Major Work-Related Risk Factors Fact Sheets



WHAT ARE FACTORS THAT CAN LEAD TO INJURIES IN AN OFFICE JOB?

Basic office activities involve sitting in front of a computer and operating it by means of typing or moving a mouse. Still, no matter how harmless these activities may seem, they do set the stage for injuries that can develop over time. While these activities are not particularly hazardous for a worker who does them only occasionally, the situation becomes more critical when done long periods every working day.

It is very important to know that musculoskeletal injuries (MSIs), and specifically, repetitive motion injuries (RMIs) rarely originate from one event or a particular factor. As a rule they develop over time from a variety of factors.

Work-related factors that present the greatest risk for MSIs involve:

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

How does a fixed body posture affect your body?

Because the human body was designed to move, it cannot tolerate immobility for long. Merely sitting at a desk for long times can be unhealthy and damaging to the musculoskeletal system. Holding the upper body still in an upright position requires a lot of muscular effort and contributes to what is called a static load.

Both holding one’s head at the optimum distance from the screen and document holder and maintaining one’s arms in the proper typing position increase the static load on the whole upper body, and on the neck and shoulders in particular. The reduced blood supply that follows not only accelerates fatigue, but also leaves the musculoskeletal system susceptible to RMIs.

Where does poor work posture originate?

Poor posture can be a result of:

- Non-adjustable or otherwise unsuitable workstations;
- The layout of the workstation is inadequate or is not suitable for its user;

- Lack of knowledge and experience on how to set up an adjustable workstation properly according to the worker’s needs (considering both body build and job tasks);
- Poor working habits that remain uncorrected;
- Unsuitable job design that requires a worker to sit uninterrupted for longer than an hour at a time; and
- Lack of proper education and training, resulting in a lack of awareness.

How can repetitious and monotonous movements affect your body?

Holding the upper body in one position allows the upper limbs to engage in the fine hand movements used in typing and operating a mouse (categorized as dynamic load). These are common examples of repetitious and monotonous movements. Repeated hundreds or thousand of times, hour after hour, day after day, year after year, these movements strain and gradually cause “wear and tear” on the muscles and tendons in the forearms, wrists and fingers. People who do repetitive work with their bodies in fixed and static positions are even more susceptible to getting RMIs.

Discomfort, numbness and tingling are the danger signs. If these signals are ignored, pain, chronic problems and long-term disability are likely to follow.

How a high pace of work affects your body?

Like repetitive and unvarying movements, a high work pace is quite a common reality in most offices. Regardless, whether it is arises from periodic overload or from uneven distribution of work, a regular high speed of work contributes to the development of MSIs very strongly.

The pace of work determines how much time working muscles have for rest and recovery between movements. The faster the pace, the shorter and less productive the recovery times become. This combination increases the risk for RMIs.

A person may be able to set his or her work pace and adapt to the stresses that result. However, more harmful to one’s health are external factors that increase the work pace and which are beyond the person’s control, such as:

- having tight or frequently changing deadlines;
- knowing your performance is being monitored by some electronic system; or
- being overloaded with work.

The result is that the worker is denied any control over the timing and the speed of work, creating the feeling of “always being in a hurry.” This haste and resulting stress cause the body muscles to tense up which, in turns, significantly accelerates the risk for developing RMIs.

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