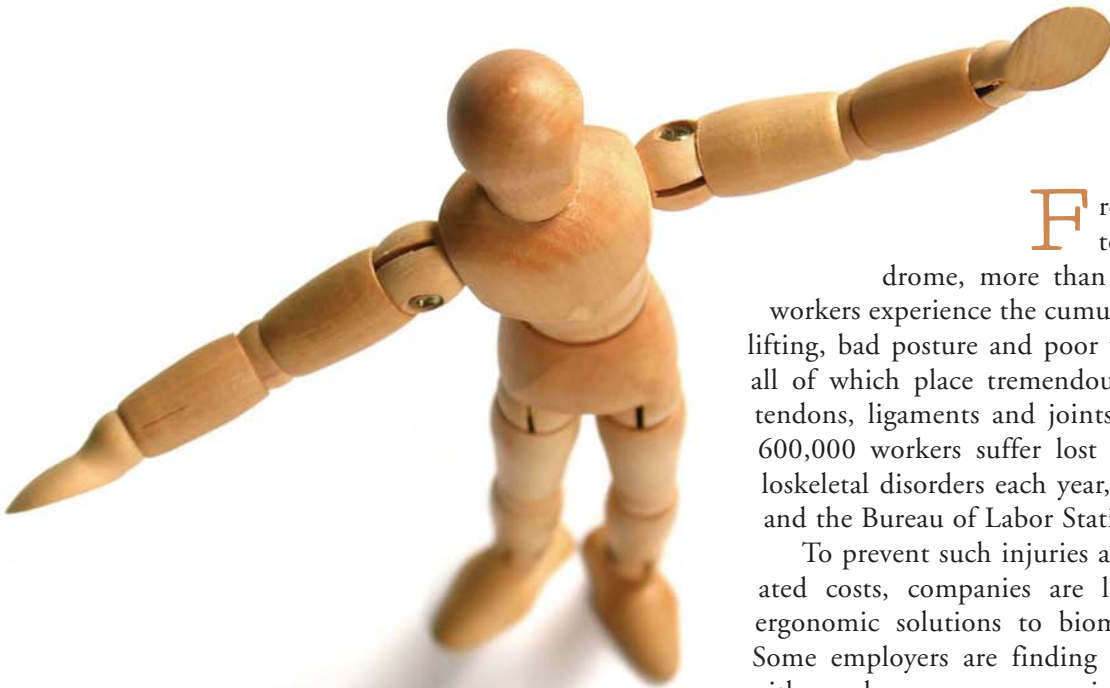


# Making ergonomics practical

By Markisan Naso, associate editor



**“They don’t realize they are hurting themselves. The spine is sending inflammation signals all throughout their hands, arms, necks and shoulders.”**

—Kurt Rever, Windham Group

From lower back pain to carpal tunnel syndrome, more than 1 million American workers experience the cumulative effects of heavy lifting, bad posture and poor workstation design – all of which place tremendous strain on muscles, tendons, ligaments and joints. In fact, more than 600,000 workers suffer lost workdays to musculoskeletal disorders each year, according to OSHA and the Bureau of Labor Statistics.

To prevent such injuries and reduce the associated costs, companies are looking for practical ergonomic solutions to biomechanical problems. Some employers are finding that working closely with employees on ergonomics issues can result in improved health and productivity.

Many businesses employ workers who have unknowingly exposed themselves to ergonomic hazards for years, according to Kurt Rever, a psychosocial ergonomist for Windham Group in Manchester, NH. Companies should work with employees to identify the improper work techniques used over long periods of time, and redesign those jobs to reduce fatigue and chance of injury, Rever said. Workers who assemble product parts at benches, for example, often tuck their necks between their shoulders for better wrist and finger movement, Rever said. “They don’t realize they are hurting themselves. The spine is sending inflammation signals all throughout their hands, arms, necks and shoulders,” he said.

## Posture and practice

Sometimes an ergonomic solution can mean teaching employees new body mechanic techniques that help them perform tasks safely and free of pain. These are often easy changes of posture that can provide relief and recovery to inflamed areas, according to Alex Charish, ergonomic expert and CEO for ERGOLifestyle.com in Los Angeles. Charish said she has worked with companies on solutions as simple as moving mats closer to workstations to reduce workers' reach as they perform tasks. The greater the reach, she explained, the farther the distance from the center of the body and the greater the muscle strain.

"If your arms are fully extended [to perform a task], that's lifting," Charish said.

Rever said he has had similar experiences. A client workshop revealed that fatigued employees were using bad postures to allow them to get through their eight-hour shifts. He helped the company customize ergonomic and workflow techniques, allowing employees to do their jobs and maintain neutral postures that prevented strain on muscles, tendons, ligaments and joints.

