

<p><b><u>Cold Therapy</u></b> For the <i>acute</i> stage of an injury. Typically the first 0 – 6 weeks.</p>	<p><b><u>Heat Therapy</u></b> For <i>subacute</i> (weeks 7 – 12) and <i>chronic</i> (greater than 12 weeks) injuries.</p> <p>[A 'flare up' of a subacute/chronic injury would indicate the <i>acute</i> therapy protocol].</p>
<p><b><u>Application</u></b> Commercial cold pack Treatment time – 15-20 minutes Application: Dampen a towel and wrap over a cold pack. Place over injured or painful area. Reapply as needed. (Eg. 20 minutes ice on, 20 minutes ice off, repeat as often as possible).</p> <p>Ice massage</p> <ol style="list-style-type: none"> <li>1. Freeze water in a small paper or Styrofoam cup (Fill cup about ¾). Freeze several at once to save time.</li> <li>2. After water is frozen, peel off the bottom 1/4 of the cup. Gently and carefully rub the edges of the ice to eliminate sharp edges.</li> <li>3. Apply ice to area to be treated, quickly moving ice in circular or back-and-forth motions.</li> <li>4. Continue ice massage 5-7 minutes.</li> <li>5. The feeling will be initially cold, then burning, and then achy, then numb, at which point it is time to stop.</li> <li>6. It is normal for the area to appear red after the treatment. Keep Ice moving QUICKLY to avoid frostbite injury.</li> </ol>	<p><b><u>Application</u></b> If you choose to use a heating pad or paraffin bath at home please follow the product instructions carefully. Using a warm whirlpool or bath is excellent because it allows full or partial immersion of the region being treated.</p> <p>Treatment time – 15-20 minutes (varies according to the heating application used). If you use heat over an area too long, a phenomenon known as rebound vasoconstriction occurs, lessening or even reversing the effects of the treatment. Less heat, applied more often, is better.</p> <p>If mottling (a blotchy discoloration of the skin) occurs, <b>stop</b> the treatment immediately. This is a warning that the temperatures being used are too high and burns could result.</p>
<p><b><u>Contraindications</u></b> Cold therapy is contraindicated for certain conditions including but not limited to: patients allergic to cold, Raynaud's disease, rheumatoid conditions, and conditions in which there is a loss of sensation/numbness in the area to be treated.</p> <p>It is recommended that before you apply cold therapy at home, you do the <b>Wrap Test</b>. The Wrap Test consists of wrapping the treatment area with a towel that has been dipped in ice water. Leave on for one minute, and then check skin color. The area should not be mottled and no hives should appear.</p> <p>Be certain <b>NOT</b> to apply ice more than 20 minutes. Prolonged use of ice may trigger reactions in the tissues further aggravating the injury.</p>	<p><b><u>Contraindications</u></b></p> <ul style="list-style-type: none"> <li>• Acute injuries</li> <li>• Over Arterial Insufficiency or dilated veins</li> <li>• Over impaired sensation</li> <li>• Bony prominences</li> <li>• Bleeding tendency/Hemorrhage</li> <li>• High fevers/T.B.</li> <li>• Pregnancy</li> <li>• Acute dermatologic conditions</li> <li>• After ointments or lotions have been applied</li> </ul>
<p><b><u>Local effects</u></b> Vasoconstriction Reduction in inflammation Decreased pain Decreased muscle spasm</p>	<p><b><u>Local effects</u></b> Decrease pain Decrease muscle spasm Increased elasticity of tissues Removal of metabolic wastes</p>

1. Lockenour, John D. (2009). Superficial Heat Therapies [PowerPoint slides]. Retrieved from file.
2. Starkey, Chad. Therapeutic Modalities. 3rd Edition. F A Davis Co. March 30, 2004.
3. Christensen, K.D. Physiotherapy and Rehabilitation Guidelines for the Chiropractic Profession. [www.chiro.org](http://www.chiro.org). Retrieved October 11, 2010 from <http://www.chiro.org/LINKS/GUIDELINES/REHABILITATION.shtml>