

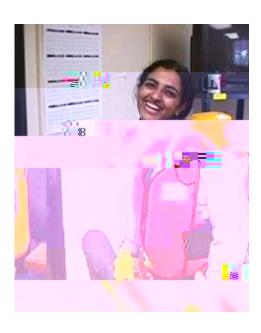




# **Table of Contents**

•••••	4
Musculoskeletal	5
Setting up Your	8
Keyboard and	9
Monitor and	10
Environment and Work	10
Proper Reach	11
•••••	
Stretches and	14
Ergonomics at	17
Athletics	18
Stress	
••••••	20
	21





### Musculoskeletal disorders

MSD's occur due to repeated trauma, repetitive stress on particular areas of the body, and occupational overexertion. They can affect the hands, fingers, back, neck, wrists, legs, shoulders as well as soft tissue. Developing gradually over time, the warning signs of MSD's include pain, stiffness, tingling, numbness, difficulty moving, muscle loss, paralysis, or lack of strength.

Your ability of an employee to fulfill responsibilities at work is compromised when You have an MSD. 34% of all lost workdays are due to these injuries, costing \$15-\$20 billion dollars in workers' compensation in a year. The average recovery time from an MSD injury is 28 days and workers with severe injuries face permanent disability that may prevent them from returning to their jobs as well as handling everyday tasks.

The best way to prevent from becoming victim to these injuries and illnesses is to learn how to recognize signs of MSD's before they become debilitating and to know the easy steps you can take to prevent them. Using ergonomics to modify your workplace can greatly enhance your ability to prevent MSD's and stress related illnesses.

# Types of Musculoskeletal disorders

<u>Carpal Tunnel Syndrome (CTS)</u>: With CTS, the median ne0 G[)]TJETQ0.00000912 0 612 792 reW\*nBT/F2 15.48 Tf1 00F2(C)

