Puget Sound Human Factors & Ergonomics Society

Technically Cool Computing

A pilot project of Puget Sound Human Factors and Ergonomics Society

Technically Cool Computing is a pilot project sponsored by the Puget Sound Human Factors and Ergonomics Society (PSHFES) to develop a computer ergonomics learning activity module for students. The module will teach students how to evaluate their computer workstations and work habits in order to reduce their risk for musculoskeletal injuries. Our goal is to develop a user-friendly learning module that can be easily implemented by teachers in the classroom environment. Students will gain an understanding of the basic concepts of computer ergonomics in order to be able to establish lifelong habits of safe computing.

As the use of computers has increased significantly over the last twenty years, so has the rate of repetitive use musculoskeletal injuries such as carpal tunnel syndrome, neck strain and other conditions of the neck/spine, wrists, hands and shoulders. What are seldom considered, however, are the increased use of computers by children, the long-term effects of awkward postures on children, and the lack of size-appropriate computer workstation equipment available to school-aged youth.

It has been reported that approximately 23% of elementary school children complain of back pain, a statistic that increases to about 33% among secondary school children. Fifty six percent of teenage males and 30% of females in the US were identified as having degeneration of the spine by X-ray imaging.

In 1999, the average American child was reported to be spending between one and three hours per day using a computer. Add to that the increased use of mobile devices such as cell phones for text messaging and gaming devices, and the exposure to risk increases exponentially. With so many children using electronic devices at an early age, concerns regarding the long term effects of this chronic exposure and the potential for the early onset of debilitating injuries have begun to surface. Providing education for students to achieve comfort, efficiency and safety in their computer habits early on will assure a healthy workforce for our future.

For additional information or to be involved in the trial phase of this project, please contact Susan Murphey, PSHFES Community Projects Chair, at communityprojects@pshfes.org