



MOUNT SINAI
SCHOOL OF
MEDICINE

MOUNT SINAI – IRVING J. SELIKOFF CENTER FOR OCCUPATIONAL & ENVIRONMENTAL MEDICINE

Program to Prevent and Treat Work-related Musculoskeletal Disorders

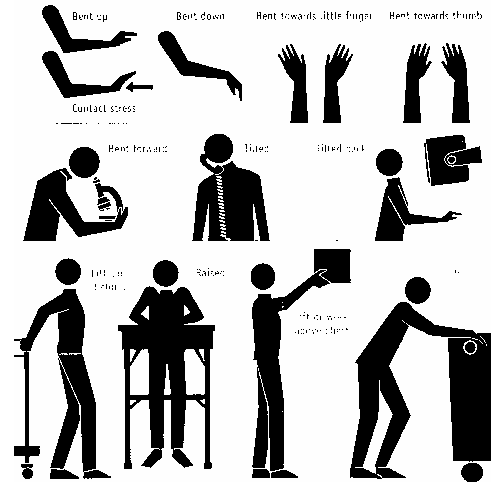
Promoting Healthy Work Through Occupational Ergonomics

Work is tough on your body

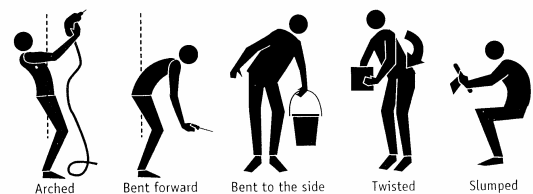
Overuse on the job can damage your muscles, tendons, nerves and blood vessels.

Musculoskeletal disorders (MSDs) may result. Work-related MSDs include elbow and forearm tendonitis, nerve compression in the elbow or wrist, and low back pain. Work can lead to health problems when you:

- Repeat the same motions over and over
- Make strong, forceful exertions or motions in muscles and tendons
- Work in stressful, constrained, uncomfortable postures (also called non-neutral postures)
- Hold your muscles and joints in one position for long periods
- Encounter vibration from tools or vehicles
- Lean against sharp or hard surfaces that compress tendons, blood vessels and nerves
- Cannot take adequate rest breaks
- Experience occupational stress



Stressful and unsafe postures



No matter what the job is, you can make work healthier and more comfortable.

Take recovery pauses:

To reduce local tissue damage and stimulate circulation, take frequent, brief recovery pauses. If work keeps you in one position for long periods (for example, standing at a counter) leave your workspace and walk for 5 minutes as often as you can, preferably every half-hour. You should also take minipauses throughout the day to relax, stretch and get blood flowing again. For example, if you sit all day at work, a minipause for you is to slowly stand up and then slowly sit down. If you stand all day at work, a minipause for you is to slowly sit down and then slowly stand up. This is especially important for the shoulders, so make sure you rest and relax them every five minutes or so.



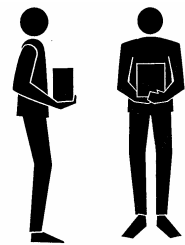
Work in comfortable power postures:

Work is safest when all your joints are in relaxed, comfortable postures. In these positions your joints and muscles have the least strain and produce the most power. You work in power postures when your:

- ◆ neck is straight, not bent back, forward or to the side
- ◆ shoulders are relaxed, not raised, forward or to the side for long periods of time
- ◆ wrists are in line with the forearms, not bent up or down or to the side
- ◆ trunk is straight, not bent, arched or twisted

Choose protective work practices:

- ◆ When sitting
 - Your back should be comfortably supported by a backrest
 - Your feet should be supported on the ground or on a footrest
 - You should not have to lean forward or raise your arms to work
- ◆ Sitting or standing
 - Keep your work low enough so you do not lift your shoulders to raise your hands to the work surface
 - Keep your work high enough so you do not have to lean forward or reach down
 - Do not lean on edges of your work surface. Leaning will compress tendons, blood vessels and nerves
 - Pad any surface you cannot avoid leaning on
- ◆ When lifting, carrying, lowering, pushing or pulling objects
 - Face the object straight on. Don't twist or bend to lift
 - Think of what you're lifting and where it's going before you lift
 - Keep what you lift as close to your body as possible
 - If the object is too heavy, bulky or unstable for you to lift alone, get help or use mechanical lifting assists
 - Don't carry things long distances. Use hand trucks.
 - When lifting and transferring patients, use two people AND transfer equipment
 - Pushing is easier than pulling
- ◆ Using tools:
 - Use your whole hand (called a power grip) rather than your fingers (called a pinch grip)
 - Choose tools that let you keep your wrists straight
 - Don't use tools that put concentrated pressure on your palm or fingers
 - If tools are heavy, use both hands, use adjustable holding fixtures or suspend tools overhead
 - Keep blades sharp. Dull blades slow you down, require more force and repetitive motion, and increase the chance of accidentally cutting yourself
 - Select tools with reduced vibration, better handle design and less weight
 - Use handle coatings to reduce vibration and plastic sleeves on the handle to increase friction
 - Check and maintain tools regularly
- ◆ While working, limit the effects of repeated stress and strain by changing postures and taking numerous recovery pauses throughout the day.



Early medical evaluation and treatment are important

An occupational medicine physician will help you identify the causes of your symptoms and start you on the road to treatment and prevention. Prompt screening will rule out other diseases that might be causing these symptoms such as soreness, stiffness, pain and numbness. See a doctor if you have symptoms that last more than a few days or interfere with work or home activities.

Change the work conditions that lead to symptoms and MSDs

Proper workspace and work equipment design help you work powerful, stress reducing postures. These postures make work more comfortable and safer. Non-neutral postures are the least effective way to work. They use more energy and place more stress and strain on your musculoskeletal system.

Your work environment makes a difference too. Factors like unrealistic time demands, conflicts, lack of control and insufficient rest and recovery make you tense and increase the impact of the physical demands of work.

Hudson Valley Clinical Center

Located at St. John's Riverside Hospital
967 North Broadway, Level S1
Yonkers, NY 10701
914-964-4737
914-693-6493 Fax

Manhattan Clinical Center

at Mount Sinai Medical Center
1200 Fifth Avenue, Suite 1B
New York, NY 10029
212- 241-9059
212-241-5658 Fax

Queens Clinical Center

at Mount Sinai Hospital of Queens
25-35 30th Road
Astoria, NY 11102
718-278-2736
718-932-5358 Fax