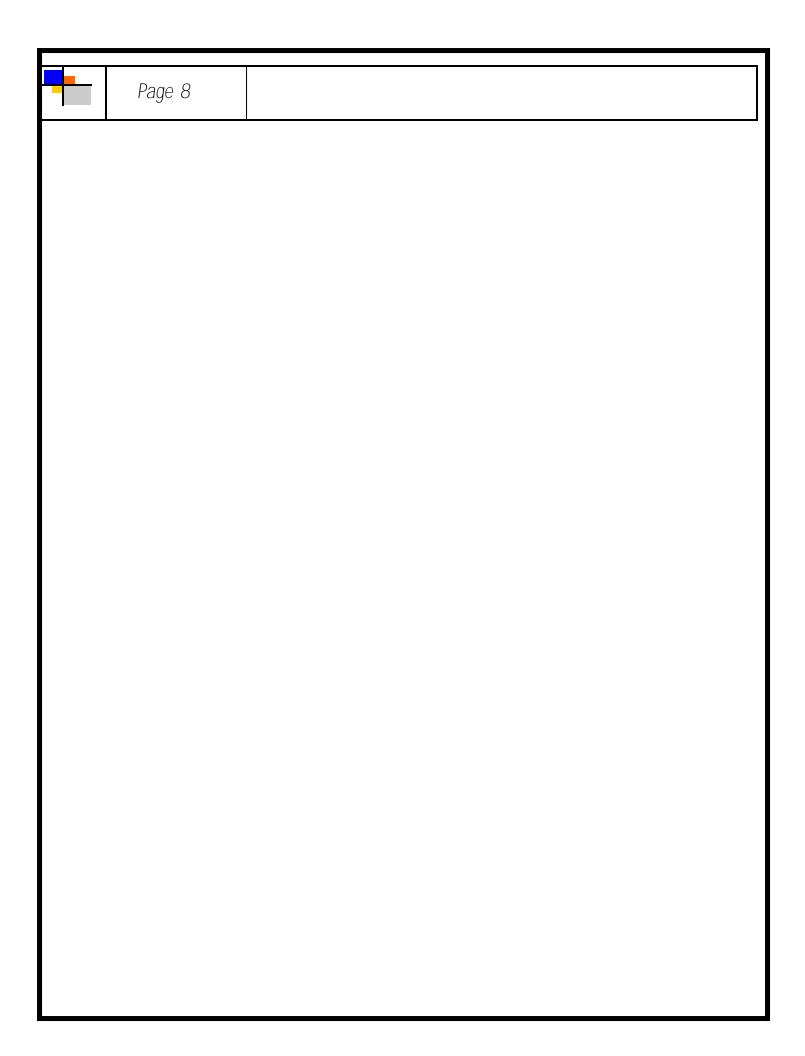
# P

### Musculoskeletal disorders

Sciatica: When you sit a lot or if you injure your back, you may experience pain due to pressure on the sciatic nerve. This may feel like a burning or tingling sensation down the leg, weakness, numbness, or difficulty moving the leg or foot, constant pain in one side of the buttocks, or a shooting pain that makes it difficult to stand up.

Low back pain: This can result from many things including improper lifting or sitting posture, excessive vibration, or other back strain. Smoking can also

Ergonomics Outreach	Page 7



#### **Workstation**

### Monitor and document:

The display screen should be placed so it is directly in front of you and so that the top of the screen is at eye level. The preferred viewing distance is 18 inches. If you have a large monitor, you should adjust the size of the document you are reading/writing so you don't have to move your head constantly.



Adjust monitor by placing it on a stand and tilting it forward or backward.



#### **Environment**:

Lighting should be adequate, but should not cause glare on the computer screen and should not be directed into your field of view. Adjustable lighting allows the operator to alter the contrast as needed, and a matte finish on the wall reflects light adequately preventing glare.



Cleaning the monitor frequently to remove dust particles can help to reduce glare and glare filters can be placed on the screen to help as well.



# **Body Mechanics**

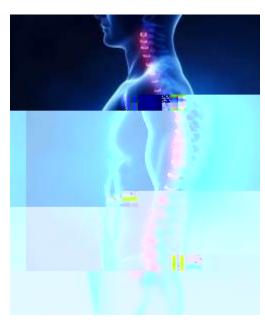
# **Body Mechanics:**

The body position you use to perform

# **Daily Routine**

The following sections deal with factors of daily life that can be modified and improved to keep your energy flowing, your back with three beautiful curves and your shoulders toned and relaxed. Go through these exercises whenever you are feeling tired or achy during the day.

#### **Posture**



#### Posture:

It is important to use different postures throughout the day to cut down on stress to particular areas. Postural exercises can also help promote proper alignment in the body, you can shift you posture standing and sitting just by leaning.

# Standing:

When standing for a long period of time, place one foot on a stool to reduce stress on your lower back.

### Sitting:

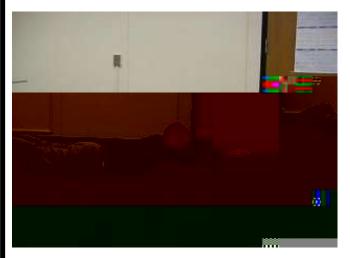
Keep your head and neck upright, your wrists straight, and your forearms parallel to the floor. Support your lower back with a cushion or rolled towel, and keep your feet on the floor or support them with a footrest.

Shift you posture by leaning back or forward in your chair, and take breaks to stretch and walk often. You should not spend more than twenty minutes in the same position without shifting.



