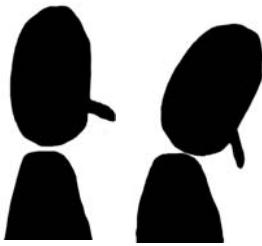


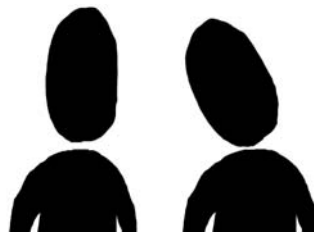
E XERCISE USING STRETCHES AND POSTURE PROMOTING ACTIVITIES!

HOW?

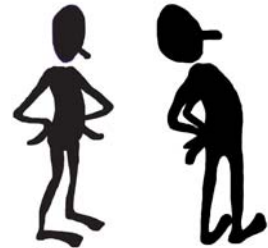
Chin Tuck



Side Stretch



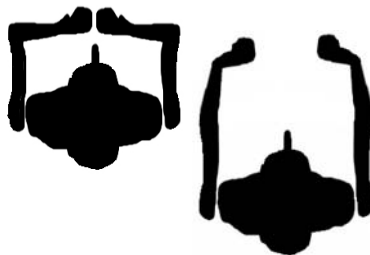
Back Bend



Shoulder Roll



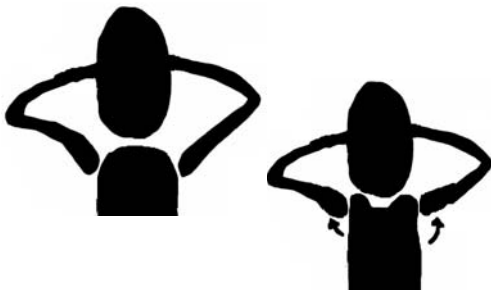
Tennis Elbow Stretch



Loose Golfer



Shoulder Stretch



Hand Spread



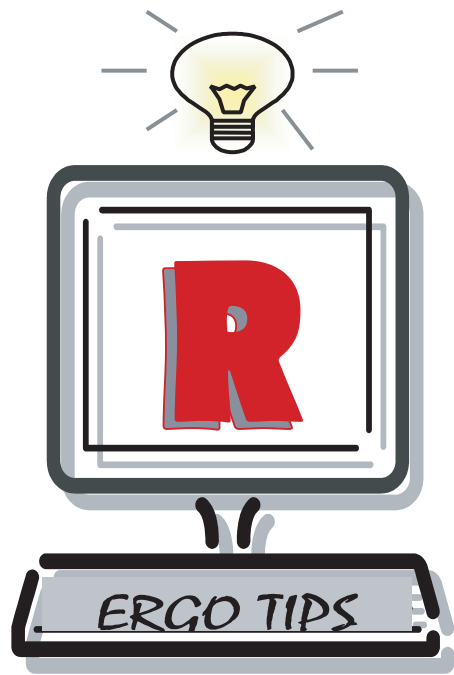
See ERGO-cise handout for details and more exercises!

ERGO-CISE For Your Body

Exercising while working at your computer can help prevent or ease pain and relieve the physical stress that can build up in your wrists, elbows and spine. These exercises should be performed slowly with ease. Consult your medical practitioner before performing these exercises if you have a pre-existing injury. The following stretches are designed to prevent stiffness and muscle tension as well as improve blood circulation to parts of the body commonly injured as a result of sitting at your computer space for prolonged periods of time.

When performing these stretches, sit or stand in a comfortable position. Stop if you feel pain at any point!

