Ergonomics is the science of enhancing worker productivity. To improve worker productivity, employers and employees should pay attention to the design of the workplace, the equipment used, and how the work processes take place. The goal is to set up an office workstation that allows the user to maintain a “neutral seated position” which will be more comfortable and ergonomically sound.

Employers should develop a “telecommuting” policy that indicates the “who, what, when, where and how” employees can telecommute.

Many home based telecommuter users may be using a “table” as a workstation if they do not have an existing office style desk to set up the workstation. The goal is to make the “kitchen” table set up as ergonomically correct as possible.

The average workstation height of most manufactured desks is generally 29 - 30 inches. Based on the height of the user, the keyboard height may need to be adjusted to a slightly lower level. Having an adjustable “office” chair can help attain a better neutral ergonomic position.

An attempt should be made to set up the home office to meet the same health and safety standards as those available at work. For example, ideally you should make sure that:

- Your desk, chair and other accessories are of a comparable (equal) quality to that in the office. For example: the desk should be the appropriate height and sturdy enough to handle the weight of any peripheral equipment that you may place on it (e.g., computers, printers, fax machines, scanners, etc.).
- Your workstation is adjusted properly: the keyboard is at the right height (wrists are in a neutral position). The kitchen table is not an ideal work surface as the table generally can be too high and doesn't allow for proper positioning of the wrists in relation to the keyboard.
- Lighting is properly arranged: there should not be reflections on or glare from windows on the computer monitor. Ideally it may be best if the lighting is directly above the workstation.

An appropriate workspace at home should consider:

- A space or room where it is easy to concentrate - preferably separate from other living areas and away from the television.
- Necessary telephone cable lines for e-mail and internet connections, if necessary answering machine or voice mail.
- Appropriate or comfortable temperature, light and sound.
- Household members should understand you are working and will not disturb you unnecessarily.
- A level of security if required by the workplace.
Obtaining a Neutral Seated Position

CHAIR

Ideally the chair used should be fully adjustable. The chair should be able to raise and lower to accommodate the user to achieve an appropriate height to the workstation surface. If you can adjust the chair, ideally your feet should rest comfortably on the ground when you sit. Although not ideal, however, if the surface of the desk is higher than 29 inches the chair may have to be raised to accommodate the height of the workstation surface to allow proper arm and wrist position. If the chair doesn’t adjust, find some type of footrest that you can put under your desk to support legs that do not reach the floor. If necessary you may place a thick folded towel to sit on to raise your position for the workstation to compensate. Good lumbar support will reduce back strain.

Make sure there are no items under the desk that can block your legs from getting under the (desk) or workstation surface.

MONITOR SCREEN

The monitor screen should be positioned central to the user on the workstation surface. The monitor should never be position “off centered” or to the left or right side of the workstation. In general the top of your computer screen should be about level or slightly lower with your eyes. This monitor height may vary slightly if the user is wearing corrective lenses such as bifocals. The monitor or (dual monitors) if used should be positioned on the workstation about an arm’s length from your body.

KEYBOARD / MOUSE

Most home set ups will use the keyboard and mouse directly on the workstation surface in front of the monitor. This height may be slightly high for some users that are not of “average” height. The mouse must be positioned at an equal level to the keyboard tray. Proper position of the keyboard should allow the shoulders to be in a relaxed position, with the elbows at a ninety degree angle at the side of the body. The position of the wrists should be flat or straight when resting and typing on the keyboard. Wrist rests may be an option to maintain this neutral position.

For excessive keyboarding with a laptop which has a more compressed keyboard it may be more comfortable to use a full sized keyboard tray if possible. It is not always necessary to use the riser feet on the keyboard unless they assist in keeping the wrists flat.
WORKSTATION SURFACE

When positioning “work related” items, such as calculators or staplers on the desk surface the goal is to place items that are used frequently within an 18 inch reach. Items such as files which are used occasionally should be positioned in the next outer 18 inch reach.

Users who are right handed should set up the work surface to allow a clear space on the right side of the desk to conduct work tasks such as note taking or paper processing. For the right handed worker that requires a phone on the desk surface, position it to the left side of the desk. For left handed workers that same applies just the opposite or to the left side of the desk.

Electrical Safety

- Are extension cords in good condition and positioned properly?
- Are cords and cables causing a tripping hazard?
- Are outlets grounded and not overloaded?
- Is there surge protection for electrical equipment?
- Is there sufficient ventilation for electrical equipment?

There are a few principles to keep in mind if you want to improve ergonomics in your workspace:

- Don’t perform a task too many times
- Avoid sitting or staying in a position for too long
- Use the most comfortable tools available for the job
- Audit your workflow for productivity and efficiency

The workstation surface should be set up the same when working in a standing position. It is important that the arms and wrists maintain a neutral position.
Simple Exercises to Reduce Muscular Stress from Sedentary Work

**Head and Neck Rolls**
Benefit: Stretches and relaxes neck and shoulder tension while synchronizing movement with breath. Focuses the mind while activating deep breathing.

**Spinal Twists**
Benefit: Rotations support the upright position and increase flexibility and elasticity in the spine. Spinal twist helps to unwind and decrease stress levels.

**Alternate Tasks**
Benefit: Stretches and elongates the muscles in the back of legs and dorsal side of the spinal column. Forward bends stimulate, expand awareness and strengthen concentration.

**Neck and Shoulders**
- Roll your shoulders forward and backward with your arms at your sides.
- Turn your head slowly from side to side. Other neck stretches include tipping your head towards your shoulder and lowering your chin to your chest.

**Hands and Arms**
- Stretch arms and upper back. Straighten arms in front of you with fingers interlaced and palms facing away from your body.
- Put your palms together in front of your chest. Slowly lower your hands until you feel a mild stretch in your forearms.

**Upper and Lower Back**
- Stretch shoulders and upper back by interlocking fingers behind your head and pulling your shoulder blades toward each other. This will help release tension and tightness.
- Pull your leg up to your chest slowly by grasping the shin. Hold it for 5-10 seconds, then do the other leg.