

### **LMC RICE Advice – Acute Soft Tissue Injuries**

The most important treatment window of a soft tissue injury is the 24 hours immediately following trauma. When soft tissue is injured the blood vessels are usually damaged too. Thus, blood accumulates which causes local compression and may lead to a secondary ‘hypoxic’ injury to the surrounding area. The most appropriate way to treat an acute soft tissue injury is summarised by the letters RICE.

R	Rest
I	Ice
C	Compression
E	Elevation

#### **Rest**

Whenever possible following an injury all activity should be ceased. A small amount of movement to stop things seizing up may be beneficial but this should only be within pain free range.

#### **Ice**

Immediately after the injury ice is used to reduce tissue metabolism. There is no high quality evidence for how long, and how often, to apply ice after an acute injury.<sup>1, 2</sup> I find 10 minute applications every 1-2 hours initially with a gradual reduction in frequency over the next 24hrs works well. Obviously care should be taken to avoid skin burns and nerve damage.

***Golden Nugget:** Cold reduces blood flow by causing the vessels to constrict. If ice is applied for long enough to cause a red patch then your efforts may be counterproductive. Red indicates increased blood flow, which is what you are trying to avoid. If you keep the cold on for too long the vascular muscles may be temporarily paralyzed thus they dilate (widen) and blood flow increases.*

#### **Compression**

This should be gentle. The body has complex systems which promote inflammation. You cannot work against these unless you stop blood flow completely which you do not want to do. Tight compression will, reduce the outflow of metabolic waste products, causing redness (increased blood flow!) and reduce the capacity for gentle pain free movement.

#### **Elevation**

By keeping the injured area above the heart you may reduce blood flow to the area.

---

<sup>1</sup> Bleakley C, Aronson S, MacAuley D. The use of ice in the treatment of acute soft tissue injury: a systematic review of randomized controlled trials. *Am J Sports Med* 2004; 32(1): 251-61

<sup>2</sup> Hubbard T, Aronson S, Denegar C. Does cryotherapy hasten return to participation? A systematic review. *J Athl Train* 2004; 39 :88-94

© Adam Richmond

Lace Market Clinic, 32a Stoney Street, Lace Market, Nottingham, NG1 1LL

[www.lacemarketclinic.co.uk](http://www.lacemarketclinic.co.uk)

t: +44 (0) 115 924 7171

e: [adam@lacemarketclinic.co.uk](mailto:adam@lacemarketclinic.co.uk)

#### **Disclaimer**

This information is intended to supplement professional medical advice not substitute for it. You should not use this information to diagnose or treat a health problem or disease without consulting with a qualified health care provider. Please consult your health care provider with any questions or concerns you may have regarding your condition. Any attempt to diagnose and treat an illness using the information in this site should come under the direction of a trained medical practitioner. We accept no responsibility for any adverse effects or consequences resulting from the use of any of the suggestions or procedures in this site or related internet links. By using the information in this web site you are confirming that you understand this statement and that you accept all risk and responsibility. All matters regarding your health should be supervised by your health care provider. All information provided in this site is for the purpose of education, not treatment.