Neck:			
<u>Side Stretches:</u> <ul style="list-style-type: none"> o While keeping your shoulders down, move your head slightly to one side, bring your ear closer to your shoulder o Relax and hold for 5-10 seconds o Switch sides 	<u>Chin Tuck:</u> <ul style="list-style-type: none"> o Bring head into a neutral, upright position o Lower head until chin tucks into your neck o Try to touch your chin to chest o Hold for 5 seconds, return to relaxed upright posture 	<u>Turning:</u> <ul style="list-style-type: none"> o Begin with head in neutral position o While keeping your shoulders down, turn your head slowly to one side looking over your shoulder o Hold for 5-10 seconds, relax o Switch sides 	<u>Lateral Neck Stretch:</u> <ul style="list-style-type: none"> o Start with head in neutral upright position o Place left hand on right shoulder o Tip your ear to the left shoulder o Hold for 5 seconds o Switch sides
Shoulders:			
<u>Shoulder Roll:</u> <ul style="list-style-type: none"> o Relax arms by your sides o Slowly rotate your shoulders in a forward motion for 10 seconds o Reverse direction, rotating shoulders backward for 10 seconds 		<u>Shoulder Stretch:</u> <ul style="list-style-type: none"> o Lock hands behind head with elbows pointed out to the sides o Pull shoulder blades together o Hold for 5 seconds o Relax for 5 seconds and repeat stretch 	
Back:		Hands:	
<u>Back Bend:</u> <ul style="list-style-type: none"> o Put hands on lower back and stand with feet shoulder width apart o Slowly lean backward o Lean until you feel a gentle pull on the stomach muscles o Hold for 5 seconds 		<u>Hand Spread:</u> <ul style="list-style-type: none"> o Make a fist with both hands o Hold tightly for 3 seconds o Spread your fingers as far as possible o Hold for 3 seconds 	
Wrists:		Elbow:	
<u>Loose Golfer:</u> <ul style="list-style-type: none"> o Extend arms in front of you o Make a fist with left hand o Keep left arm straight, cup right hand around left fist o Gently use right hand to bend left wrist in towards your forearm o Gently pull as you count to 10 o Switch hands and repeat 		<u>Tennis Elbow Stretch:</u> <ul style="list-style-type: none"> o Extend arms in front of you at shoulder height o Bend both elbows to 90 degrees, turn palms away from face o Make a fist o Slowly straighten arms 	
Knee and Ankle:			
<u>Hold Knee</u> <ul style="list-style-type: none"> o While sitting, place both hands around the back of your thigh o With knee bent, pull leg towards chest o Lean forward slightly to touch your chest to the top of your knee o Hold for 5 seconds, rotate your ankle in a circular motion, resume upright seated position o Repeat 3 times, switch legs 			



REST YOUR EYES! USE
ADEQUATE LIGHTING TO
AVOID EYE STRAIN!

HOW?

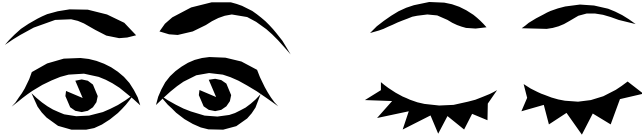
- ✓ Take frequent vision breaks by looking as far away as you can every 15 to 20 minutes. Or practice exercise to energize tired eyes. See the ERGO-size handout.
- ✓ Position your monitor to facilitate a slight downward gaze.
- ✓ Make sure your eyeglass prescription is appropriate for your monitor viewing distance.
- ✓ The distance between you and your monitor should be between 18" and 30."

ERGO-CISE For Your Eyes!

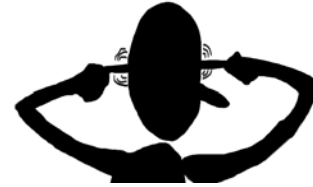
Re-energize Your Eyes! Take a Vision Break!

Exercise #1

Step #1 Blink your eyes slowly...focus on feeling your eyelids touching the lower lids. (Repeat 10 times)

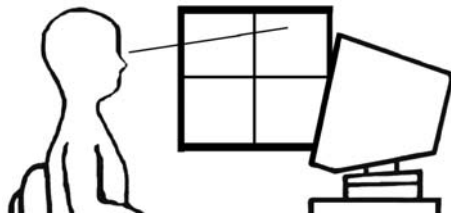


Step #2 Blink your eyes lightly and quickly 10 times. End the set with a relaxing massage of the temples.

