



### **GEORGIA TECH VIDEO:** **ERGONOMICS STUDY --** **MAKING WORKPLACES** **SAFE, COMFORTABLE**

October 21, 1991

Supervisors can make their businesses healthier places to work with help from a training program developed by Georgia Tech Research Institute (GTRI) scientists.

#### **VISUALS AVAILABLE:**

- \*Groups of employees using sewing machines in a factory.
- \*Individuals sewing in the workplace.
- \*Close-up of machine needle and presser foot sewing fabric.
- \*Person typing at a computer keyboard and video display terminal.
- \*Person carrying large bundle of fabric.
- \*Interview with Dan Ortiz.
- \*Many shots include sound of factory in operation.

"A Stitch in Time: The Supervisor's Guide to Ergonomics" is based on a two-year study, during which researchers talked to more than 130 factory employees -- many of them sewing machine operators -- about what causes them pain on the job.

Study results show that equipment and environments may cause pain by requiring employees to sit or stand in uncomfortable positions for long periods. Culprits include awkwardly designed machinery, cramped chairs, too-high tables and dim lighting, for example.

Supervisors have good reason to want to alleviate on-the-job pain among employees. Pain makes workers uncomfortable, decreases staff morale and increases high medical claims and employee turnover, says Daniel J. Ortiz, a GTRI senior research scientist and ergonomics program manager. Carpal Tunnel Syndrome (CTS), a numbness and pain in the wrist area caused by repeating movements over and over, can require surgery -- and has been associated with repetitive tasks such as cutting meat or poultry.

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The researchers found that comfort and heights of chairs are the most common causes of pain. Backache complaints subsided almost completely after workers at one factory were given easily adjustable chairs they could fit to their individual needs.

The training program teaches supervisors how to recognize risks in the workplace and spot workers who may be uncomfortable. Using the training manual and a video, supervisors learn to consider factors such as lighting, noise levels and the body positions employees must assume to reach their equipment.

The GTRI study did not find significant jumps in production linked to ergonomic improvements, as previous studies have -- however, researchers say fewer medical claims, lower turnover and higher morale are good reasons to make ergonomic improvements.

The scientists' next step is studying how "modular manufacturing" might help workers avoid cumulative trauma disorders. Modular manufacturing makes employees responsible for a variety of tasks, rather than just one, thus avoiding constant repetition and possible injury.

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***If you are interested in reporting on this research and need more information or missed our Wednesday, October 16 satellite feed, please call Toni Mills at (404) 853-0459 or Lea McLees/John Toon at (404) 894-3444. Dan Ortiz can be reached at (404) 894-8276.***