

A brief guide to using ice after foot surgery

ICE and cold has long been known to reduce swelling by preventing inflammation from becoming a burden. Though inflammation is important and we do not want to impede its benefits the benefits of moving away waste products and bringing nutrients to the area to promote healing is important. The use of cold reduces the speed at which nerve signals are generated so that small c pain fibres are less active. Swelling causes loss of fluid from leaky blood vessels and this pressure is exerted on the c fibres and other pressure sensors. Any part of the foot that can swell will swell, but in confined areas such as toes, swelling can be highly uncomfortable.

Controlling pain doesn't mean stopping normal inflammation. I.C.E also stands for ICE-Compression-Elevation. Each component is vital to control discomfort. It is possible to achieve as much as 40% pain control with this regime. By using the methods described below in the table, post-surgical pain management can be very successful with the net benefit that fewer pain medication drugs are required.

Caution

Ice can damage skin. This is more so in the elderly. As ice reduces blood flow skin can be sensitive to frost burns so we never place ice directly over skin and indeed not over the wound site. We find placement around the ankle is safer. If the dressing is too tight ice may not help and you should contact our emergency number. Too much icing of the skin can delay healing.

How long should icing be used for?

The critical pain period lasts for first 48 hours, thereafter use this regularly each day to control swelling as well as pain. Once you start to walk on the foot swelling will increase and so it may be useful to continue with your ice regime for 3-6 weeks. There are no absolutes. You can use the systems at night but commercial systems are cleaner, although more expensive and more comfortable to use. As a rule use ice in bursts of 20-30 minutes and re-apply after 2 hours or if pain increases dramatically. Pain that does not subside must be reported for assistance.

Illustrations show ActiveWrap and AircastTM



Indications

- Swelling after foot surgery
- Reduce pain activity from nerve endings
- Subdue inflammatory chemicals inducing pain
- To help with joint movement and faster recovery

<i>Method</i>	<i>Useful hints</i>
Peas: Place the bag over the bandaged foot at the level of the ankle. Do not place this over the wound itself.	Cheap and contained within a bag. A large bag of peas on melting from the freezer will mould well. You will need several bags in order to rotate to keep this cool.
Ice in bags: Produce an intense coldness. Place at the level of the ankle. 20 minutes in the hour every two hours	Again cheap and you can crush ice from your freezer in a polythene bag but wrap it in a thin towel as it will create plenty of water on cooling.
<i>Commercial systems:</i>	
Aircast - This comprises of a cylinder (blue), and a connection pipe with non-returnable valve to the main cylinder in which you place ice, and then top up with water. The lid screws down. A jacket fits around the ankle and foot delivering controlled coolness for some 5 hours without changing the ice.	Included in our insured and inclusive cost surgeries. I use the Aircast cryocuff system . This system allows water to flow into the jacket but must be refreshed by altering the header pressure. Simply lift up every 3-5 minutes to renew the pressure and lower the temperature. The pipe must be protected around the top of the jacket as it can compress the skin making it sore.
A less well known system – Active Wrap , uses small blocks which can be frozen and slip into side pockets held in place with Velcro	The Active Wrap can be bought from Amazon, or from Harvardhealthcare.co.uk/activewrap with the small blocks for freezing

NB Ice can also be purchased from supermarkets in large bags for refreezing