

# The Effectiveness of Back Belts on Occupational Back Injuries and Worker Perception

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Health professionals have a high incidence of low-back pain and disability, primarily due to patient-handling tasks. In fact, nurses' aides and nurses report more serious injuries of this type than those of women in any other occupational group.

This article describes a study of 60 workers in nursing and environmental services who were divided into two groups--one wearing back supports, the other unbelted. The data was analyzed with two questions in mind:

Did the number of work-related back injuries decrease during the three-month belting period?

Did employee perception of physical well-being change, as expressed in terms of perceived pain?

"No statistically significant difference in the number of self-reported work-related back injuries was found between belted and control groups. This indicates the use of back belts alone is not the solution to reducing occupational back injuries," say the authors, Adrienne Alexander, Sandra M. Woolley, Michael Bisesi and Eric Schaub.

However, "subjects expressed positive attitudes toward back belt use" and "all but one belted subject stated that belts reinforced proper lifting techniques."

The authors suggest "improved attitudes may increase productivity, decrease sickness, foster positive interaction among employees and reduce on-the-job errors."

Results of a table titled Perceived Rating of Back Belt Use show that 70 percent of the belted group felt back belts aided injury avoidance and 100 percent felt they provided additional support when lifting. Nearly two-thirds of the subjects said belts reduced pain and more than half believed they facilitated job performance.

And, the article reports, 97 percent said they would continue to wear belts after the study because belts made them "feel good."

The group had two common complaints--that the belts rode up and that they increased perspiration. Several women said they were uncomfortable to wear during menstruation and several suggested that pockets or a pen compartment be added to the belt since it covered their pockets.

The authors, all of whom are associated with the Medical College of Ohio, Toledo, OH, recommend that future research should involve a larger subject population and a longer study period.

"One could argue that three months is not sufficient time to render power to the analysis, and that a longer study period may generate different results," says the article.

"Therefore, the issue of back belt effectiveness in preventing or reducing work-related back injuries requires further study."