



This Month's Topic: Work-Related Musculoskeletal Disorders (WMSD) Prevention

You may be familiar with injuries such as carpal tunnel syndrome, tendonitis, trigger finger or back strain in your workplace. These injuries are due to small, repeated traumas to the musculoskeletal system (muscles, ligaments, tendons, joints, bones) and the nervous system when the job does not match the worker's capabilities. These injuries, also called Work-Related Musculoskeletal Disorders (WMSDs), account for some of the largest costs in injury claims and lost work time.

What are work-related musculoskeletal disorders (WMSDs)?

Work-related musculoskeletal disorders (WMSDs) are a group of painful disorders of muscles, tendons, and nerves. WMSDs include sprains, strains, inflammation, degeneration, tears, pinched nerves or blood vessels, bone splintering and stress fractures. Work activities which are frequent and repetitive, or activities with awkward postures cause these disorders which may be painful during work or at rest.

Almost all work requires the use of the arms and hands. Therefore, most WMSD affect the hands, wrists, elbows, neck, and shoulders. Work using the legs can lead to WMSD of the legs, hips, ankles, and feet. Repetitive activities can also cause back problems. WMSDs are very difficult to define within traditional disease classifications.

What are the symptoms of WMSDs?

Pain is the most common symptom associated with WMSDs. In some cases there may be joint stiffness, muscle tightness, redness and swelling of the affected area. Some workers may also experience sensations of "pins and needles," numbness, skin colour changes, and decreased sweating of the hands.

The table below outlines occupational risk factors and symptoms of the most common disorders of the upper body associated with WMSDs.

Identified disorders, occupational risk factors and symptoms		
Disorders	Occupational Risk Factors	Symptoms
Tendonitis/tenosynovitis	Repetitive wrist motions Repetitive shoulder motions Sustained hyper extension of arms Prolonged load on shoulders	Pain, weakness, swelling, burning sensation or dull ache over affected area
Epicondylitis (elbow tendonitis)	Repeated or forceful rotation of the forearm and bending of the wrist at the same time	Same symptoms as tendonitis
Carpal tunnel syndrome	Repetitive wrist motions	Pain, numbness, tingling, burning sensations, wasting of muscles at base of thumb, dry palm
DeQuervain's disease	Repetitive hand twisting and forceful gripping	Pain at the base of thumb
Thoracic outlet syndrome	Prolonged shoulder flexion Extending arms above shoulder height Carrying loads on the shoulder	Pain, numbness, swelling of the hands
Tension neck syndrome	Prolonged restricted posture	Pain

Alisto Engineering Safety Statistics 2014

Motor Vehicle Accidents/ Total Miles Driven	Lost Work Days/ Total Work Days	Occupational Injuries and Illnesses
01/01/14–10/31/14	01/01/14–10/31/14	01/01/14–10/31/14
1/280,883 miles	0* day/ 210 days	2**

* From BC Environmental Insurance

**Incident Report

Newsletter Highlight

Q&A with Shawna Williams

Human Resources Administrator
Alisto Engineering Group, Inc.

(On her recent tendonitis injury)

Q: What has Alisto done to help treat and prevent further injury?

SW: "Alisto first performed an ergonomic assessment of my desk and surrounding areas, to determine what accommodations needed to be made to alleviate some of the pain and stress. They provided me with a chair more suitable for my body frame and a vertical mouse for my wrist."

Q: What have you done to help treat and prevent further injury?

SW: "Since being diagnosed with tendonitis, we have made some crucial changes to my work space and routine. In addition to the equipment adjustments, I have started to stretch regularly, wear braces on my wrists, take frequent breaks and some days avoid working on the computer altogether.

I am starting physical therapy soon as well as recommended by my doctor."

Q: What would you say has been the most effective remedy for tendonitis pain?

SW: "Rest is the best way to treat tendonitis pain, and when paired with an ergonomically correct workstation, it will not only heal quicker, but will be less likely to reoccur. Overall just being aware and becoming educated on my condition has helped lead me down the road to recovery."

How are WMSDs treated?

- Restriction of movement
- Application of heat or cold
- Exercise and/or physical therapy
- Medication and surgery

How can we prevent WMSDs?

Hazards are best eliminated at the source. The prime source of hazard in WMSDs is the repetitiveness of work. Other components of work such as the applied force, fixed body positions, and the pace of work requiring repetition of the same movements over and over again, are also contributing factors to WMSDs.

A Postural Guide to Working at Your Computer Workstation

Before starting work, make sure to check your position with your computer. However, frequent posture changes (dynamic posture) is effective in reducing stress on the body and redistributing pressure caused by long lengths of working in a stationary or static position.



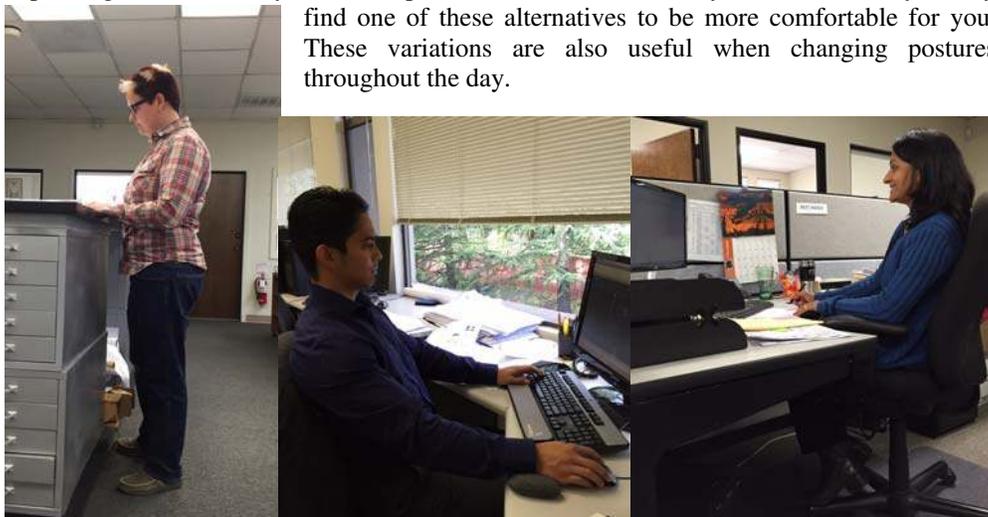
Upright sitting posture. The user's torso and neck are approximately vertical and in-line, the thighs are approximately horizontal, and the lower legs are vertical.



Standing posture. The user's legs, torso, neck, and head are approximately in-line and vertical. The user may also elevate one foot on a rest while in this posture.

Posture Variations

There is no single "correct" posture. There are many variations of neutral posture, and depending on what tasks you have to perform and the furniture in your workstation, you may find one of these alternatives to be more comfortable for you. These variations are also useful when changing postures throughout the day.



WMSD Statistics:

- U.S. workers experienced more than 647,000 lost workdays due to WMSDs
- WMSDs cost employers \$15 to \$20 billion in workers compensation costs each year
- Indirect costs from WMSDs may run as high as \$45 to \$60 billion

WMSDs account for:

- 43% of all lost-time claims
- 43% of all lost-time claim costs
- 46% of all lost-time days

Major Workplace Ergonomic Risk Factors:

- High Task Repetition
- Forceful Exertions
- Repetitive/Sustained Awkward Postures

Individual Ergonomic Risk Factors:

- Poor Work Practices
- Poor Fitness
- Poor Health Habits

References

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