



Back belts may not prevent injuries at work

What is a *back belt*?

A *back belt* is a device that some people believe supports the spine and reduces loads during lifting. Back belts are typically made of lightweight elastic, and fit around the waist and lower back. They are generally worn outside work clothes, and can be held in place with suspenders. Back belts are also known as *weight lifting belts*, *abdominal belts*, and *back supports*. There are many different types of industrial back belts commercially available.

Back belts are not personal protective equipment (PPE).

WorkSafeBC does not consider back belts to be personal protective equipment (PPE) as referred to in the Occupational Health and Safety Regulation. There has not yet been convincing evidence that back belts lessen the hazards of strenuous or repetitive lifting, pushing, pulling, twisting, or bending.

Studies do not support claims about back belts.

Studies have not shown that wearing back belts prevents back injuries – study results cannot be used to either support or refute the effectiveness of back belts in injury reduction. Although back belts are being bought and sold under the premise that they reduce the risk of back injury, there is insufficient scientific evidence that they actually deliver what is promised.

Note: WorkSafeBC's primary focus is on the prevention of injury. This commentary does not address the use of back belts as medical treatment during injury rehabilitation.

Back belts could increase the risk of injuries.

There is some evidence that workers believe they can lift more when wearing a back belt. This may give workers a false sense of security, and increase the risk of injury. Back belts may also strain the cardiovascular system. Long-term use of belts may cause stomach muscles to lose strength, which may increase the risk of injury when the belt isn't being worn.

Prevention programs reduce back injuries.

A more effective way to prevent back injuries is to have a comprehensive occupational health and safety program in your workplace. An effective program will help:

- Identify where and why injuries are occurring
- Assess the exposure of workers to risks such as heavy lifting, pushing, pulling, and carrying
- Eliminate or minimize the risks by changing equipment, tools, workplace layout, or work organization

Back belts DO NOT:

- **Reduce forces on the spine**
Lifting and handling loads produce forces on the spine that can contribute to the risk of injury.
- **Increase intra-abdominal pressure**
Some believe that increasing pressure within the abdomen counterbalances or protects against forces on the spine. Studies are inconclusive about whether back belts increase intra-abdominal pressure, or whether this would even reduce the risk of back injury.
- **Brace the spine and reduce bending**
There is no conclusive evidence that back belts help brace the spine, or that a rigid spine reduces back injuries. Back belts generally do not reduce the forward bending that is common in most lifting situations.
- **Remind workers to lift properly**
There is little scientific evidence that back belts remind workers to avoid awkward postures and heavy loads that contribute to back injuries.
- **Reduce injuries**
While there are some reports of injury reduction in companies using back belts, these companies have usually also implemented training and ergonomics programs. There is no proof that back belts alone reduce back injuries.