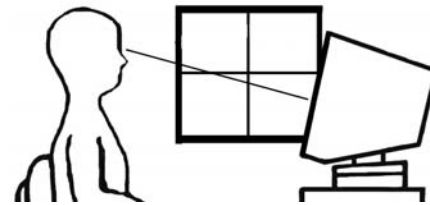


Exercise #2

Step #1 Focus your eyes on the farthest object in the distance for 5-10 seconds. Blink your eyes and breathe

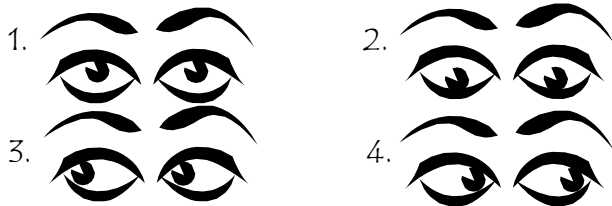


Step #2 Return your vision back to the screen and refocus. Repeat from **Step #1** 3 times.



Exercise #3

Step #1 Move your eyes gradually and smoothly up, down, side to side and diagonally. Repeat 2 times.



Step #2 Move your eyes, in a smooth circle, clockwise and then counter-clockwise. Repeat 2 times.



Exercise #4

Step #1 Close your eyes and cover them with your palms. Let yourself experience total darkness for 20-30 seconds. Take a few long, slow deep breaths



Note: While performing this exercise: Relax your face, brow and jaw. Do not Squeeze eyelids shut.



GET AWAY! BREAK UP
COMPUTER USE INTO
SHORTER SESSIONS!

HOW?

- ✓ Alternate tasks to make changes in your working position.
- ✓ Eat your meals on a regular basis, away from the computer.
- ✓ Exercise daily to improve fitness and counteract the strain of sedentary computer use.
- ✓ When taking breaks, completely rest from flexing hands and wrists for at least 5 minutes.
- ✓ If possible, take a 1-2 minute break every 20 minutes, take a 5-10 minute break every hour, and try an alternative activity every 2 hours:
 - Change your environment (i.e. go to another room)
 - Call a Friend
 - Take a Brisk 5-10 minute walk
 - Climb stairs
 - Perform ERGO-cises/stretches (see handout)
 - Practice relaxation exercises
 - Do jumping jacks and/or sit ups

ERGO-Tips: Symptoms, Sources

Symptoms:

Q: **When should I see a health care provider?**

A: If you have loss of sensation or muscle mass, constant pain, weakness, or problems carrying out your necessary computer work. If you have any of these symptoms, see your health care provider:

- | | | |
|--|---|--|
| <input checked="" type="checkbox"/> Loss of feeling, in hands, wrists or arms | <input checked="" type="checkbox"/> Lingering weakness in your hands | <input checked="" type="checkbox"/> Your hands go to sleep during the night, especially along the thumb side |
| <input checked="" type="checkbox"/> A squeaky or "crackling" feeling when you move your wrists | <input checked="" type="checkbox"/> Pain that's fairly constant | <input checked="" type="checkbox"/> You can't do the work you need to do |
| <input checked="" type="checkbox"/> Decrease in the size of hand muscles | <input checked="" type="checkbox"/> Tingling sensations in your hands, especially if you also have other symptoms | |

