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## NIOSH - UPDATE

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### STRATEGIC REST BREAKS REDUCE VDT DISCOMFORTS WITHOUT IMPAIRING PRODUCTIVITY, NIOSH STUDY FINDS

Short, strategically spaced rest breaks can reduce eyestrain and musculoskeletal discomforts for video display terminal operators without decreasing productivity, the National Institute for Occupational Safety and Health (NIOSH) reports in a new study. The findings are published in the May 2000 issue of the scientific journal *Ergonomics*.

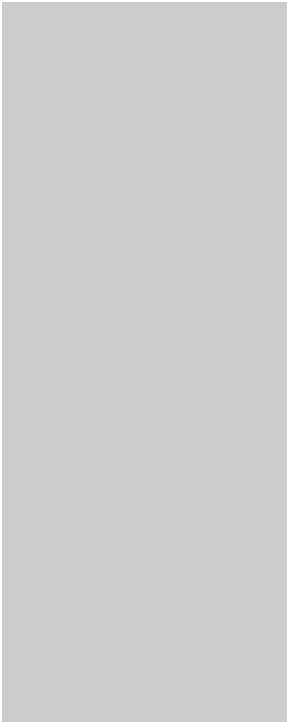
The study compared results under two rest-break schedules for a group of 42 data-entry operators employed by the Internal Revenue Service (IRS). Under one schedule, the VDT operators worked their regular daily schedule that included two 15-minute rest breaks, one in each half of the work shift. In the other schedule, the conventional breaks were supplemented with four 5-minute breaks spaced throughout the workday.

The workers consistently reported less eye soreness, visual blurring, and upper-body discomfort under the supplementary schedule. Quantity and quality of work were comparable under both schedules, as measured by numbers of keystrokes and operators' accuracy in typing data from paper forms into the computer.

Adding short breaks through the day may relieve cumulative discomforts from repetitive motions and static postures in a way that conventional break schedules do not, the findings support.

"As the U.S. moves from a manufacturing economy to a service economy, more and more workers are employed in VDT-intensive jobs," said NIOSH Director Linda Rosenstock, M.D., M.P.H. "It is encouraging that practical steps exist for improving job quality and perhaps reducing a risk of musculoskeletal injuries for these growing numbers of workers."

The study was one of a series conducted by NIOSH at the request of the IRS and the National Treasury Employees Union (NTEU). NIOSH was asked to work with IRS and NTEU to evaluate the effects of various changes in work organization and



ergonomic design for reducing VDT operators' musculoskeletal discomforts at a tax document processing center.

NIOSH, IRS, and NTEU collaborated on developing and evaluating the supplementary rest break strategy. For comparisons, the data entry operators were asked by questionnaire to use a numerical scale to rate levels of discomfort in the hands, wrists, forearms, elbows, upper arms, shoulders, neck, back, buttocks, and legs. They also were asked to rate levels of eye soreness, visual blurring, headache, cheerfulness, energy, tension, and fatigue. The results were statistically analyzed, and mean ratings were obtained and compared for each category under the two break schedules.

For further information on the study and on other NIOSH research on health and safety issues related to VDTs, call the NIOSH toll-free information number, [1-800-35-NIOSH](tel:1-800-35-NIOSH) (1-800-356-4674) or visit NIOSH on the World Wide Web at [www.cdc.gov/niosh](http://www.cdc.gov/niosh).