

Ergonomics and Computer Mouse Use

Ergonomics is the science of fitting the workplace to the worker to reduce the risk of injury. The benefits of good ergonomics can include improved health and safety as well as general comfort. In order to reduce your risk of developing Work-related



Musculoskeletal Disorders (WMSDs), it is important to use your computer in a neutral posture. This will help prevent soft tissue WMSDs, such as Carpal Tunnel Syndrome and Tendonitis. The neutral posture is the optimal position of your body that promotes strength, speed, precision, blood flow, and nerve conduction while reducing the risk of injury. Even a neutral posture can be fatiguing if held all day; therefore, micro-changes in posture and stretching are recommended. In order to promote a neutral posture while using a mouse or other input device (trackball, glide pad, stylus, etc) you should maintain a straight wrist, hand

and forearm position (parallel to the floor) with your elbows by your sides (bent between 90-120 degrees) and shoulder relaxed. Here are some other things to keep in mind while using your mouse:

Tips:

1. *Avoid compression* - While keying, keep the wrist straight without resting on any surface, such as the edge of the desk, which could cause compression.
2. *Stretch*- Frequent mini-breaks for stretching can help reduce fatigue.
3. *Avoid reaching* - Keep the mouse as close as possible, preferably directly adjacent to the keyboard. The mouse should not be in front of or behind the keyboard. The keyboard and mouse should be at the same height (equal to the user's seated elbow height) and as close to the front edge of the desk as possible.
4. *Fit the hand* - Input devices such as a mouse or trackball come in sizes and should be comfortable for the user.
5. *Try something different*- Alternative input devices such as a trackball, glide pad, or tablet may be more comfortable for the user and more appropriate for certain tasks. For example, tablets are good for people that do drawing and digital editing. Alternative input devices may take some getting used to and aren't for everyone so it is best to try it first and see if it will work comfortably. Thumb operated trackballs are not recommended for repetitive use.

6. *Click lightly / infrequently*- Reduce the amount of force used to click the mouse and learn how to use common function keys for editing.
 7. *Keep it clean*- Make sure any moving input device parts and the working surface are kept clean and free of dust.
 8. *Rotate*- Alternating between input devices and even between your left and right hands can give your hand a break. A Y-splitter may allow you to plug in more than one input device at a time so that you can easily alternate.
 9. *Adjust the mouse*- Change the sensitivity/speed of your mouse so that you can minimize hand movement
 10. *Avoid the death grip!* Gently hold and move the mouse while letting your hand rest between uses.
 11. *Accommodate lefties* – Left-handed users may feel more comfortable with a left-handed mouse. Alternatively, a traditional mouse can be modified so that the primary and secondary buttons are reversed for easier clicking by left handed users.
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