

PRICE treatment, Cryotherapy (cold therapy) & Contrast Bathing

Treating inflammation with PRICE - immediately after injury and for 3-5 days afterwards

Tissue injury usually involves damage to small blood vessels that results in bleeding at the site of injury. This bleeding leads to the five main signs of inflammation: heat, redness, swelling, pain and loss of function. The inflammatory reaction is necessary as it is part of the natural healing process. However the body tends to overreact to sudden traumatic injury and as a result more inflammatory fluid accumulates than is necessary for healing. This fluid contains a protein that turns into replacement 'scar' tissue. Too much scar tissue may prevent the structure returning to normal function with reduced flexibility and increased risk of re-injury. The advice below should be followed for 3-5 days depending on severity. It can be remembered by the acronym **PRICE**.

- **PROTECT** - Protect the injured tissue from undue stress that may disrupt the healing process and/or cause further injury. Make sure the mode of protection can accommodate swelling.
- **REST** - This reduces the energy requirements of the area, avoids any unnecessary increase in blood flow, ensures protection of the area and optimises healing. For example using slings, crutches or static rest (ie. sitting or lying down).
- **ICE** - The ice helps constrict the blood vessels thereby limiting bleeding and reducing the accumulation of unnecessary scar tissue. Crushed ice wrapped in a damp towel (to prevent ice burn) is best (ice cubes can be wrapped in the cloth and smashed against a wall to crush the cubes). Ice should be applied immediately after injury for 20 minutes every 3-4 hours or no more than 5-10 minutes at a time on bony areas.
- **COMPRESSION** - Simple off-the-shelf compression bandages such as Tubigrip™ and adjustable neoprene supports are adequate. It is important to ensure the bandages are not too tight to cause pins and needles or any loss of feeling around the joint.
- **ELEVATION** - Lowers the blood pressure and helps limit bleeding and encourage drainage of fluid through the lymphatic system.

When following **PRICE** it is also important to avoid **HARM**, hence the saying: 'Give **PRICE** and avoid **HARM**'.

AVOID

H - Heat (eg. hot bath, sauna)

A - Alcohol

R - Running

M - Massage



these are counter-productive to **PRICE** treatment

- **REMEMBER:** If it is a recent injury (strain, sprain, severe bruise, 'putting back out') always use COLD (ice the area) until it starts to calm down (pain, heat, swelling reducing)!
- **TENDONITIS:** If you have ACUTE tendonitis (eg. golfers/tennis elbow, Achilles) icing the area is also indicated. However, only when inflammation is still present (tendon hot, swollen, tender) in the first 2-3 months. After the acute, inflamed stage the condition changes to tendinosis and contrast bathing will be more helpful!
- **ICE MASSAGE:** You can give an injured area an ice massage by freezing water in a paper/cardboard cup (or using a big ice cube in a cloth). Move smoothly over the injured area with a light pressure for 5-10 minutes. Keep ice moving at ALL TIMES to avoid ice burn! You can also use frozen peas wrapped in a tea towel for cold therapy.

Contrast bathing (for sub-acute injury, inflammation reduction and tissue healing)

Is the alternation of hot and cold to injured tissue/joints to promote blood flow (eg. nutrients & oxygen) and aid lymphatic drainage (to reduce swelling). You always start with COLD! It is also helpful to 'flush' chronic inflammation out of area but should NOT be used until the sub-acute stage (pain, swelling & heat reducing after 3-5 days)! With soft tissue injury (sprains & strains) you ideally want to use contrast bathing 2 x day for about a month after PRICE treatment, then switch to a hot pack. You can use bowl of hot (test with elbow first) and a bowl of iced water or a hot wheat/cherrystone pack and an ice pack/frozen peas wrapped in a tea towel. You can also use a shower, turning the heat up and down (test with another area to check it's not too hot each time). Apply cold>heat in the following way:

1. Cold: 5 mins
2. Hot: 3 mins
3. Cold: 1 min
4. Hot: 3 mins
5. Cold: 1 min
6. Hot: 3 mins

Heat Therapy (thermotherapy)

Heat is often used incorrectly on recent injury's or inflamed tissue where it may actually increase pain and inflammation (cold should be used instead). However, heat can be very helpful in most chronic pain conditions, osteoarthritis, muscular tension, older injuries (after 2 weeks-2months depending on severity) and myofascial pain. Heat relieves pain, relaxes muscles, increases circulation and increases fascia extensibility (reducing stiffness). Use a wheat/cherrystone pack, hot water bottle, heat pack or bowl of hot water for 15-30 mins 2 x day. Stretching muscles after heating them can increase beneficial effects!

e: kclark@altonadvancedbodywork.co.uk

w: www.altonadvancedbodywork.co.uk