



Ice Therapy for Acute Injuries

Indications

Ice therapy, or *cryotherapy*, is commonly used after an injury to reduce swelling and decrease pain. Ice decreases blood flow to the injured tissue and reduces inflammation.

When to ice?

Ice should be used for the first 2 to 3 days after an injury or until the swelling goes away.

Procedure

Ice packs - Prepare by placing ice cubes or crushed ice in a Ziploc-type plastic bag with a small amount of water. Commercial frozen gel packs are also acceptable but bagged ice is preferred. To avoid frostbite, place a wet washcloth or towel between ice and skin. Use an elastic bandage to hold the ice pack in place. Ice packs should be used for 20 to 30 minutes every 2 to 3 hours.

Ice massage - First freeze water in a paper or Styrofoam cup. Then tear away the top lip of the cup and rub the ice over the injured area for 5 to 10 minutes. Ice massage works very well for overuse injuries.

When you first apply ice, you will feel coldness, then burning. Then, after several minutes, the area will become numb. Stop using ice if skin becomes too painful or turns white.

Potential Adverse Effects

If ice packs are put directly on the skin and left too long, frostbite is a risk. Frostbite can cause the skin and tissue underneath (muscles, nerves, and fat) to be injured, either temporarily or permanently. Certain parts of the body (including the elbow, the knee and the foot) are more susceptible to frostbite because they don't have as much padding or insulation. Take extra notice of diminished skin sensitivity, numbness or color change over these sensitive areas and discontinue treatment immediately if they occur.

Contraindications

- **Do not use for acute asthma (over lungs)**
- **Do not use for acute cystitis (over bladder)**
- **Do not use if you are aggravated by cold (cold urticaria, Raynaud's syndrome/phenomenon, etc.)**
- **Do not use over skin infections**

Resources

1. Hayes, K.W., *Manual for physical agents*. 4th ed. 1993, Norwalk, Conn.: Appleton & Lange. p. ix, 169.
2. MD Consult, *Patient Handouts*. 2002. <http://www.mdconsult.com>
3. Mellion, M.B., *Team physician's handbook*. 3rd ed. 2001, Philadelphia: Hanley & Belfus.