Ergonomics—The Science of Fitting the Job to the Worker

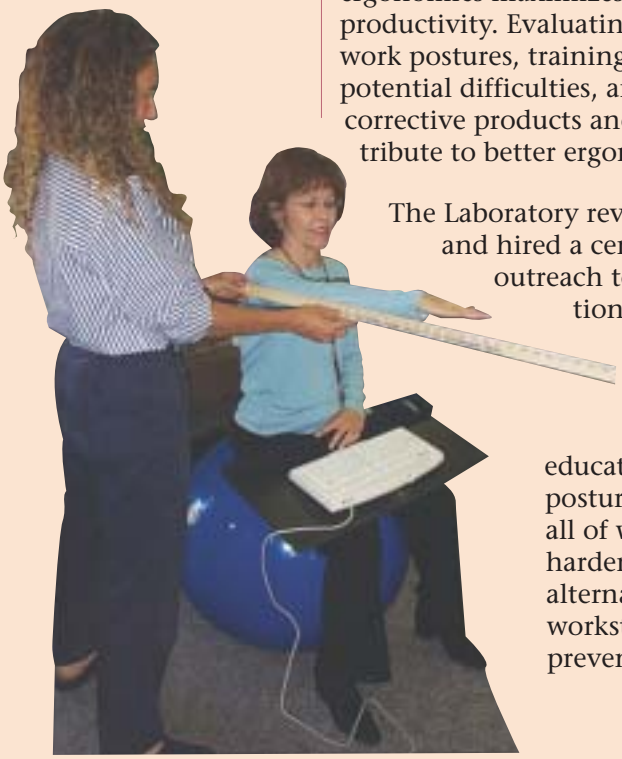
Fitting the job to the worker means minimizing worker fatigue and discomfort and enhancing worker safety, health, and productivity. Ergonomics topics range from work-related issues, such as well configured computer workstations and safe lifting practices, to leisure activities, such as healthy gardening, driving, and bicycling.

Ergonomics covers many aspects of a job, such as the following:

- physical factors such as stresses placed on joints, muscles, nerves, and tendons;
- environmental factors that may affect hearing and vision;
- engineering factors such as workstations and tools; and
- other factors such as temperature and vibration.

The Laboratory's ergonomics program benefits worker health and safety—good ergonomics maximizes worker safety and productivity. Evaluating workstations and work postures, training workers to detect potential difficulties, and intervening with corrective products and practices all contribute to better ergonomics.

From the work bench to the garden, the latest in ergonomic tools drew a crowd at a recent exposition. The expo also featured booths on ergonomic office furniture, a model computer workstation, and an occupational medicine information center. Above, participants visit with ergonomics program manager Graciela Perez.



The Laboratory revved up its ergonomics program in 2001 and hired a certified professional ergonomist to increase outreach to workers. Outreach includes presentations, expositions—at least four times a year—and onsite ergonomics analyses.

Now, Laboratory employees can get professional advice, workstation evaluations, education about equipment, and training in safe postures and equipment use in the workplace—all of which help people work smarter, not harder. For example, changing postures and alternating different tasks at a computer workstation can alleviate discomfort and prevent repetitive motion injuries.

Ergonomics teaches Laboratory workers how to use correct postures for lifting.

The ergonomics program is a vital part of health and safety practices for Laboratory employees. Repetitive motion, awkward postures, and/or forceful exertions, such as twists while lifting, are the culprits in most workplace injuries and illnesses. Fortunately, very few of these injuries now require more than first-aid treatment, primarily because of early detection, intervention, and employee training.

All employees are encouraged to report signs and symptoms of ergonomic problems immediately so that corrective action may be taken as quickly as possible. As an important step in the process, injuries and illness reported to the Laboratory's occupational medicine office are analyzed to reduce and, wherever possible, to eliminate risk factors in the workplace.

Employees can request an ergonomic analysis of their work environments by an ergonomics specialist. New building construction and the introduction of new technology at the Laboratory now incorporate ergonomics at the initial design stage. Also, workers have access to a board-certified professional ergonomist and trained ergonomics specialists.

At an ergonomics expo, Nancy Teague, right, and Mary Miller, are all ears as James Barber, left, explains how biofeedback can help reduce stress and improve overall health.

For assistance, employees can visit an interactive ergonomics website or go in person to the ergonomics demonstration room and resource center. The website has several ergonomics tools available for employees, including a self-assessment checklist to help determine if their workstation is properly designed for their particular work and tasks.

Work smarter, not harder is the proactive motto of the ergonomics program. The program helps prevent injury and illness and encourages worker health and safety.

In the ergonomics demonstration room and resource center, vendors and ergonomics experts provide training on various products and specific topics. Trained ergonomics specialists provide information on office equipment including chairs, computer input devices, keyboard trays, and document holders. Visitors to the center can test computer devices, chairs, and a variety of other products.