

PROTECTION

REST

ICE

COMPRESSSION

ELEVATION

WHY DO WE DO IT?

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The **PRICE** regime is widely used in the management of acute sports injuries, although many sports people use it not many people know why.

The management of an acute soft tissue injury during the first 72 hours is vitally important. If managed appropriately it can ultimately lead to a quicker return to sport, although this does also depend on the severity of the injury.

Most injuries can be classified into 3 different grades.

Grade I - being a very mild injury that is a result of a soft tissue being stretched. There is minimal swelling and bruising but pain can be present. No joint instability is felt and there is minimal muscle spasm and loss of function.

Grade II - being a more moderate injury where actual tearing of soft tissue has occurred. Moderate bleeding and swelling are present as is pain especially if the injured area is stressed. Some joint instability may also be present.

Grade III – is the most severe of all injuries and it involves a complete tear of the soft tissue. There is significant swelling and bruising with severe pain even at rest which significantly interferes with function. Gross instability and muscle spasm are present and function is severely impaired. In this case surgery may be needed.

The management of a soft tissue injury during the first 72 hours has 8 aims:

- To reduce local tissue temperature.
- To reduce pain
- To limit and reduce inflammatory exudates (swelling)
- To reduce the metabolic demands of the tissues
- To protect the damaged tissue from further injury
- To protect the newly-formed tissue bonds from disruption
- To promote collagen fibre growth and realignment
- To maintain general levels of cardio-respiratory and musculoskeletal fitness/activity.

These aims are met by applying the PRICE regime within the first 72 hours of an injury.

PROTECTION

Is required to protect the injured tissue from undue stress which may disrupt the healing process. Very weak bonds form in the tissues very soon after an injury, if these bonds are stressed to much they can break very easily. This then leads to re inflammation and a general slowing down of the healing process. This ultimately leads to a delay in the healing process rather than promoting healing.

Protection may be applied in many different ways according to what you may have available. A plaster cast may be applied, taping the area or the use of slings (in an upper limb injury) and crutches (in a lower limb injury).

REST

Is required to reduce the metabolic demands of the tissues in the injured area and thus avoiding any increase in blood flow (which can lead to an increase in swelling). It also stops the injured sports person putting undue stress on the injured tissue which can disrupt the fragile bonds that start forming in the initially stages of healing (as mentioned above).

Rest may be selective, some general activity may be allowed, but the injured area must not be involved in the activity. Rest may be achieved by advice, avoidance of certain movements, the use of slings, braces and crutches etc...

ICE

Ice is used in an attempt to limit the damage caused by the injury, by reducing the temperature of the tissues at the site of the injury and consequently reducing metabolic demands, it causes vasoconstriction which may help to limit the bleeding. Ice may also reduce pain by increasing threshold levels in the free nerve endings and at synapses, and by increasing nerve conduction latency to promote analgesia.

It may be applied in a number of ways but the most common and affective is crushed ice placed in a damp towel over the injured area for 10 – 15 min.

COMPRESSION

Compression is applied to limit the amount of swelling in the injured area. Swelling is caused by fluid that leaks from the tissues into the surrounding area. Although some fluid is necessary for the healing process to occur, controlling the amount of swelling in the area reduces the amount of scar tissue formed and therefore may lead to a quicker recovery. Compression can be applied by the use of special compression bandages or securing the ice around the limb by clingfilm.

ELEVATION

Elevation of the injured part lowers the pressure in the local blood vessels and helps to limit the bleeding into the area. It will also increase drainage of the fluid via the lymph vessels, thus reducing / limiting the swelling and its resultant complications. Elevation of the injured area above the heart is ideal.

As you can see using the PRICE regime in the first 72 hours following an injury provides the tissues with the best possible environment for recovery, ultimately leading to a quicker return back to sport.

If you would like any further information on the above just get in contact with one of the physiotherapists at Physio 4 life.

(The above information has been adapted from the CSP PRICE guidelines, 1998).