

## MUSCLE AND JOINT INJURY FIRST AID

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Physical injury to your muscles and joints can occur with workplace, household, sporting, and recreational activities. This can cause pain, stiffness, and swelling in a joint or muscle, leading to injuries known as *sprains*, *strains*, and *contusions*. Initial conservative management and first aid of such injuries should follow the **P.R.I.C.E.** principle (**P**rotection, **R**est, **I**ce, **C**ompression, **E**levation) outlined below.

**PROTECTION:** Immobilize the injured area to protect from further injury. This can be accomplished with the use of an elastic wrap, brace, splint or sling. Walking aids such as crutches or a cane can be useful to help you get around.



**REST:** To ensure proper healing, rest the injured area and avoid activities that cause pain. Do not restrict all activities completely. Other regions of your body can still be used. This will help prevent physical de-conditioning. An attempt should be made to return to regular or modified activities as soon as possible provided it does not put you at risk for further injury.

**ICE:** Ice cubes, frozen vegetable bags, or commercial ice/gel packs are examples of cold sources that can be molded or applied to an injury site immediately. Icing will help to reduce pain, swelling, and inflammation in the injured tissues. Ice application should not exceed 10 to 20 minutes at a time. Allow for skin temperature to return to normal before ice is reapplied. This cycle can be repeated as often as necessary within the first 24 to 72 hours. Ice should never be applied directly over the skin for a prolonged period of time as this can damage the skin. A damp towel can safely be used as a barrier between the ice and skin and acts as an excellent conductor of cold. Do not apply ice to blisters, open cuts, or sores. Individuals hypersensitive to cold and those who have circulation problems should avoid ice.

**COMPRESSION:** Compress the injured area with an elastic tensor bandage. This will help decrease swelling. Do not wrap the bandage too tightly as to cut off circulation. You should not feel an increase in pain with compression.



**ELEVATION:** Elevate the injured area (whenever possible) above the level of the heart, especially at night. Gravity helps reduce swelling by draining excess fluid.

You should seek immediate medical care under the following circumstances: a popping sound heard during the injury accompanied by a feeling of joint instability or inability to weight bear; obvious evidence or suspicion of a broken bone, fracture or joint dislocation; or injuries at risk for infection.

By using the **P.R.I.C.E.** principle after an injury, you can significantly reduce swelling, tissue damage, inflammation, muscle spasms, pain, and recovery time. In the event that you suffer from ongoing muscle and joint pain following an injury, you should contact a licensed health professional who can diagnose your condition and prescribe appropriate therapy, exercises, and rehabilitation strategies specifically for your circumstance. For more information, visit [www.nhwc.ca](http://www.nhwc.ca).

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