



## Work Related Disorders

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Received date: 02 April, 2020; Accepted date: 17 April, 2020; Published Date: 24 April, 2020

### Editor's Note

Work-related musculoskeletal disorders (WMSDs) are a group of painful disorders of muscles, tendons, and nerves. Carpal tunnel syndrome, tendonitis, thoracic outlet syndrome, and tension neck syndrome are few examples.

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. Some back problems also result from repetitive activities.

Few disorders which have been recognized are as follows:

- Repetitive motion injuries.
- Soft tissue disorders.
- Overuse syndrome.
- Cumulative trauma disorders.
- Regional musculoskeletal disorders.
- Occupational cervicobrachial disorders.
- Repetitive strain injuries.

### Risk Factors Associated With WMSDs?

WMSDs arise from arm and hand movements such as bending, straightening, gripping, holding, twisting, clenching and reaching. These common movements are not particularly harmful in the ordinary activities of daily life. What makes them hazardous in work situations is the continual repetition, often in a forceful manner, and most of all, the speed of the movements and the lack of time for recovery between them. WMSDs are associated with work patterns that include:

- Fixed or constrained body positions.
- Continual repetition of movements.
- Force concentrated on small parts of the body, such as the hand or wrist.
- A pace of work that does not allow sufficient recovery between movements.

WMSDs commonly occur as a result of a combination and interaction among them.

Heat, cold and vibration also contribute to the development of WMSD.

WMSDs that developed gradually as a result of repeated trauma include three types of injuries Muscle injury, Tendon injury and Nerve injury.

### Symptoms Associated With 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. Other symptoms may also include sensations of "pins and needles," numbness, skin colour changes, and decreased sweating of the hands.

WMSDs may progress in stages from mild to severe. Diagnosis of WMSDs is recognized by performing the laboratory and electronic tests such as Electroneuromyography (ENMG) which encompasses two areas of electromyography (EMG) and nerve conduction velocity (NCV) determines the nerve or muscle damage. Magnetic resonance imaging (MRI), an alternative to x-rays, provides images of tendons, ligaments, and muscles and improves the quality of the diagnostic information.

### WMSDs Treatment

Apart from restriction of movement, Application of heat or cold and Exercise, the treatment of WMSDs is also the medication and surgery.

Therefore, workers can be protected from WMSDs by focusing on avoiding repetitive patterns of work through job design which may include mechanization, job rotation, job enlargement and enrichment or teamwork. And where the elimination of the repetitive patterns of work is not possible or practical, prevention strategies involving workplace layout, tool and equipment design, and work practices should be considered.

The journal of Ergonomics Research not only confined to the above mentioned topic but also proved its Excellency in publishing the articles related to each and every tiny fragment of the broad spectrum of topics related to the Journal's scope.

Also the journal is on its way for the establishment. Upon the request of the enormous readers, we have focused completely on the conference editorials for the year 2019 and wherever successful in presenting the valuable and commendable report on conferences related to the journal.

This year the journal office has decided to work completely on the research write-ups and is in a process of accepting the manuscripts from the scientific community towards the Journal's editorial office.

The journal have got a hike in the number of readers and also obtained an excellent and an eye catching number of page views from around the globe.