



Non-prescribed wrist braces may not prevent hand and arm injuries at work

What are wrist braces?

More than 65 different “off-the-shelf” wrist braces – also called splints – are on the market. They vary in design and cost from about \$5 to \$100. They are usually made of leather, cloth, plastic, or elasticized material. Some have reinforced metal bars to keep the wrist straight. Wrist braces immobilize the wrist and may fasten by drawstrings, plastic clips, or velcro.

How are wrist braces used in the workplace?

Some workers wear off-the-shelf, *non-medically prescribed* wrist splints or braces to prevent pain or injury to the wrists, hands, or arms. Others put on an off-the-shelf wrist brace after they feel wrist pain, thinking they can prevent further injury by keeping their wrist immobile.

Do wrist braces prevent hand and arm injuries?

The evidence suggests that wearing non-prescribed wrist splints and braces does *not* prevent injuries to the muscles, tendons, and nerves in the hands and arms. In particular, wearing a brace is not likely to prevent injuries such as tendinitis (inflammation of a tendon) and carpal tunnel syndrome (injury to a nerve passing through the wrist). In fact, wearing a non-prescribed brace may worsen symptoms or contribute to a strain in another part of the body.

When should you use a wrist brace?

Wear a medically prescribed brace that your doctor, physiotherapist, or occupational therapist advises for a specific injury or disease. Usually, medically prescribed braces are custom-made rather than bought off-the-shelf, and are recommended for resting the joint and muscles, allowing healing to take place. Such braces are often tailored to the patient’s needs and condition and are often prescribed for night use.

Use a brace at work if your doctor agrees that immobilizing the wrist in your particular job will not make the injury worse or lead to other types of disorders.

Non-prescribed wrist braces are not personal protective equipment

- The Prevention Division of the Workers’ Compensation Board (WCB) of B.C. does not consider non-prescribed wrist braces to be personal protective equipment (PPE) as referred to in the WCB’s occupational health and safety regulations.
- Non-prescribed wrist braces are not likely to prevent injuries from occurring – in fact, they may increase the risk of injury.
- The WCB doesn’t support, require, or prohibit the use of wrist braces for injury reduction.

Prevention programs prevent hand and arm injuries

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

- Identify where and why injuries are occurring
- Assess the exposure of workers to risks such as repetitive movements, awkward postures, and forceful gripping
- Control or eliminate the risks by changing equipment, tools, workplace layout, or work organization

Wearing wrist braces may lead to . . .

• Stress on other joints

Bracing a joint (for example, the wrist) may increase the stress on others joints (for example, the elbow and shoulder) because other joints must make up for the lack of motion in the braced joint.

• Muscle weakness

When a joint is immobile, muscles around the joint aren’t used and may become weaker. When the brace is removed, weakened muscles may be more prone to injury.

• Joint immobility

Keeping a joint immobile for a long period – such as four weeks – can result in a reduced range of motion in that joint. This may leave a worker more prone to injury when the brace is removed.

• Other problems

There is evidence that a brace may increase the pressure within the wrist, which may actually increase the risk of injury. And when working with a brace, workers may have to use extra force because they have limited motion – this can also increase the risk of injury.