http://ergonomics.ucla.edu/Ergowebv2.0/quick_ergo.htm

<http://www.ergoweb.com/resources/faq/>

Q: **What is an MSD?**

A: MusculoSkeletal Disorders (MSDs) are injuries and disorders of the muscles, nerves, tendons, ligaments, joints, cartilage and spinal discs. An example of these types of injuries is Carpel Tunnel Syndrome. MSDs can be directly and indirectly related to aspects of the work or computer station environment known as risk factors. Other terms, such as cumulative trauma disorder (CTD), repetitive stress injury (RSI), and repetitive motion injury (RMI), mean roughly the same thing as MSD. MSD risk factors can be defined as actions at your computer station or in (or out of) the workplace, or a combination thereof that may cause or aggravate an MSD. Examples include forceful exertions, awkward postures, repetitive exertions, and exposure to environmental factors like extreme heat, cold, humidity or vibration. It is often a combination of these risk factors that, over time, can lead to pain, injury, and disability. These risk factors can be reduced through informed purchasing and computer station design. The manner in which a risk factor leads to an injury/disorder is usually through the accumulation of exposure to the risk factors. An event such as lifting, pushing, or pulling may stress body tissues, yet the exposure may be too low for traumatic injury, and the tissues recover. Repeated exposure to this stress, on the other hand, may interfere with the normal recovery process and produce disproportionate responses and eventually an MSD type injury.

Sources:

BACK PAIN: What can cause discomfort?

Many people suffer from back pain, and it can be contributed to by all of the below factors:



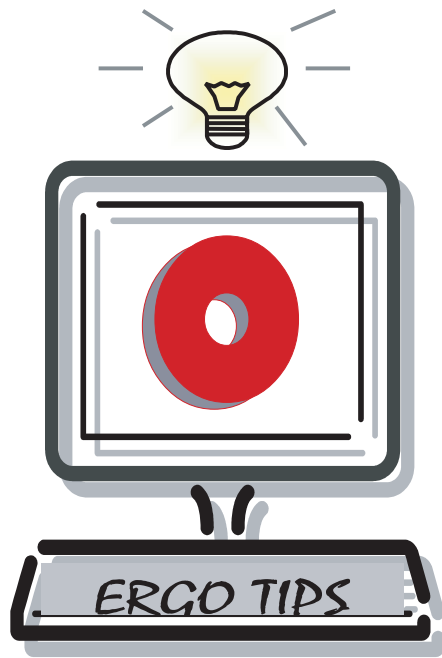
- Lack of support from your chair
- Sitting slumped
- Over reaching for the keyboard or mouse
- Feet not touching the ground
- Improper fit of the chair, or the improper type of chair for computer use
- Prolonged sitting, without a break

ARM & WRIST PAIN: What can cause discomfort?

Wrist and arm pain frequently occur together, as they result from similar factors such as the ones listed below:



- Keyboard is positioned too high, and/or too far away
- Mouse is positioned too high and/or too far away
- The keyboard is at a positive tilt
- Long fingernails result in awkward wrist posture.
- An "alternative" keyboard with an improper fit is being used.
- The use of improper keying technique – i.e. excessive movement of the wrists from side to side.
- Excessive force used to key
- Awkward posture used while resting over the keys i.e. holding one finger up in the air, or sticking the thumb out to the side.



ORGANIZE YOUR COMPUTER SPACE TO MINIMIZE POOR POSTURE!

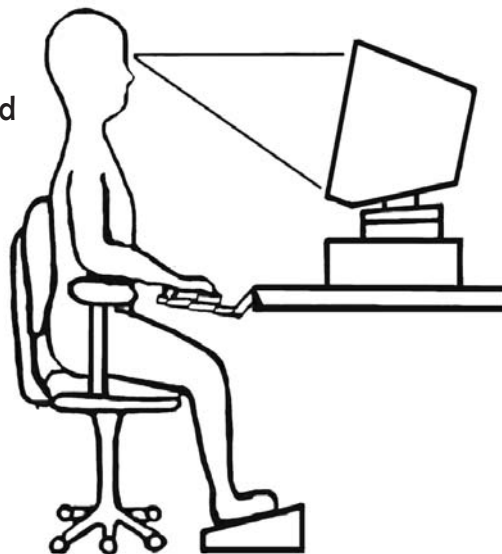
✓ **HANDS & WRISTS**
Relaxed & straight without
bending up, down or sideways

✓ **HEAD & NECK**
Upright, relaxed & balanced
between shoulders.

