



A Tata Steel Enterprise

Workplace ergonomics

Workplace ergonomics is all about the kind of work you do, the environment you work in, and the tools you use to do the job. It looks at the potential health risks associated with performing your job and at Montana Building Systems Ltd. this covers everyone across all job roles.

Workplace ergonomics looks at fitting workplace conditions and job demands to the capabilities of the working population. Effective and successful "fits" assure high productivity and the avoidance of illness and injury risks. At TMontana the goal of Workplace ergonomics is to set up your work space so that it fits you and the job you are doing. Inadequate workplace ergonomics can lead to musculoskeletal disorders.

Musculoskeletal disorders are one of the most common occupational illnesses and affect the support and movement systems of the body, i.e. the bones, joints, muscles, tendons, and ligaments. They include such conditions as back pain, arthritis, upper limb disorders and injuries to any of these structures.

Much can be done in the workplace to prevent them, and adjustments to the working environment can enable those with existing musculoskeletal disorders to work comfortably.

Common examples of ergonomic risk factors are found in jobs requiring repetitive, forceful, or prolonged exertions of the hands; frequent or heavy lifting, pushing, pulling, or carrying of heavy objects; and prolonged awkward postures. Vibration and cold may add risk to these work conditions.

Jobs or working conditions presenting multiple risk factors will have a higher probability of causing a musculoskeletal problem. The level of risk depends on the intensity, frequency, and duration of the exposure to these conditions. Environmental work conditions that affect risk include intensity, frequency and duration of activities.

In the workplace there are many hazards and at Montana we ensure that we always manage the risks accordingly. Always think: Is there a better way?

**And remember...
You're not made of steel –
Mind your body!**

Zero harm

Zero harm

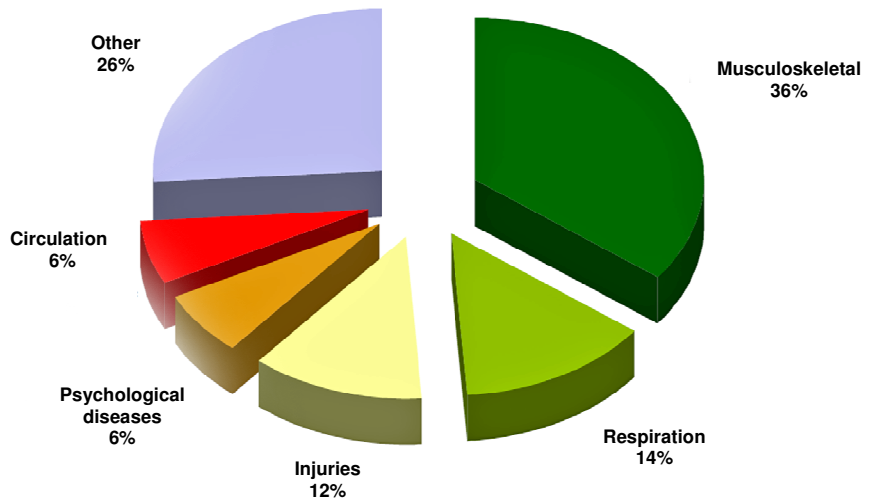
What are the facts?

Workplace ergonomics are often the most dominant health issue in most industries.

One of the major goals for ergonomics in the work place is to prevent illness and accidents. Workplace ergonomics covers both site and office employees and is all about ensuring that your workplace is designed to suit you. Everyone is different in terms of their body size and reach, age, ability, health, disabilities and susceptibility, so it is essential that your working environment is fit for you.

As can be seen from the pie chart the main health problems arising from poor workplace ergonomics are musculoskeletal disorders (MSDs) which often result from inadequate workplace ergonomics.

Inadequate workplace ergonomics can create a number of health issues. Problems can result from sedentary work, prolonged static postures, and working in awkward positions. Working with frequent and repetitive hand or wrist movements, working at unsuitable temperatures, or with drafts, inadequate lighting, noise, restricted access and obstructions are also typical injury causes.



What kind of injuries can happen?

Certain jobs might involve a risk of MSDs.

- Computer work – typing, data input. Rapid movement of fingers on keyboard, very repetitive, awkward postures, shoulder / neck problems.
- Production line work – manipulating objects, using tools. Manual handling, static postures, supporting tools, extremes of joint movement.
- Driving moving machinery – cranes, earth movers, fork lift trucks. Awkward postures because of poor visibility, repetitive control movements, application of force.
- Operating plant – control cabins. Awkward postures because of poor visibility, repetitive control movements, application of force, looking up to screens.

- Manual handling – repetitive lifting, heavy loads, awkward postures.
- Maintenance – awkward postures, tools. Lying down, kneeling, constrained postures, application of force, extremes of joint movement.

MSDs can affect muscles all parts of the body. Most work-related MSDs develop over time and can also result from fractures sustained in an accident.

MSDs can affect the muscles, tendons, ligaments, nerves and other soft tissues and joints of the neck, upper limbs (shoulders, arms, hands, wrists, fingers), back or lower limbs (knees, hips, feet).

Symptoms can include pain, swelling, tingling and numbness, and may result in difficulty moving or long-term disability if no action is taken.

These include:

- inflammation of the tendons (tendonitis and tenosynovitis)
- pain and functional impairment of the muscles (myalgia)
- nerve compression, or ‘entrapment syndromes’
- degenerative disorders occurring in the spine

MSDs also cover conditions with specific medical diagnoses (e.g. frozen shoulder, carpal tunnel syndrome), and others where there is pain without specific symptoms.

Zero harm

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How to avoid injury

In an office

- Try to place your work in front of you and sit tall while you work
- Try not to put too much stress on one area of your body, such as your lower back or arms
- Change your position often
- Turn with your whole body instead of twisting to face your work
- Take breaks to stretch or get out of your chair every 20 to 40 minutes, if you can, switch to another task
- Reduce the length of time that a task is carried out
- Improve the working environment
- Tackle the underlying effects of work or conditions
- Reduce repetition
- Find the right working position



On site

- Reduce repetition
- Find the right working position
- Reduce the amount of force required
- Reduce the length of time that a task is carried out
- Improve the working environment.
- Tackle the underlying effects of work or conditions
- Try not to repeat a task too frequently
- Take care when bending, twisting and reaching
- Take care when lifting weights
- Limit your exposure to uncomfortable or static working positions
- Do not work for too long without breaks
- Be aware of cold or hot environmental conditions



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