

# HEAT THERAPY

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## What is heat therapy used for?

Heat can reduce muscle spasms, reduce joint stiffness, and make soft tissue more limber. Heat can be used to help loosen tight muscles and joints during a warm-up period before exercise. For example, you may put moist hot packs on tight leg muscles before running, or on your shoulder before throwing, or on tight neck or back muscles.

## When should I use heat?

Use heat for still muscles and joints when you are trying to make them more limber. Do not use heat in the first few days after an injury or while your injury has any swelling because heat increases blood flow and can worsen swelling.

## How should I use heat?

Moist heat is more effective than dry heat because it penetrates more deeply, which increases the effect on muscles, joints, and soft tissue. Use it for 15 to 20 minutes or longer if recommended by your health-care provider.

Moist heat from towels soaked in hot water or warmed in a microwave are useful, but the towels usually lose their heat within 5 to 10 minutes. Commercial moist heat packs are more convenient and provide longer therapy. Some commercial heat packs are designed to fit specific parts of your body. Hot tubs or whirlpools are also useful. Ultrasound, which can be applied by therapists and athletic trainers, uses high-frequency sound waves that provide warmth and promote circulation.

Heat creams and ointments are popular but don't provide heat very deeply into muscle tissue. The massaging effect of putting the cream on is helpful. Avoid getting these creams into your eyes or on sensitive skin.

## Can there be any harmful effects from heat therapy?

Heat increases the blood flow to an injury and can worsen swelling. Heat packs that are too hot or left in place too long may cause burns.

# ICE THERAPY

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## Why is ice used for injuries?

Ice is used after an injury to reduce swelling and decrease pain. Ice decreases blood flow to the injured tissue and reduces inflammation.

## When should I use ice?

Ice should be used for the first 2 to 3 days after an injury or until the swelling goes away. For instance, if you sprained your ankle 5 days ago and it is still swollen, you should continue to use ice.

Some injuries come from overuse. For example, you may have pain in your knees after running or in your elbow after playing golf or tennis. You should use ice after doing the activity that causes the discomfort.

## How should I use ice?

You can make ice packs by placing ice cubes or crushed ice in a Ziploc-type plastic bag or you can use a commercial frozen gel pack. To avoid frostbite, do not put an ice pack directly on your skin. Instead, place the ice pack over a wet washcloth or towel. Use an elastic bandage to hold the ice pack in place. Ice packs should be used for 20 to 30 minutes every 3 to 4 hours.

To do ice massage, first freeze water in a paper cup 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.

## Can there be harmful effects from ice therapy?

If ice packs are put directly on the skin and left too long, frostbite may occur. The skin and tissue underneath (muscles, nerves, and fat) may be injured, either temporarily or permanently. Certain parts of the body (including the elbow, the knee, and the foot) can be injured by cold more easily because they don't have as much padding or insulation.

If you have nerve, vascular, or skin problems ask your healthcare provider if you should use ice packs.