

Office Ergonomics

Office Ergonomics - Personal or Individual Risk Factors

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Do personal factors contribute to musculoskeletal problems?

There are certain factors inherent in work tasks that can increase our risk for the onset of musculoskeletal disorders (MSD), such as:

- fixed and constrained postures that are frequently awkward, uncomfortable and maintained for too long a time,
- repetitious and forceful hand movements, and
- a high pace of work.

These factors are discussed in greater detail in the OSH Answers document [Major Work-Related Factors](#).

Other personal and lifestyle factors also contribute to our risk for MSDs. These include our state of health or fitness, our lifestyle, our work habits, and our posture . These factors are the focus of this document.

State of health

Although the evidence is not conclusive, there is general agreement among researchers that individuals with medical conditions are more likely to have musculoskeletal disorders.

Examples of these conditions include hyper-mobile joints, arthritis, diabetes, or thyroid disease. Furthermore, individuals who smoke may be at greater risk for [hand-arm vibration syndrome](#) due to reduced blood flow.

Mental health and how individuals respond to stressors is also an important element. Behavioural responses to psychosocial risk factors may increase an individual's risk of developing MSDs. For more information on, please see our OSH Answers document [Musculoskeletal Disorders – Psychosocial Factors](#).

Fitness

Poor physical fitness and obesity make us more susceptible to musculoskeletal disorders. For example, poor fitness, or lack of physical activity, is a prime cause of weariness and fatigue which are also commonly recognized to be factors that can contribute to the onset of WMSDs. So, although there is no direct relation between poor fitness and muscular discomfort and eventual injury, we can regard a lack of fitness as a strong risk factor for injury, and any feeling of muscle fatigue as a warning signal.

Do individual work habits affect your health?

The body positions held while typing and individual typing styles are so significant in the cause of [work-related Musculoskeletal Disorders \(WMSDs\)](#) that their impact cannot be overemphasized. Some experts consider that they outweigh any other factors.

How do poor sitting habits undermine your health?

Slouching while sitting with the back slumped against the backrest of the chair compresses the spine and can lead to low back pain. It also puts the head in an imbalanced position, contributing to neck and shoulder problems. Additionally, a slouchy, sitting position encourages the worker to rest the wrists on the edge of the desk in the dorsiflex position (i.e., hands bent upwards or backwards at the wrist). **This is one of the most important MUST NOT DOs in WMSD prevention.**

How do typing styles contribute to causing musculoskeletal injuries?

There are many poor typing techniques, even among trained and highly skilled typists. **Pounding** the keys harder than necessary can cause tingling in the fingertips and pain in the finger joints. **Pressing** the keys rather than lightly touching them strains the tendons of the fingers, hands and forearms. **Pecking** at the keys instead of touching them lightly usually requires one to lift the remaining fingers and thumb. Over time, these repetitive movements can lead to forearm [tendonitis](#) and [de Quervain's](#) disease.

Any typing posture with arms unnecessarily away from the body puts a lot of strain on shoulders and neck makes typing more strenuous (forceful) than need to be. Examples are typing with arms extended forwards or to the sides or with shrugged shoulders.

In addition to the repetitive nature of typing, the **force** used is another risk factor contributing to the occurrence of WMSDs: the greater the **effort** the higher the risk for WMSDs.

Fact sheet last revised: 2021-12-17

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