BACK BELTS
Do They Prevent Injury?

Back injuries account for nearly 33% of all injuries and illnesses in the workplace and cost the nation an estimated 20 to 50 billion dollars per year or 40% to 45% of the total workers compensation claim costs. The National Institute for Occupational Safety and Health (NIOSH) believes that the most effective way to prevent back injury is to implement an ergonomics program that focuses on redesigning the work environment and work tasks to reduce the hazards of lifting.

In response to the increasing human and economic costs of back injury, organizations have implemented numerous other measures, either in conjunction with or in place of sound ergonomics programs. For instance, there has been a dramatic increase in the use of industrial back belts.

Back belts were initially used in medical settings. These belts, termed "orthoses", resemble the corsets worn by women in the nineteenth century and are typically used to provide additional back support during rehabilitation of injuries. Subsequently, athletes began using leather belts for weight lifting. Only in recent years has the "industrial back belt" been widely used. While there are more than 70 types of industrial back belts, the typical abdominal support used in workplaces today is a lightweight, elastic belt worn around the lower back, sometimes held in place with suspenders.

While there is a general consensus that back belts are useful medical aids to deal with back injuries, there is no such consensus for the use of back support belts for prevention of injuries. NIOSH believes that the decision to use back belts should be a voluntary decision by both employers and employees. Back belt use should not be a mandatory job requirement. If your workforce continues to wear back belts, you should remember the following points:

- There is little scientific evidence that back belts either prevent or exacerbate injuries.
- Workers wearing back belts may attempt to lift more weight than they would have without a belt. A false sense of security may subject workers to greater risk of injury.
- Workers and employers should redesign the work environment and work tasks to reduce lifting hazards, rather than rely solely on back belts to prevent injury.

NIOSH is not alone in questioning the effectiveness of back belts. Other institutions issuing similar statements include the American Industrial Hygiene Association, the Bureau of Mines, the Army Office of the Surgeon General, the State of Washington Department of Labor and Industries, the Alberta Ministry of Occupational Health and Safety (Canada), the United Brotherhood of Carpenters, and the Construction Safety Association of Ontario. NIOSH has provided an excellent pamphlet on back belts entitled "Back Belts - Do They Prevent Injury?" A copy of this may be obtained at http://www.cdc.gov/niosh/backbelt.html

Rather than relying on back belts, organizations should begin to implement a comprehensive ergonomics program that strives to protect all workers. The most effective way to prevent back injury is to redesign the work environment and work tasks to reduce the hazards of lifting. Training in identifying lifting hazards and using safe lifting techniques and methods should improve program effectiveness.

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A first step in implementing an ergonomics program would be to evaluate jobs that require frequent lifting; twisted or bent postures; or pushing or pulling. Redesign these tasks so that:

- The load is close to the body;
- The load is between shoulder and knuckle height;
- Twisted lifts are eliminated;
- Gravity moves the load when possible using slides, chutes, hoists, and hand trucks for heavy loads;
- Weight is reduced to the lowest feasible level.

The back belt industry maintains that back belts do work. They base this on a joint study between UCLA and Home Depot during the six-year study period from 1989 to 1994, which was paid for by the industry and had some study design shortcomings. The Journal of the American Medical Association (JAMA) Dec. 6th, 2000 issue featured an article outlining the most comprehensive study on retail back belt use in history. The conclusion was that there is no evidence that back belts work. This most recent study reinforces NIOSH's position and would further call the UCLA/Home Depot study into question.

Keeping in mind the importance of employee physical fitness, wellness, safety and training, members should introduce a comprehensive back safety and awareness program. This program should coincide with the implementation of an ergonomics and wellness program to address the potential for other musculoskeletal injuries that may occur. As part of this program, Conner Strong Risk Control asks that members review their current program for the random distribution and use of back belts.