Workplace Health & Safety

Ergonomics
January 2003

How to Use Wrist Rests

Wrist rests for computer keyboards and mice have become commonplace "ergonomic" accessories. Soft to the touch and comfortable for the hand and wrist, they seem to provide the natural answer for avoiding hand, forearm and shoulder pain.

How useful are they really? Like most tools, they have the potential to help or harm you, depending on whether you use them as intended. If you are going to use a wrist rest, make sure you know how to use it correctly.

A wrist rest is typically a strip of cushioning material that sits in front of a keyboard, mouse, or other input device. It can be made from padded plastic, foam, gel or other similar materials. Wrist rests come in various shapes and degrees of softness.

The use of wrist rests need not be limited to computers and keyboards. Wrist rests can also be used to provide cushioning and prevent injury during small parts assembly and laboratory activities, for example.

The purpose of the wrist rest is to keep the wrist straight during keyboard use (not bent up or down), provide padding that a table or desk can't, and help relieve some of the tension in the arms that comes from keyboarding.

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Use proper keyboard technique

Persons trained to use a keyboard are taught to keep their wrists straight and have their hands float over the keys. However, many of us never received this training and, not knowing any better, drop our wrists to the desk surface. This causes our hands to bend upwards, hyperextending the wrists and increasing the risk of injury to the nerves and tendons of our hands and forearms due to awkward postures (see Figure 1).

Figure 1   Don't type with your hand flexed

This position also means that our wrists sit on the desk's hard surface or a sharp edge, putting unwanted pressure on the heels of our hands and the nerves, tendons and blood vessels passing through the wrist. Some keyboard users place their keyboard at the edge of the desk, forcing them to float their hands over the keys, since there is no desk on which to rest the hands.

Use the wrist rest only between periods of typing

The wrists should only rest on the wrist rest between periods of typing, not all the time. Some users hold their wrists to the rest in a fixed position, rarely or never moving them. With their wrists fixed in this position, these users then depend on extended fingers and sideways wrist motion to reach the keys (see Figure 2). These repetitive, unnatural motions can lead to injury. The whole arm, starting with the shoulder, should be used to reach the keys far from the home row. Avoid having the wrists and fingers reaching from one end of the keyboard to the other.

Constantly leaning or pressing the wrists into the wrist rest can also put excessive pressure on the nerves, tendons and blood vessels passing through the wrist. The leaning or pressing can increase the risk of injury — one of the problems that using the wrist rest was supposed to correct in the first place.

Figure 2   Don't type with your hand bent sideways

Choosing a wrist rest

When choosing a wrist rest, look for the following features:

- it should be free of sharp edges

- it should provide a soft, comfortable support that takes the shape of the wrist and heel of the hand

- its height should be approximately level with the keyboard's front edge

- it should run the entire width of the keyboard or mousing area.

If a wrist rest helps, use it.

Are wrist rests for everyone?

No. In the end their use is a matter of personal preference. If a wrist rest helps, use it, as long as you understand what it's supposed to do and use it as intended.

This article appeared in the January 2003 edition of the Occupational Health and Safety Magazine

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