## Case in point

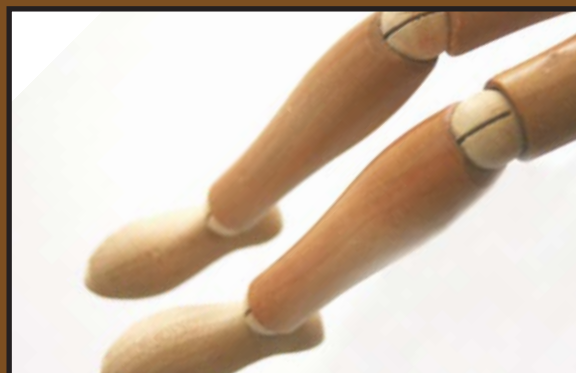
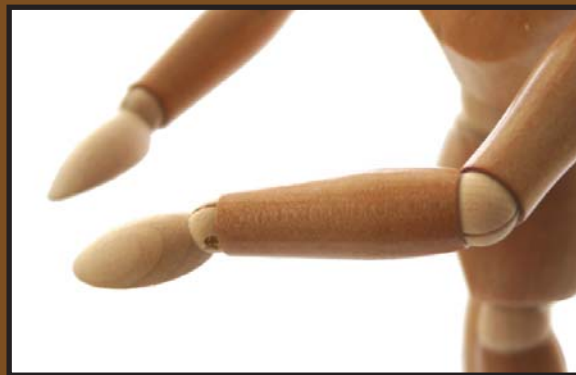
Many companies have had success implementing simple ergonomic techniques. Motorola found 40 percent of employees in the accounts payable department were reporting arm or wrist fatigue by the end of the workday, according to Leslie Peterson, manager of safety and industrial hygiene at the Schaumburg, IL-based company.

To reduce these injuries, a team at Motorola created several easy-to-implement solutions. These included mandatory ergonomics training, employee workstation evaluations, and adjustments and exercise development to relieve stiffness and stress.

"The exercise program was a huge success," Peterson said. She added that all employees went through basic training on adjusting their chairs and their workstations. "That had a huge impact," Peterson said.

The ergonomics improvements at Motorola resulted in a 70 percent decrease in employee stress. Further, 70 percent of employees said the program made them feel better physically. Motorola also saw a significant increase in productivity, a decrease in number of errors in the department and a 38 percent increase in quality.

A stretching and strengthening program also helped Hensel Phelps Construction Co., Irvine, CA, significantly



## Feature at a Glance

More companies are looking for practical ergonomic solutions to injuries caused by heavy lifting, bad posture, poor workstation designs and high force requirements that make workers exert a massive amount of physical effort to accomplish a task.

### Key points

- Workers unknowingly expose themselves to ergonomic hazards.
- Teaching employees simple new body mechanic techniques helps reduce injuries.
- Successful ergonomics programs are proactive.
- Relating ergonomic techniques to life beyond work sustains worker interest.

## OSHA standard vs. voluntary guidelines

More than five years ago, President Bush signed the resolution repealing the OSHA ergonomics standard. Since then, the agency has released a set of voluntary ergonomic guidelines for poultry processing, retail grocery stores and nursing homes. These guidelines were sharply criticized by labor organizations for not being enforced and not doing enough to protect workers. Although reports indicate continual drops in injury rates for musculoskeletal disorders, no studies link the voluntary guidelines to reductions in injuries.



reduce work-related musculoskeletal disorders. The company hired consultant Stephen Grennan to analyze job tasks performed at its Victorville, CA, construction site.

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– Alex Charish,  
*ERGOLifestyle.com*

Graham said Hensel Phelps has since instituted the program at half a dozen other construction sites in the state and has shared its success story with other companies in the industry.

### Bringing it home

One of the challenges of any ergonomics program is sustaining employee participation. Charish said companies with good ergonomics programs find ways to relate the techniques to life beyond work.

Based on his assessment, Grennan created individual injury-prevention programs for the Hensel Phelps employees. David Graham, director of safety and health for Hensel Phelps, said the ergonomics initiatives lessened pain and discomfort for employees and increased productivity and morale.

“The program also helped people reduce injuries at home,” Graham added.

After the ergonomics program was implemented at Victorville, the site logged 104,000 labor hours without a reported injury.

“It has to be practical to implement, simple to understand and should make a difference in peoples lives,” Charish said. She explained that although employees do not want back injuries or aching wrists, they are not motivated by reduced workers’ compensation claims.

“Their personal lives away from work are the driving force. That’s what motivates people,” Charish continued. “For some, it is a hobby or a sport. For others, it is spending time with their family.”

Make the ergonomics program relevant to employees; inspire them to want good posture and to lift properly, she advised.

Rever said companies that show workers how these techniques make sense in everyday life also help to demystify the science of ergonomics.

“That’s when we see more people become accountable for using it,” he said.

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### More on ergonomics at [www.nsc.org/plus](http://www.nsc.org/plus)

**Ergo agency:** Visit the OSHA Website to view ergonomics guidelines.

**Success stories:** Read about companies who have used ergonomics to reduce injuries and workers’ compensation costs.