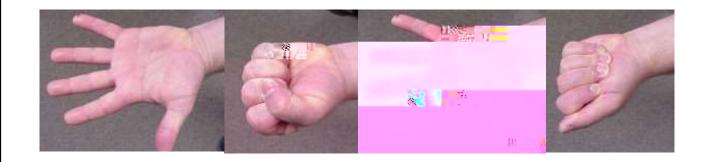


Page 15 L Environmental Health and Safety



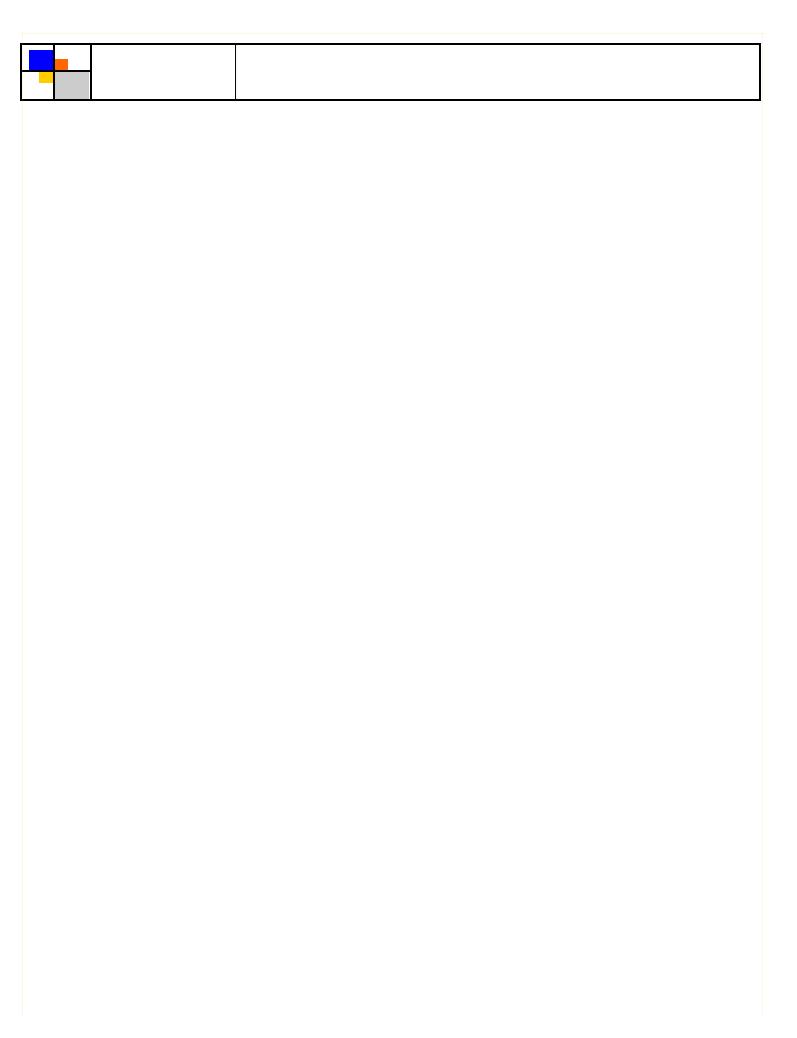
Lay on your stomach and then lift your arms and legs as shown. Hold for 15-30 seconds and repeat 3-5 times. This exercise strengthens your lower back muscles, which are very important for maintaining good posture.

