskeletal system, we must first identify aggravating factors. Identifying the causes of CTD's is challenging because no one single causative factor will lead to a CTD by itself. It is the interaction of several risk factors over time that may lead to a CTD.

Risk factors for CTD's include:

1. Awkward Posture
Postures that are not our normal standing and sitting posture, such as, bending, twisting, turning, long-arm reaching, cradling the telephone with the neck.
2. Force
Gripping, grasping, and pinching activities such as picking up large file folders or stapling.
3. High Repetition
Movements over and over again with hand, arm, or shoulder, frequency and/or duration increase risk.
4. Contact/Mechanical Stress
Direct pressure on nerves – soft tissues of our body coming in contact with something that is hard, sharp or rough.
5. Static Load
Keeping muscles in one place for long periods of time.
6. Vibration
Using tools such as jackhammers, plate compactors.
7. Temperature Extremes
Heat and cold.

Symptoms to look for and report to your Supervisor:

1. Pain, numbness and tingling in the thumb and first three fingers or last two2 fingers.
2. Shaking your hand to get the feeling back
3. Weakness in the hand
4. Pain and discomfort in wrist
5. Pain going up to elbow or shoulder
6. Clumsy feeling in affected hand

To reduce Cumulative Trauma Disorder (CTD) risk factors, District employees should use the following guidelines when setting up workstations.

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Keyboard

1. Shoulders should be relaxed with arms hanging comfortably by sides.
2. Bend at the elbows so that the arm is in a 90-degree angle and elbows are at waist.
3. Forearms come straight out with palms hovering over thighs. Wrists are flat. Position keyboard and or tray under palms.
4. Use padded articulating tray large enough to accommodate both keyboard and mouse.

Mouse

1. Should be located next to and at the same level as the keyboard.
2. Use padded foam wrist supports for mouse and keyboard to elevate wrists to neutral and eliminate contact with hard surfaces.

Chair

1. Sit all the way back in the chair to allow weight distribution on buttocks, not thighs.
2. Hips and knees should be level and positioned in a 90-degree angle.
3. Feet flat on the floor or footrest.
4. Backrest is upright with lumbar support at small of back, head aligned over shoulders.

Monitor

1. Monitor should sit "straight on" to employee – not at an angle.
2. Top of monitor screen should be at eye level or just below (except if wearing bifocals, the monitor can be lower).
3. Optimum viewing distance is 20 to 30 inches.
4. Minimize glare by placing screen at right angles to light source, using anti-glare screen, or adjusting the screen angle.

Telephone

1. Telephone "neck holder" devices that encourage awkward neck and shoulder posture while on the phone should be removed and eliminated.
2. Place telephone within easy reach to eliminate long arm reaching.

Document Holders

1. Recommended for copy-intensive work.
2. The holder should be placed at the same level as the monitor screen.

Shelves

1. Frequently used items located in shelving above shoulder height should be moved down below shoulder height.
2. Use a "two-handed" lift when lifting large 3-ring binders.

Stretch Breaks and Micro-Pauses

1. Incorporate preventative stretch and exercise breaks from constant keying every hour.
2. Change from static positions every 30 minutes to help reduce neck and lower back strain.