A repetitive strain injury (RSI) is an injury or disorder of the joints, nerves, muscles, ligaments or tendons. RSIs are the largest job-related injury and illness problem in the U.S. today. OSHA (Occupational Safety and Health Administration) has guidelines designed to minimize or prevent workplace injuries with respect to computer usage. Computer-related RSIs include tendonitis and carpal tunnel syndrome.

Tendonitis is inflammation of a tendon due to repeated motion or stress on that tendon. Carpal tunnel syndrome (CTS) is inflammation of the nerve that connects the forearm to the palm of the hand. Repeated and/or forceful bending of the wrist can cause tendonitis or CTS. Common symptoms linked to tendonitis of the wrist include extreme pain that extends from the forearm to the hand, along with a tingling feeling in the fingers. Some symptoms of CTS include numbness and tingling in the thumb and first two fingers, and a burning pain when the nerve is compressed.

Long-term computer work can lead to tendonitis or CTS. If untreated, these disorders can lead to permanent damage to your body. You can take many precautions to prevent these types of injuries. Take frequent breaks to exercise your hands. To prevent injury due to typing, place a wrist rest between the keyboard and the edge of your desk. To prevent injury while using a mouse, place the mouse at least six inches from the edge of the desk. In this position, your wrist is flat on the desk. Finally, minimize the number of times you switch between the mouse and the keyboard, and avoid using the heel of your hand as a pivot point while typing or using the mouse.

Another type of health-related condition due to computer use is computer vision syndrome (CVS). You may have CVS if you have sore, tired, burning, itching, or dry eyes; headache or sore neck; blurred or double vision; increased sensitivity to light; and difficulty focusing. CVS is not believed to have serious or long-term consequences.

People who spend entire days using a computer sometimes complain of lower back pain and muscle fatigue. The back pain sometimes is caused from poor posture. One way to help prevent these injuries is to be sure the workplace is designed ergonomically. Ergonomics is an applied science devoted to including comfort, efficiency, and safety in the design of the workplace. Studies have shown that using the correct configuration and type of chair, keyboard, display device, and work surface helps users work comfortably and efficiently and helps protect their health. For the computer area, experts recommend a workspace of at least two feet by four feet.