

# HEAT vs. ICE

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If you or your child sustains a soft tissue injury (muscle, ligament, tendon, fascia, nerve) commonly known as a sprain or a strain, or a bone injury, it may be hard to determine which is the best course of treatment. Here are a few tips to follow.

## GUIDELINES

*In general, cold and hot packs may be applied for 15-20 minute intervals.*

*Do not apply cold or heat to a desensitized area (e.g., a region that was previously frostbitten, affected by diabetes or nerve injury).*

*Never sleep on a hot or cold pack. You can get burned by either. After an acute (new) injury, apply ice for the first 24-72 hours.*

**Benefits of Cold Therapy** Reduces pain and swelling. Temporarily reduces local bloodflow. Cold applications are commonly used for management of pain and inflammation from strains / sprains, bursitis, acute arthritis and contusions. WHEN IN DOUBT-ICE IT.

### **Ice Packs / Ice Massage**

In order to avoid the sudden cold shock feeling when applying an ice pack, place a towel over the region before applying the ice. **Follow the 20min ON/20min OFF rule.**

Ice massage involves applying ice directly to skin over the injured area. The cooling effect will occur in four stages, referred to as —CBAN—. First, it will feel *cold*, then *burn* a bit, followed by *aching* and finally it becomes *numb*. After the numbness occurs, continue to ice for approximately one minute. The entire process should take approximately 7-15 minutes.

**Benefits of Heat Therapy** Increases blood flow temporarily. Promotes local muscle relaxation / sedation. Increases muscle flexibility/pliability, cellular activity. Allows larger amounts of oxygen and healing nutrients to the area.

### **Hot Packs/Wraps**

Hot packs are commonly used to relieve pain and stiffness from chronic arthritis and muscle tension. We recommend using moist hot packs, rather than a dry heating pad. Moist heat is less dehydrating to the skin and seems to penetrate deeper than dry heat. **Do not apply heat to an acute (new) injury (under 48 hours).** Although it feels good when applied, heat may increase inflammation, pain, swelling and underlying tissue damage.

The "**RICE**" principle is widely used in treatment of injuries (Rest, Ice, Compression, and Elevation). **Rest** Reduce or stop using the injured area for 48 hours. **Ice** Put an ice pack on the injured area for 20 minutes at a time, 4 to 8 times per day. **Compression** May help reduce the swelling. These include, wraps, braces, air casts and splints. **Elevation** Raise injured area above heart for periods of 5-10 minutes at a time.

### **ALWAYS CONSULT A DOCTOR IF THERE IS ANY QUESTION**

*It is important to note that topical lotions (Biofreeze, Prossage, Sombra) do not elicit the same physiological responses as cold and hot packs. These liniments are not substitutes for hot/cold packs.*



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