

## Ergonomics at Work

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Sitting in front of the computer all day, standing for prolonged periods in front of a class, and lifting with poor posture and technique can lead to a series of medical conditions including muscle strain, inflammation of the joints and tendons, excessive disc compression, blood circulation disorder, nerve impaction, eye strain and deconditioning. Symptoms from these conditions may include headaches, pain, muscle spasms, joint soreness, numbness in the back, hands, wrist, and eye irritation. Utilizing proper posture and body mechanics at work can help to minimize the risk of developing symptoms or conditions such as these. Practice these following tips to ensure your physical health at work.

**Sitting in front of the computer:** Try to position your body so that you are sitting in your chair with a 90 degree angle at your knees and hips. It may be necessary to raise your chair to meet the height of the work surface. If this results in your legs not being supported by the floor, try using a foot rest. Always ensure your back is being supported by your chair back to minimize spinal loading. Your monitor should be positioned so that you are viewing the top portion of the screen when your neck is in neutral alignment. Distance away from you should be 18-24" (one arms length), farther causes a head forward posture and too close results in eye strain. Maintain shoulders in neutral alignment with arms close to sides of body, a 90 degree angle at the elbows and straight wrists when keying and mousing. The mouse should be positioned on the same surface as the keyboard, directly to the right or left.

**Desk organization:** Ensure all items you use on a regular basis at your desk such as you note pad, pen, calculator, phone are within your primary work zone, within one arms reach away. This will prevent unnecessary reaching and bending. Items used less frequently should be stored further away. It is always a good idea to stand to

reach items which are not easily accessible or stored in above desk storage units.

**Standing to work:** Always wear comfortable supportive shoes with less than a two-inch heel when standing to work. Dynamic standing produces less stress on the spine so shift weight between legs or take a few steps back and forth to reduce stress build up in the musculature of the spine. Placing one foot on a slightly raised surface such as a low step stool will help to redistribute weight.

**Low level work:** If working at a low level, i.e. with younger children sitting at low desks, avoid bending and stooping. Try squatting or to reduce stress placed on the knee joint, go down to one or two knees. Sitting on a chair to meet them at the same level is an option or have them come to your desk if possible.

**Upper extremity work:** Avoid excessive reaching. Attempt to use step stool or ladders to access higher shelves. Avoid lifting heavy articles above shoulder level. The muscles are in a weak position when reaching above shoulder level and this can lead to an injury.

**Lifting:** Avoid lifting and transferring loads while sitting. When standing to lift, feet should be shoulder width apart, one in front of the other, lift with two hands, and keep the load as close to stomach as possible. Keep back upright, bend at the hips, and use the thigh muscles to raise the load. Do not twist when coming up from

a lift. And remember if the lift seems too awkward or heavy, ask for help.

**Carrying:** A heavy purse or backpack over both shoulders can be used to evenly distribute weight. Using a cart or a wheeled bag to carrying supplies and materials should be considered.

Prevention of aches, pains and fatigue at work can be minimized by keeping in mind proper body mechanics and posture. Proper positioning and alternating your body movements through the day through smart planning, stretching and exercising can help to increase your comfort and work day endurance.

NSTU's Early Intervention Occupational Therapists, part of the Member Assistance Program are here to help teachers who are working or on paid sick leave and are experiencing an illness or injury. For more information email nurse@nstu.ca or check out EIP on the NSTU website at nstu.ca.

