

quently “handed” (they can only be used with either the right or left hand, but not both).

## Stretch Breaks

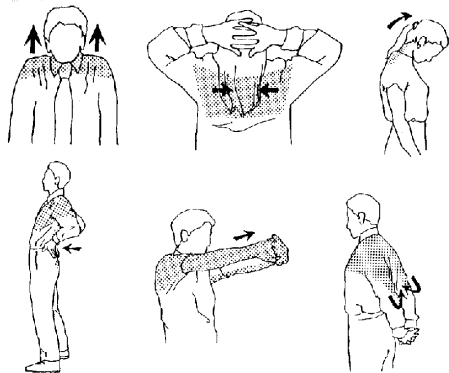
Take a break periodically throughout the day and stretch. Stretching helps divide up repetitive activities, relieve tension and gives fatigued muscles a chance to recover. Remember, stretching should not be painful. Pain can be an indication that you are over-stretching or may be indicative of other health concerns. Here are some ideas for stretches you can do at your desk:

Raise the tops of your shoulders towards your ears and hold for 5 seconds. Release. Repeat 5 times.

Tilt your chin towards your neck and hold for 5 seconds. Release. Repeat 5 times.

Turn your head towards your right shoulder. Hold for 5 seconds and release. Repeat on the other side. Repeat 5 times on each side.

Clench your hands into a fist and hold for 5 seconds. Release, separating and fanning out your fingers until you feel a stretch. Hold for 5 seconds and release. Repeat the entire cycle 5 times.



## Purchasing new equipment?

UNH maintains term contracts with furniture vendors for items such as ergonomic chairs and/or desks. A list of our term furniture vendors is available on the EH&S Blackboard site or by contacting OEHS.

If you need to purchase accessories (Including, but not limited to alternative keyboards, alternative pointing devices, and keyboard trays) there are a large number of vendors available via the internet. OEHS can help you to narrow down the wide variety of choices and make suggestions for features that may best suit your requirements. In some cases you may need to try a product to determine whether or not it meets your needs.

Remember— For access to ergonomic information on Blackboard contact the Office of Environmental Health and Safety.

[www.unh.edu/ehs](http://www.unh.edu/ehs)  
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# A Guide to Computer Workstation Setup

University of New Hampshire

Office of Environmental Health and Safety



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## Introduction to Ergonomics

Computers are everywhere. Many people do not realize that a poorly designed computer workstation and bad work habits can result in serious health problems. Common problems associated with poor design or habits include discomfort in the back, neck, shoulders, hands, wrists, in addition to headaches and eyestrain. Individuals regularly working with computers should pay special attention to these symptoms.

Many different disorders can arise from the gradual development of small injuries or stresses to the body and are generally referred to as Cumulative Trauma Disorders (CTDs). CTDs are prevalent among today's electronic work environment and are often referred to as repetitive stress injuries (RSIs), work-related musculoskeletal disorders (MSDs), repetitive motion injury (RMI), or occupational overuse syndrome. They are the cumulative product of many smaller injuries over time. There are several risk factors that can lead to these disorders, including:

- Repetitive motion
- Prolonged awkward postures
- Excessive force
- Contact stressors
- Inadequate recovery time
- Personal risk factors (i.e., stress, poor diet, lack of exercise)

If you are developing a CTD, you may begin to experience one or more symptoms in the affected region of your body. These symptoms may include numbness, pain, swelling, tingling, aching, burning, or loss of strength. Some common forms of CTD that affect computer users are Carpal Tunnel Syndrome and tendonitis.

There are many things that you can do to prevent CTDs. The best method of prevention is to adjust the office furniture and computer equip-

ment to fit your body. The Office of Environmental Health and Safety (OEHS) has developed ergonomic training materials on Blackboard that can guide you through setting up your workstation to fit your body. If you do not already have access to the OEHS Blackboard website, you can request access by calling 862-4041. The remaining section of this brochure provides general guidance for setting up your office equipment.

## Chairs

Maintaining good posture while using a computer can prevent a host of discomforts across your body, especially back and lower limb pain. This does not mean you should maintain the same posture throughout the day. Strive to vary your sitting postures and remember to take periodic breaks that involve getting up from your seat. When sitting in your chair you should have a 90 degree bend at your knees when your feet are flat on the floor. Your chair should support your back as you sit upright.



## Monitors

Your monitor should sit directly in front of you, and in line with the keyboard (never to the side where you must twist your neck or body to view the screen). Typically the top of the screen should be at or a little below your eye level. This promotes a natural downward angle when you are viewing the screen. People who wear bi- and tri-focal lenses will need to place the screen a little lower to prevent tilting the neck to view the screen. The monitor should be at about arm's length away from your body, give or take a little depending on your comfort.



## Keyboards

The position of your hands and wrists on the keyboard is important. The keyboard should be at or slightly below elbow height, and parallel with your forearms. If your keyboard has feet on the back that prop the keyboard up, make sure to lower those feet, in order to keep your wrists straight.



Many people have desks that are not adjustable for height. Keyboard trays are frequently added to desks to allow the user to adjust the height of the keyboard to best suit their body. Many newer keyboard trays have an adjustment for slope, or tilt. If your keyboard tray has this adjustment take care not to use a positive slope (i.e., the back of the keyboard is higher than the front) as this creates an unnecessary bend in your wrist. However a slight negative slope (i.e., the front of the keyboard higher than the back) can help promote straight wrists and is often suggested for people who are experiencing mild wrist pain.

## Mouse

The mouse should be positioned as close to the keyboard as possible, and at the same height. Avoid resting your forearm or wrists on a sharp edge or hard surface as this constant, direct pressure (i.e., contact stress) may lead to discomfort.

If you are experiencing fatigue or soreness in your mousing hand, try using shortcut keys more frequently instead of pointing and clicking with the mouse. You can also try periodically switching the mouse to your other hand to reduce fatigue in your dominant hand. There are many alternatives to using a traditional mouse. Some of the more frequently used alternatives are trackballs and touch pads. Take care when choosing alternative mice as many designs are fre-

