

Ergonomic Evaluations Yield Happier, Healthier, More Productive Employees At Low Cost

BY MIRIAM BASCH SCOTT

"Effective prevention and management of disability depends on ergonomics," according to Sara Taylor, principal of Structured Health Resources, Inc. (SHR), a Chicago-based disability prevention and management consulting firm.

Ergonomics is the study of the relationship among people, their equipment (environment), and the tasks they perform, resulting in effectively fitting the job to the worker, Ms. Taylor explained. An ergonomically incorrect work environment can lead to worker fatigue, lost productivity, physical discomfort, poor morale, and impairment or disability, she added.

The Occupational Safety and Health Administration's (OSHA) recently released ergonomic standards (see page 22) has generated debate about the cause of musculoskeletal disorders, the need for a government-mandated standard, and the cost to industry of compliance with such a standard. OSHA's ergonomic standard will require employers to have a comprehensive ergonomic response to address reported musculoskeletal disorders. This "reactionary" stance is not as effective as a proactive approach that addresses disability risks in order to prevent occurrences, Ms. Taylor said. Also, many people believe improved ergonomics entails expensive equipment purchases, but fixes often cost little and may be only a matter of adjusting equipment or adding inexpensive accessories, and educating employees about "healthier" work positions.

After receiving information on ergonomics, employees often are best qualified to identify the changes necessary to improve their work environments, Ms. Taylor said. "If employees can solve their own problems, they are more invested in their health and comfort, resulting in greater awareness and improved outcomes."

PREVENTIVE MEASURES

SHR's clients often are employers committed to injury prevention by addressing

ergonomics and providing employees with individualized training, whether or not an injury or illness has been reported. "Although each had a different impetus to sponsor a program, these employers wanted to ensure their employees had a more comfortable work environment, reduce disability, and avoid lost time from work." These employers have realized a significant return on their investment in their ergonomic programs.

SHR has found the most common risk factors to be workstations that are not designed or arranged for the worker's dominant hand, chairs not adjusted appropriately for the worker and the worker's desk, and extended keyboard shelves that do not accommodate the mouse.

"Unfortunately, it is not common practice to evaluate ergonomic programs in terms of



reduced disability, increased comfort, and associated costs,” Ms. Taylor lamented. “One of the greatest challenges is determining the return on investment of ergonomics programs since it is difficult to determine when disability has been prevented.” Between 50% and 83% of SHR-assessed employees had reported some form of physical symptom or health concern, but 83% to 90% of them subsequently reported reduced or alleviated symptoms within one month of making the recommended changes.

EMPLOYERS’ EXPERIENCE

Two Michigan employers’ experience with workstation ergonomic assessments have made them great boosters of such programs: Robert Bosch Corporation and Kalamazoo County Government.

The Bloomfield Hills office of Robert Bosch Corporation, an international automobile parts company, works on research, design, and sales to the big three automakers, and is known for such products as ABS systems, airbags, motors, and headlamps, Donna Edwards, facility supervisor, told the *Employee Benefit Plan Review*. As of the end of January, the facility employed 650 workers, mostly males between 25 and 40 years old in white collar jobs. Plans call for the work force to be expanded soon to 1,200 to 1,400 workers.

Robert Bosch Corporation began an ergonomic assessment program in the third quarter of 1996 when an executive secretary’s physi-

cian recommended workstation review to alleviate the employee’s extreme back pain. Ms. Edwards wanted a professional reviewer independent of any furniture manufacturers and an office furniture supplier recommended SHR. A couple of minor adjustments in the secretary’s workstation brought relief, and when Bosch implemented other SHR-recommended changes involving furniture rearrangement, improvement continued. “From that moment on, I took the program and started moving full-speed ahead,” expanding it at first to other executive secretaries, then to all secretaries, and finally, to all employees, Ms. Edwards said. “The program is a very huge success around here.”

Since then, 154 employees have been evaluated, and of the 55 symptomatic employees, 48 reported reduced or resolved symptoms. Ms. Taylor visits the facility once a month for at least one full day and sees employees evaluated the previous month to determine if they made the recommended changes and to assess the results, and then performs new evaluations of employees in departments scheduled for review or of symptomatic employees that request a review.

Since Bosch is building a new, larger facility to accommodate its rapidly expanding work force, SHR will review workspace design “to try to combat some of the potential problems before they even happen,” Ms. Edwards said.

Company management has not required cost justification for the ergonomic evaluation program, although the cost really is nominal, Ms. Edwards said. Typically, equipment that is already available at the corporation is used, with position adjustments, for example. Ms. Edwards has worked with the human resources department from the very beginning and the company regards the program as a proactive, prevention project. As a bonus, the company is already complying with the latest OSHA requirements on ergonomics.

KALAMAZOO COUNTY

Kalamazoo County Government, in Kalamazoo, Mich., employs 1,000 service workers, mostly women younger than age 50. The County hired SHR in September 1997 to perform ergonomic assessments of the work-

Industry Group	Have Medium Or High Incidence Of RM/CT* Injuries	Have Budget For Lost-Time Prevention Services
Overall	43%	51%
Wholesale/Retail	36%	71%
Transportation/Communication	23%	60%
Services	33%	54%
Manufacturing	70%	36%

*repetitive motion/cumulative trauma injuries

Source: Intracorp

stations of symptomatic employees, explained Renee Hotte, assistant human resources director.

“I came from a workers’ compensation insurance background; I have a lot of safety experience and I know you want preventive and proactive programs, instead of reactive ones, because reactive programs have much higher costs.” As of Jan. 18, 2000, the County Board of Supervisors had approved a new program to evaluate workstations for all county employees, regardless of symptoms. Symptomatic employees also receive a medical assessment.

Kalamazoo County has been its evaluating before and after experience, which led to the approval of the new, preventive program. Previously, employees complaining of carpal tunnel symptoms would go to the doctor who would recommend surgery and employees would be off work for six weeks for one wrist, Ms. Hotte said. In addition to the direct costs of surgery and the employee’s absence,

there were the indirect costs for replacement workers or for the time the absent employee’s coworkers would perform that employee’s job.

Of the 40 employees SHR evaluated since 1997, 27 were symptomatic, and 24 reported reduced or eliminated symptoms after making recommended workspace changes. The greatest benefit of the workstation ergonomics evaluation program is the elimination of lost time claims, and that employees no longer hurt when they are at work, Ms. Hotte reports.

The County has a monthly “safety” meeting attended by representatives from each department and union group. To implement the ergonomic evaluations for symptomatic employees, Ms. Hotte asked representatives at these meetings to tell employees reporting symptoms to call Ms. Hotte or fill out an accident report. “Word of mouth spread really quickly,” Ms. Hotte said. The preventive ergonomics evaluations of all employees will be performed methodically by department. ♦