



An Introduction to Ergonomics

Ergonomics can be defined as “fitting the workplace to the worker”.

Musculoskeletal disorders (MSDs), also known as strains and sprains, are painful disorders of the muscles, tendons, and nerves that develop over time from tasks that repeatedly cause stress and injury to tissues.

Symptoms of MSDs:

Pain, joint stiffness, muscle tightness, redness, swelling of the affected area, numbness, “pins and needles” sensations, skin colour changes



Four Main Ergonomic Factors that Contribute to Injury:

- **Force** – is generated by muscles to lift, lower, push, pull or hold objects. When the amount of force required for a job or task is more than the muscles can handle, there is a risk of injury.
- **Posture** – is the position of the different parts of the body relative to one another. The more extreme, awkward or unnatural the posture, the greater the risk of injury to the muscles, ligaments, tendons and nerves.
- **Repetition** – is the number of times an action or body motion is performed over a given time period. Jobs that require repetitive motion increase the stress to the muscles and tendons because of fatigue and wear-and-tear.
- **Duration** – is the length of time an activity or movement is performed, a posture is held or a worker is exposed to other ergonomic hazards such as force or repetition. Even though a movement or activity may be fairly comfortable, the duration of the task over a long period can lead to injury.

Just because one person can do a particular job without the risk of injury doesn't mean everyone can!

Report symptoms early so that hazards can be identified and controls can be put in place.