

# Office Ergonomics Part III\*

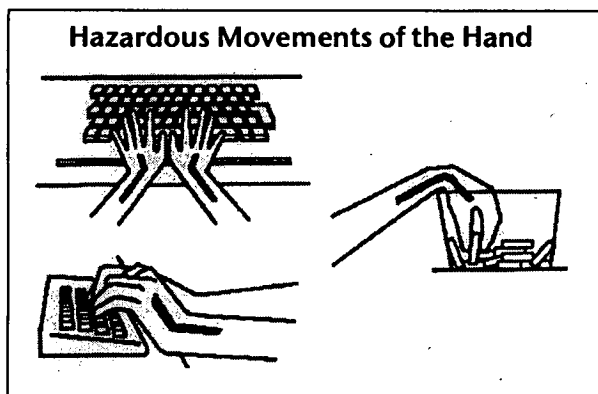
In the last of our series on office ergonomics, we will look at **Repetitive Motion Injuries (RMI)**, a major cause of lost work in many government departments. What are RMIs? How do they occur? How can they be prevented? These are some of the questions we will be answering in this article.

## What are Repetitive Motion Injuries?

Repetitive motion injuries (RMI), also known as repetitive strain injuries or cumulative strain disorders, are a group of painful disorders of muscles, tendons, and nerves. Carpal tunnel syndrome, tendonitis, and tension neck syndrome are examples of RMI. As almost all work requires the use of arms and hands, most repetitive motion injuries affect the hands, wrists, elbows, neck and shoulders.

## What are the risk factors for RMI?

Work-related repetitive motion injuries arise from ordinary arm and hand movements such as bending, straightening, gripping, holding, twisting, clenching and reaching. While these common movements are not particularly harmful in the ordinary activities of daily life, what makes them hazardous in work situations is the continual repetition, the speed of movements and the lack of recovery between them.



There are two aspects of body position or posture that contribute to injuries in jobs involving repetitive tasks, like working at a computer, for example. The first relates to the position of the part of the body that performs the actual task. For example, tasks that require repetitive movements to the extreme ranges of the joint in the wrist, elbow or shoulder contribute to the occurrence of a painful conditions in these areas (see illustration).

The second aspect that contributes to RMI is a fixed position of the neck and shoulders. Poor layout of the workstation can also lead to the hazardous body movements identified above (for

more information, see *SIGNET News*, February 13, 1995, "How to be Ergonomically Comfortable at Your Workstation", pp. 3-5).

## How do RMI occur? What are the symptoms?

Repetitive motion injuries do not happen as a result of a single accident or injury; they develop gradually as a result of repeated trauma. RMI include injuries to the muscles, tendons and nerves.

Pain is the most common symptom associated with repetitive motion injuries. In some cases, there may be joint stiffness, muscle tightness, redness and swelling of the affected area. Diagnosis of repetitive motion injuries is confirmed by performing laboratory and electronic tests that determine nerve or muscle damage. Treatment of these injuries involves several approaches including restriction of movement, application of heat or cold, exercise and medication and surgery.

The following table (see next page) outlines occupational risk factors and symptoms of the most common disorders of the upper body associated with RMI.

## How can RMI be prevented?

The Canadian Centre for Occupational Health and Safety (CCOHS) says that workplace design is central to RMI prevention. To help avoid RMI, be sure your workstation is set up with the principles of ergonomics in mind (see also *SIGNET News* of February 13, 1995).