

## Information Sheet 100

### Musculoskeletal Disorders

A predominant occupational health risk in the electricity industry is related to pain and disorders caused by the work a person does, whether this occurs in neck shoulders and arms (Upper Limbs), back, or hips knees and ankles and feet (Lower Limbs).

The term Musculoskeletal Disorder (MSD) covers any injury, damage or disorder of the joints or other tissues in the upper/lower limbs or the back. This Information sheet provides a brief overview on MSDs.

**Musculoskeletal Disorders or MSDs are injuries and disorders that affect the human body's movement or musculoskeletal system** (i.e. muscles, tendons, ligaments, nerves, discs, blood vessels, etc.).

Common MSDs include:

- Carpal Tunnel Syndrome
- Tendonitis
- Muscle / Tendon strain
- Ligament Sprain
- Tension Neck Syndrome
- Thoracic Outlet Compression
- Rotator Cuff Tendonitis
- Epicondylitis
- Radial Tunnel Syndrome
- Digital Neuritis
- Trigger Finger / Thumb
- DeQuervain's Syndrome
- Mechanical Back Syndrome
- Degenerative Disc Disease
- Ruptured / Herniated Disc,
- and many more.

Key messages about MSDs are:

- you can do things to prevent or minimise MSDs
- the prevention measures are cost effective
- you cannot prevent all MSDs, so early reporting of symptoms, proper treatment and suitable rehabilitation is essential.

Risk factors causing MSDs can be found in virtually every workplace from commerce to agriculture, health services to construction. An estimated 11.6 million working days a year are lost to work-related MSDs.

Back pain

Most people have back pain at some time. Usually the pain is not caused by anything serious and it settles within a matter of days or weeks.

Medical evidence from the Royal College of General Practitioners and the Faculty of Occupational Medicine focuses on three key messages for sufferers to deal with back pain:-

- Stay active

- Try simple pain relief
- If you need it seek advice

### Upper limb disorders (ULDs)

The term Upper Limb Disorders (ULDs) includes the condition known as "repetitive strain injury" (RSI), these two terms are not interchangeable because RSI does not cover all upper limb disorders. ULD is used as an umbrella term for a range of disorders of the hand, wrist, arm, shoulder and neck. It covers those conditions, with specific medical diagnoses (e.g. frozen shoulder, carpal tunnel syndrome), and other conditions (often called RSI) where there is pain without specific symptoms. Symptoms may include pain, swelling and difficulty moving.

ULD cases caused by work can also mean production losses and compensation claims for employers.

### Lower Limb Disorders (LLDs)

Lower Limb Disorder (LLD) is used as an umbrella term for a range of disorders of the hips, legs, knees, ankles and feet. It covers those conditions with specific medical diagnoses (e.g. Osteoarthritis of the knee and hip), and other conditions where there is pain without specific symptoms. Symptoms may include pain, swelling and difficulty moving (HSE, 2017).

## The Cause of Musculoskeletal Disorders – Exposure to Risk Factors

When a worker is exposed to MSD risk factors, they begin to fatigue. When fatigue outruns their body's recovery system, they develop a musculoskeletal imbalance. Over time, as fatigue continues to outrun recovery and the musculoskeletal imbalance persists, a musculoskeletal disorder develops.

These risk factors can be broken up into two categories: work-related [\(ergonomic\) risk factors](#) and individual-related risk factors.

So the root cause of MSDs is exposure to MSD risk factors – both work-related risk factors and individual-related risk factors.

### Work-related Risk Factors

Workplace design plays a crucial role in the development of an MSD. When a worker is asked to do work that is outside his/her body's capabilities and limitations, he/she is being asked to put their musculoskeletal system at risk. In these situations, an objective evaluation of the workstation design tells us the worker's recovery system will not be able to keep up with the fatigue that will be caused by performing the job. The evaluation will tell us that ergonomic risk factors are present, the worker is at risk of developing a musculoskeletal imbalance and a musculoskeletal disorder is an imminent reality.

Exposure to these workplace risk factors puts workers at a higher level of MSD risk. It's common sense: high task repetition, forceful exertions and repetitive/sustained awkward postures fatigue the worker's body beyond their ability to recover, leading to a musculoskeletal imbalance and eventually an MSD (Middlesworth, 2017).

## Bibliography

Middlesworth, M (2017). 'The Definition and Causes of Musculoskeletal Disorders (MSDs)' cited in January 2017 - <http://ergo-plus.com/definition-of-musculoskeletal-disorder-msd/>

HSE (2017). 'Musculoskeletal Disorders' cited in January 2017 - <http://www.hse.gov.uk/msd/msds.htm>