



ST. LUKE'S
IOWA HEALTH SYSTEM

For the life of Siouxland.



“WorkSmart” Computer/ Office and Laptop Ergonomics:

By Erik Nieuwenhuis MS, PT St Luke's Health System Work Injury Prevention Specialist, Wellness Consultant, and Health Coach
712-279-1842 Nieuween@stlukes.org

- Keep feet flat on the floor or footrest and work to keep your sitting posture and hips square for most of the workday, instead of crossing your legs or sitting on your feet
- Make sure you know how to adjust all parts of your chair (back rest height and angle, and seat pan angle should vary between neutral and slightly tipped forward), Have it adjusted correctly (hips slightly higher than knees) and vary this slightly throughout the day for posture variety!!
- Use upper extremity weight bearing support (for forearms—lightly) when typing or using the mouse (Tabletop/ keyboard tray/ and or armrests of chair can accomplish this)
- Know how to properly adjust your keyboard tray (neutral to slightly tipped away from you....This reduces awkward postures to your wrists and forearms when using your mouse or typing)
- Keep elbows close to your sides when typing or using the mouse (Reduces neck/ shoulder and upper back fatigue risks...also reduce elbow/ wrist and hand fatigue and risks for MSD/ CTDs). It is highly recommended to use an external mouse when using a laptop and not using your fingertips (pinch postures) for prolonged periods of time
- Have your monitor directly in front of you and the top line of your monitor at or just below eye level, and approximately 1 arms length away from your body... You will need to have your monitor much lower and likely closer if you use bi/ tri focals (You want to avoid having to frequently extend and flex your head)
- Have you monitor angle tipped slightly back away from you as this makes it easier to read and less stressful to your eyes (natural reading angle for your eyes)
- Use a document holder to avoid forward head/ shoulder posture and leaning your trunk forward or towards R or L side when keyboarding (This avoids awkward trunk, neck, and shoulder postures)--- Best position is between your keyboard and monitor
- Avoid awkward reaching for your mouse, keyboard, phone, calculator, and paperwork
- **Laptop and paperwork ergonomics use a 2-3 inch three ring binder with your work propped back towards you to keep your body more upright and in a better posture when working (KEY to Working Smart!!)** You also need to take more frequent breaks when using a laptop to stretch, walk around, and breathe.
- **If using a laptop for most of your computer work** it would be highly recommended to purchase a monitor riser and an external keyboard and mouse along with a document holder to keep your paperwork between your keyboard and monitor (see photo above---My workstation).
- Avoid propping the phone between your neck and shoulder (key contributor to headaches)
- **Stand and Stretch and Move often...** Your body is worth the effort and attention!! (This is especially true for those who use laptops or those workers who spend most of their workday sitting at a computer workstation)

Principles of WorkSmart Ergonomics for the Workplace and Home to improve your safety/ health and the overall wellness levels of your employees and family are;

- 1) Keep Everything Within an Easy Reach.** If you work at a computer workstation keep your mouse and keyboard close to you so you can keep your elbows as close to your sides as possible! Also check the position of your phone, paperwork, and calculator, etc for there setup position. Keep frequently used items in your workday within an easy arms reach. When driving your car/ vehicle work to try and maintain between 20 or more degrees of elbow flexion (approximately to reduce upper back/ neck and shoulder fatigue).
- 2) Work at Proper Heights** Keep most of your daily work between knee and shoulder level when standing (or storage of equipment/ tools that are used frequently or most awkward size/ shape and weight; Waist to mid chest height is ideal for most of your daily work standing. **Most people need to have their computer monitor raised to have the top line of the monitor at or just below eye level. If you use bi/ tri focals you will need the monitor positioned at a lower height to avoid repeated extending of your head and the risk for headaches.** If you are involved in patient care activities for your career or taking care of a loved one make sure to raise and lower the bed (if you are able) to a good working height for you (this reduces increased awkward postures to your lower back/ neck and shoulders). If you must work above shoulder level use a ladder or stool to keep your work between waist and shoulder level (or make sure you take more short breaks to stretch and change positions). If you must spend time working below waist or knee level, kneeling (use a foam ergomate), and squatting make sure to use the "3D Squat Matrix" postures, and use a stool to sit occasionally if able.
- 3) Reduce Excessive Forces** Watch your work and home habits for how hard you grip or pinch the following throughout the day; **Grip: Hand and Fingers and Pinch: Tips of fingers**

--The more vibration the tools/ equipment have the more force is required of the worker/ person...so to WorkSmart make sure to listen to your bodies fatigue level and take more "pit stop" breaks to stretch throughout the day!!

Pen/ pencil, mouse (use external mouse, instead of fingertip pads on laptop for prolonged use), cell phone/ telephone (limit texting if you have elbow/ wrist/ finger and/ or hand injuries), steering wheel, silverware, PDA, video game controllers, cup/ glass, and tools/ equipment used at work and at home. Make sure to always use a hoist, or safe patient handling lifting equipment for those who work in healthcare field or are taking care of family. **Watch your sitting posture habits and try to avoid prolonged;** Pulling your legs back underneath your chair (if you have knee pain), and Crossing your legs or Sitting with your legs wide apart (Both can lead to lower back/ Sacro illiac pain "Sciatica" and also increase wear and tear to your knees and hips). Make sure to use good "3D Squat Matrix" posture variety when lifting/ pushing or pulling during the day.

- 4) Work in Good "WorkSmart" Postures**
Example is in Lifting/ Push and/ or Pull postures...Keep your head up, wider than shoulder width base of support with feet staggered (Key for your lower back and shoulder's health and safety), and keep the load close to your body. Use your body momentum to push and pull. Reduce your daily exposure to work that is above shoulder level and below knee level. Use proper Computer workstation WorkSmart Ergonomics at work and at home.

***WorkSmart, PlaySmart, and LIVESmart
Your Body is Worth the Effort!!***