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Prevention of Mouse-Related Pain

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With the advent of mouse-intensive software has come an increase in reports of cumulative trauma disorders. Find out what causes these types of injuries and disorders to occur and what symptoms to look out for. Follow these guidelines for mouse use and injury prevention.

Some specific recommendations:

- Pain encircling the wrist
- Pain on the ulnar side of the hand (near the pinkie finger) that radiates along the forearm up to the elbow
- Pain in the trapezius muscles (at the top of the shoulders) that can radiate up to the neck
- Pain between the shoulder blades
- Elbow pain, such as tennis elbow or epicondylitis
- Pain in the palm
- Loss of finger control, as in a writer's cramp
- Numbness
- A burning sensation
- Swelling

While most mouse packages include some instructions on use, perhaps more detailed observations would prevent these injuries from occurring.

Users Should be Encouraged to:

- Use long keyboard trays or trays with pull-out/adjustable mouse extensions that allow the mouse to be on the same operating plane as the keyboard.
- Make sure the operating plane of the mouse and keyboard is low enough to prevent shoulder and elbow over-extension. A user is in a correct position when the upper arms are straight down to the sides, elbows are bent at about 90 degrees or greater, and wrists are neutral.
- Keep the mouse free of lint and other debris to allow easy, smooth operation and prevent the need to grasp and lift the mouse.

- Choose a mouse that fits their hand size so the fingers can relax over the mouse and allow the mouse to support the entire weight of the hand.
- Relax and avoid holding the mouse in a death grip.
- Avoid keeping a finger cocked in mid-air and ready to click. It should lay gently over the mouse button.
- Let the hand relax on their lap between tasks.
- Avoid resting on the wrist while moving the mouse with the fingers. This exhausts the small muscles in the hand and wrist. Float the whole arm along with your mouse movement, utilizing the arm's large muscle groups, which are much more capable of absorbing the trauma of repeated use. Elbow support is a much better alternative than wrist support.
- Mouse with the non-dominant hand. Right-handed users should mouse with the left, even though it takes some patience to get used to.
- For intensive mouse users, learn alternative keyboard commands for common mouse actions. For example, using CTRL C may be pressed instead of using the mouse to select EDIT > COPY.
- Take frequent, short breaks throughout the day.

Following these simple guidelines for mouse use and injury prevention will go a long way toward improving the quality of users' life at work. If, after including these guidelines in their work practices, users still experience pain or discomfort, they should seek help. A repetitive injury caught early is one