Sheffield Knee & Hip Pain

Sheffield NHS
Primary Care Trust

HEAT AND ICE TREATMENT

This leaflet gives a general overview of ice and heat in the treatment of injuries. If in doubt about the use of ice or heat, consult a health professional such as a doctor or physiotherapist

With any sprain, strain or bruise there is some bleeding into the underlying tissues. This may cause swelling, pain and delay healing. Ice treatment may be used in both the immediate treatment of soft tissue injuries and in later rehabilitation.

During immediate treatment, the aim is to limit the body's response to injury. Ice will:

- Reduce bleeding into the tissues.
- Prevent or reduce swelling.
- Reduce muscle spasm and pain.
- Reduce pain by numbing the area and by limiting the effects of swelling.

These effects all help to prevent the area from becoming stiff by reducing swelling.

How do you make ice packs?

Ice packs can be made by placing crushed ice cubes in a plastic bag or wet tea towel (though ensure no sharp edges of ice are pressing into your skin). A packet of frozen peas is also ideal as these mould nicely around the injured area and can be used more than once as they can be refrozen (do not eat the peas if they have been defrosted and refrozen). Purpose-made cold packs can also be bought from pharmacies. Take care when using ice and cold packs from a deep freeze. These are very cold and can cause ice burns quickly if used without care and proper protection.

How are ice packs used?

- Ideally, rub a small amount of cream or oil over the area where the ice pack is to be placed (any cream or oil can be used). If the skin is broken or there are stitches in place, do not cover in cream or oil but protect the area with a plastic bag. This will stop the wound getting wet.
- Place a cold wet flannel over the area (you do not need to if using a plastic bag).
- Place the ice pack over the flannel.
- Check the colour of the skin after five minutes. If it is bright pink/red remove the pack. If it is not pink, replace the bag for a further five to ten minutes.
- Ice can be left on for 20 minutes but there is little benefit to be gained by leaving it on for longer. You run the risk of damaging the skin if ice is left on the skin for more than 20 minutes at a time.

Note: *ice can burn or cause frostbite if the skin is not protected with oil and/or other protection such as a wet flannel.*

How long should ice be applied for?

- Ideally, ice should be applied within five to ten minutes of injury for 15-20 minutes.
- This can be repeated every two to three hours, whilst you are awake, for the next 24-48 hrs.
- If you are applying ice over a bony area, such as an elbow, reduce the time of application to ten minutes.
- After the first 48 hours, when bleeding should have stopped, you can continue to use ice for pain relief and relaxation of muscle tissue.

Heat

- Do not use heat on a new injury (for example, soaking in a hot bath, using heat lamps, hot water bottles, deep heat creams, etc). This will increase bleeding and make the problem worse.

- When an injury is older than 48 hours, heat can be applied in the form of heat pads, deep heat cream, hot water bottles or heat lamps. Heat causes the blood vessels to dilate (open wide) which brings more blood into the area. It also has a direct soothing effect and helps to relieve pain and spasm.

- If heat is applied to the skin it should not be hot. Gentle warmth will suffice. If heat is applied there is the risk of burns and scalds.

- The skin must be checked at regular intervals.

How is heat used?

- Use a hot water bottle or hot pack over the area to be treated. Ensure the hot pack or water bottle is not too hot.
- You can fold a towel or two and place them on the skin under the hot pack, to prevent a burn.
- Check the skin regularly and remove the heat if the skin looks red (it should be a healthy pink colour).
- The heat can be applied for 20 minutes in one area.

Precautions when using heat and ice

Do not use cold packs or heat:

- Over areas of skin that are in poor condition

- Over areas of skin with poor sensation to heat or cold
- Over areas of the body with known poor circulation
- If you have diabetes
- In the presence of infection

Also

- **Do not** use ice packs on the left shoulder if you have a heart condition
- **Do not** use ice packs around the front or side of the neck