



Ergonomics

Real People Real Problems Real Solutions

Misleading Myths on Ergonomics

Myth: The science is insufficient to tie musculoskeletal disorders to work.

Fact: There is a wealth of validated scientific research linking musculoskeletal disorders (MSDs) and work. The National Institute for Occupational Safety and Health (NIOSH) evaluated 600 studies in 1997. Twenty-seven peer reviewers confirmed NIOSH's finding linking physical stress on the job to MSDs. Following its 1998 review of the scientific literature, the National Academy of Sciences (NAS) concluded that 1) MSDs are directly related to work; 2) the higher the physical stress on the job, the greater the rate of MSDs; 3) most people face their greatest exposure to physical stress at work; and 4) interventions that reduce physical stress on the job reduce the risk of injury. OSHA has included 1,400 studies in the ergonomics rulemaking record.

Myth: We should wait to act—until the second NAS study is complete in 2001 or until we know exactly how many repetitions produce injuries.

Fact: The second NAS study is unlikely to alter the firm conclusions from the first that musculoskeletal disorders are work-related and that ergonomics programs can reduce the incidence of these injuries. As the NAS concluded, "...there is little to shake our confidence in the thrust of our conclusions, which draw on converging results from many disciplines, using many methods." In fact, the second study is essentially another analysis of much of the same body of evidence that NIOSH and NAS reviewed previously.

We don't know how many cigarettes someone must smoke before developing cancer. Individuals vary, but we do know that smoking significantly increases cancer risk. The same is true with heavy lifting, forceful exertions, repetitive motions and awkward postures. No one can say exactly how many repetitions, how many awkward stretches or how many pounds lifted will result in injury. What we do know for sure is that reducing physical stresses at work can reduce the risk of developing musculoskeletal disorders. We need to act on that knowledge now.

Myth: Scientific and medical professionals disagree about the need for an ergonomics rule.

Fact: Medical, scientific and professional organizations have strongly encouraged OSHA to act without further delay in promulgating a proposed ergonomics program rule. These organizations include the American College of Occupational and Environmental Medicine, the American Academy of Orthopaedic Surgeons, the American Association of Occupational Health Nurses,



the American Occupational Therapy Association, the American Nurses Association, the American Public Health Association, the American Society of Safety Engineers, the American Industrial Hygiene Association and the Human Factors and Ergonomics Society.

Myth: Work-related musculoskeletal disorders are decreasing; therefore, there is no need for an OSHA ergonomics standard.

Fact: All workplace injuries and illnesses are declining—that's great news. But work-related musculoskeletal disorders remain the most prevalent, most expensive and most preventable occupational injuries in the U.S. today. Repetitive motion injuries, as they are reported on the OSHA 200 Log, constitute a small portion of these injuries—just 4 percent. However, when these injuries are combined with back injuries that are due to repetitive motions or overexertion, all musculoskeletal disorders account for more than one-third of lost workday injuries and illnesses—600,000 injuries each year. An additional 1.2 million injuries are serious enough to cause workers to seek medical attention or light duty. Under the OSHA proposal, an average of 300,000 painful and potentially disabling injuries would be prevented each year.

Myth: There is no proof that ergonomics programs reduce injuries.

Fact: Hundreds of companies have proven that ergonomics programs reduce injuries, cut costs, and increase productivity and employee morale. The Government Accounting Office and others have studied ergonomics programs and found them effective. More than 90 case studies showed that implementing ergonomics programs resulted in average declines in MSD rates of 70 percent.

Myth: An OSHA ergonomics standard will be too costly for business.

Fact: Today, U.S. businesses are spending \$15 to \$20 billion each year in workers' compensation costs for work-related musculoskeletal disorders. Total costs may be as high as \$60 billion. OSHA's proposed standard would save \$22,500 for each MSD prevented for a total of \$9 billion each year. The average annual cost to fix a work station will be about \$150.

Myth: Employers will have to pay for injuries their workers get playing golf, moving furniture or knitting sweaters.

Fact: Not true. Employers will evaluate injuries to determine whether they are work-related or not. Only those injuries that are serious enough to require days away from work, medical treatment or assignment to light duty work will qualify. And injuries must pass two more tests: they must be directly related to an employee's job and specifically connected to major job activities. It is the employer who will continue to make the decision that an injury is job-related.

Myth: Employers will have to hire expensive consultants to comply with the standard.

Fact: OSHA will develop extensive materials to help employers comply. They will also be able to turn to the free OSHA consultation service in their states and may seek help from their insurance companies as well. The proposal includes a phase-in of up to 3 years to make it easier for small businesses to get the information they need and meet the requirements.