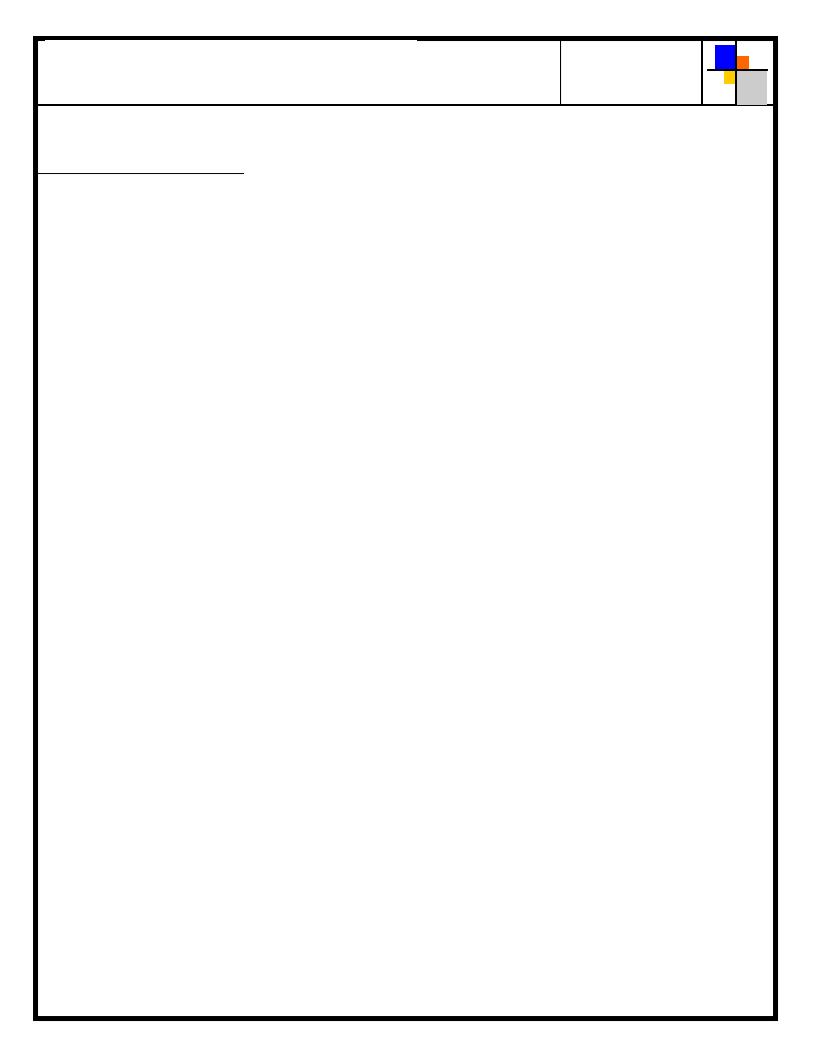
Open your hand wide as shown, then make a fist with your thumbs across your fingers and your fingers tucked under and squeeze. Now, open your hand wide again, then make another fist with your thumb













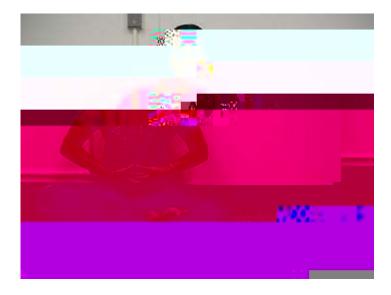
# **Stress Relief**

# Reducing psychological stress:

As well as taking care of your body, it is important to maintain aware- ness about how your mind is feeling. Working constantly without let- ting the brain take a rest can allow stress to accumulate. Stress can contribute to many illnesses, it is important to give yourself time to transition from work to home.

Practicing 5-10 minutes of meditation before you go to work, at lunch or before you return home, you can allow your mind and body to reintegrate and transition more smoothly to the next task.

Regular meditation also improves your health by benefiting the cardio-vascular system, tight musculature, upset stomach, and by boosting the immune system. It is also beneficial for fatigue, insomnia, living with pain or anxiety, and when dealing with chronic illness.





### Resources

# BU Environmental Health & Safety:

Established in 1974, Environmental Health and safety aims to provide guidance needed to promote a safe campus environment for all faculty, staff, students and visitors. If you would like additional information, you can contact Stephen Endres at 777-7012, or visit our website at: www.ehs.binghamton.edu.

# Employee Assistance Program (EAP):

EAP offers assessment and referral counseling for faculty and staff of the campus community. Recognizing that employees face stress and pressure that affect their ability to work, EAP assists employees with low or no-cost services that can help them with family or work related problems and emotional, physical, or drug related problems. This program is available to all New York state employees, retirees and their families.

If you would like to know more about EAP, contact them at 777-6655.



# Binghamton University Environmental Health & Safety

### **Ergonomic Work Station Checklist**

Before you call, have you modified your working conditions to avoid the following? Excessive repetitive motions? Glare? Awkward postures of the wrists, shoulders, back and hips? Straining to reach something? Are you getting sufficient breaks and using them to stretch, exercise? Are you lifting properly? \_Sitting and standing properly? \_Are you stretching and exercising on a regular basis? Are you avoiding hunched positions and keeping your back straight? \_Are you using the stress relief techniques described in this brochure? (please refer to this brochure while going through this checklist and make extra copies

as needed)