✓ **EYES**
At least an arm's length
from the monitor screen.

✓ **LOWER BACK**
Supported by chair with forward
curve or lumbar support.

✓ **KNEES**
Approximately at hip height
- or slightly higher or lower
depending upon personal
comfort and preference.



✓ **MONITOR**
Directly in front of you,
centered and free of glare.
Top of screen slightly
below eye level.

✓ **KEYBOARD**
Low enough for arms to
hang naturally at sides
with elbows close to body.

✓ **FEET & LEGS**
Feet rested flat on floor or footrest
with legs uncrossed. Legs should have
freedom of movement beneath desk.

✓ **DOCUMENT
HOLDER**
Close to monitor screen
and at same height.

✓ **PROJECT RESOURCES**
Within easy reach without
twisting or leaning forward.

ERGO-Tips: Solutions

ERGO-TIPS:

Organize Your Computer Space to Minimize Poor Posture.

Posture: Changing how you sit will effect your entire body

- Sit with a neutral spine
- Hips at 90 degrees
- Chair should support your back in an upright, “relaxed arch” position; lumbar support should fill in the curve at your low back. A good chair should have adjustable height, arms, seat back tilt, and lumbar support
- A rolled towel or lumbar cushion between the small of your back and the chair will help provide support
- Tilt of seat is a preference; make sure to sit all the way back. Be careful, too much recline can strain the neck and the wrists. Depending upon the tilt of your seat, you may need to adjust your keyboard to maintain a relaxed position keeping your wrists straight
- Seat of chair should end a couple of finger widths from the back of your knees
- Sit all the way back in your chair with your feet touching the ground. If feet do not reach the ground, try a footrest or a book to position knees equal to or just below the level of the hips (knees should form 90 degree angle) to reduce pressure on your lower back
- Adjust armrest height to a position where shoulders and neck feel the most relaxed when the arms are resting on the armrests



Keyboard, Keyboard Tray, and Mouse:

- Keyboards and mice come in many shapes and sizes – don’t believe all the “ergonomic keyboard/mouse” hype!!!
- Keyboard and mouse should be kept in a position where elbows form a 100-110 degree angle very close to your lap
- The mouse should fit the hand well and not have buttons that are awkwardly placed
- Elbows should be relaxed at your sides, not extended forward
- Keyboard tray should be large enough for the mouse and positioned where the wrists can be slightly below the elbows when keying; it should adjust easily
- Wrists should be straight; avoid having them up toward the ceiling
- Sometimes it is necessary to negatively tilt (front of keyboard, space bar end, higher than the back) the keyboard in order to keep the wrists straight
- When keying, use as light a touch as possible



Wrist Rests:

- Should be made of medium softness material
- A plastic base is useful to keep the wrist rest in place
- Make sure the rest does not put the keyboard into a positive tilt (front of keyboard, space bar end, lower than the back)
- Use it as a landing pad
- Rest gently and glide over the rest while keying; make sure material is easy to glide over, rough material can irritate the skin
- Avoid parking wrists on the wrist rest. This can lead to injury, as it overworks the tiny tendons and muscles in the wrist and hand when you move only from the wrist

Computer Table or Desk:

- Should be at a height that correctly positions the keyboard and the mouse. Depending on your height, this varies from 23-28 inches
- If using a table without an adjustable keyboard tray, make sure it is deep enough to have the monitor centered and the keyboard and mouse very close in to your lap
- When installing a keyboard tray on the table, make sure there is enough clearance under the table to install the tray
- L shaped tables are very helpful when doing a lot of writing or phone work
-

Monitors:

- Place monitor directly in front of you, 18-30 inches away (depending on your vision), your neck should be straight when looking at the screen
- Maintain a slightly downward gaze to view the screen; 10-20 degrees below eye level
- Avoid light sources that shine into the screen and create a glare