



Loss Control Department
Technical Information Paper Series

Back Belts:
*Are They The Solution for
Reducing Back Injuries
Related to Lifting?*

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Back Belts:

Are They The Solution For Reducing Back Injuries Related To Lifting?

Rarely a day passes without questions concerning the usefulness of "back belts." This paper is intended to provide information on the subject which may help concerned individuals make logical decisions for their work places.

Summary

The body of knowledge on the subject of back belts is limited. Many studies on back belts are of questionable value because they lack matched control groups or have had little follow-up research. Regardless upon which side you stand on the back belt issue, there is probably research to support your view. Your decision about whether or not to use back belts is best made by critically examining your own system, not by reading research. Each company's situation is different.

The decision to implement a back belt program, or to not do so, is difficult. Some thoughts, and some DOs and DON'Ts, might help.

- Money is a major consideration. Back belts are expensive. Your options range from not providing the belts, to providing them only for high exposure jobs, only upon request of the individual, or, to everyone in the facility. Then, you need to decide whether the wearing of the belts will be required, or voluntary. In-house trials might prove useful, where selected individuals are given back belts initially, while others are not. Be aware that this can create a "left out" feeling for those who are not included with the initial group.
- Back pain is ubiquitous. Some have estimated that 90% of the adult population in the United States can remember their last episode of back pain. Whether or not that is true, we do know it is difficult to find someone who has never had back pain.

The cause of back pain is usually difficult to determine. Although awkward back postures, particularly when they are combined with forceful movements, often receive the blame, many back pain occurrences involve neither awkward postures nor high forces.

⇒ Don't overlook other aspects of your operation which may be contributing to back injury related claims: difficult management/labor relations, high intensity working conditions, high speed machine-paced work, boring or dangerous work, inappropriate tools, or poorly designed machines.

- In most workplaces, *competent engineering can cost-effectively eliminate most traditional back injury hazards*, whether the exposures are bending, twisting, or lifting, or sustained back flexion or extension.
 - ⇒ Don't implement a back belt program to overcome poor engineering. It will likely prove ineffective, and OSHA may frown upon it.
 - ⇒ Do use astute layout engineering, informed equipment purchasing, and excellent worker selection, placement, supervision, and training. These activities may obviate the need for back belts, and perhaps solve a host of other difficulties.
- Some people consider back belts a form of personal protective equipment (PPE), although OSHA does not recognize back belts as PPE.
 - ⇒ *Consider using any personal protective equipment only when a hazard cannot be eliminated or mitigated through administrative or engineering controls..*
- To be effective, the use of back belts must be accompanied with a management commitment to:
 - ⇒ Design out hazards where practical
 - ⇒ Train everyone on proper body mechanics and use of the belts before you issue the belts
 - ⇒ Enforce proper body mechanics and proper wearing of the belts.
- Physical fitness seems to play a significant role in back pain prevention.
 - ⇒ Continuously encourage your people to become, and stay, physically fit. It helps both them and the company. Weight loss for the obese, aerobic fitness, and smoking cessation are all beneficial life changes.
 - ⇒ Encourage, or even provide, screening tests for cardiovascular diseases. Blood pressure, cholesterol levels, and blood sugar tests, are examples of screening tests which the employer can provide at reasonable cost.
 - ⇒ Don't assume that a worker who performs physically demanding tasks all day is in good condition.

Conclusion

It's impossible to design out all hazards for back discomfort. However, almost all organizations can be far more proactive in this area.

Many people simply need to take better care of themselves. They have poor muscle tone, they are not aerobically fit, and they do not use proper body mechanics in their work habits (including pre-work conditioning and stretch breaks).

Training in proper body mechanics, both at work and at home, is essential. Supervisors should ensure that their employees apply proper body mechanics throughout the workday. And management must monitor and *enforce* the use of proper body mechanics on the job.

Back belts may have their place in certain limited applications where re-engineering of the system or workstation is not possible. If the decision is made to issue back belts, a management commitment is required to train employees in the proper use of the belts, and then to enforce that training, while encouraging proper body mechanics at all times.

Guidelines For Use

- Do not use a belt as a substitute for effective engineering or administrative changes.
- Use the belt as it is designed to be used.
- Provide thorough training for the wearer and the supervisor.
- Ensure that the belt is of the type which will loosen when the user is not engaged in lifting or carrying.

A belt that cannot easily be released is not recommended.

- Encourage the user to maintain good physical fitness, particularly good back and abdominal muscle strength.

No device can overcome the negative effects of obesity and poor physical conditioning.

- Provide a pre-injury work hardening program; this is helpful.
- Counsel the user not to over-lift just because he or she is wearing a belt.

Back belts do not increase a person's ability to lift heavier objects.

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