

Heat Illness - Exercising in the Heat

What are heat illnesses?

When exercising in very hot or humid weather your body can become overheated and problems such as heat cramps, heat exhaustion, or heatstroke may occur.

How do they occur?

During exercise your body produces heat and your temperature rises. Your body has ways of cooling itself naturally, one of which is by sweating. When the sweat evaporates, it cools your skin. When the temperature is too hot or when there is too much humidity, sweating may no longer cool your body enough to keep your temperature from rising to dangerous levels. If your temperature goes above 104 degrees Fahrenheit, your body can lose the ability to cool itself.

Becoming dehydrated can also lead to heat illness.

What are the symptoms?

As your body gets hotter and is unable to cool down, symptoms progress. First, you may become dehydrated and get heat cramps. If not treated, your symptoms could become more severe and you could eventually develop a more serious problem, such as heat exhaustion or heatstroke.

Symptoms of heat cramps:

- ▶ cramping or spasming of muscles during or after exercise.

Symptoms of heat exhaustion:

- ▶ rising body temperature
- ▶ dizziness
- ▶ weakness
- ▶ nausea
- ▶ vomiting
- ▶ muscle aches
- ▶ headaches
- ▶ increased sweating.

Symptoms of heatstroke:

- ▶ body temperature of 104 degrees F or higher

- ▶ no sweating
- ▶ confusion and disorientation
- ▶ erratic behavior
- ▶ agitation
- ▶ seizures
- ▶ coma
- ▶ injury to body organs.

How are they diagnosed?

Your health care provider will examine you and ask you about your symptoms.

How are they treated?

HEAT CRAMPS:

Heat cramps are treated by drinking a lot of fluids, massaging the cramped area, and stretching the cramping muscles. Heat cramps may improve more rapidly if you drink a sports drink that contains salt and other electrolytes, rather than water.

HEAT EXHAUSTION AND HEATSTROKE:

It is important that any exercising athlete with heat/exhaustion or heatstroke immediately stop any activity. Follow the first aid procedures for heat exhaustion and heatstroke:

- ▶ Remove the person from the heat. Either bring the athlete inside or put him or her in the shade. Immediately cool the person down.
- ▶ He or she can be wet down with moist towels or a spray bottle and fanned.
- ▶ The person may be placed in a cool tub or packed in ice until his or her body temperature is below 102 degrees Fahrenheit.
- ▶ Have the person take in fluids, either by mouth or through a vein (intravenously). If the person cannot sip fluids, medical personnel may administer intravenous fluids in a first aid station or a hospital.

A person with heatstroke needs to be brought to a hospital for further treatment and checked for organ damage. Heatstroke may cause damage to the kidneys, heart, lungs, muscles, liver, intestines, and brain.

How can I prevent heat illness?

It is very important for you to accustom yourself gradually to exercising in the heat. In hot or humid conditions, exercise early in the morning or later in the day.

It is very important to drink lots of fluids and avoid dehydration. Thirst or the lack of it is not an accurate indication of dehydration. You may lose up to 2 quarts of water for every hour that you exercise. It is a good idea to drink 2 cups of water about 30 minutes before exercising. While you are exercising, stop every 20 minutes and drink a cup of water.

If you are exercising for more than 1 hour, a sports drink may be useful before and during exercise. Sports drinks contain salt and potassium that is lost

through sweating. It is important to avoid fluids that contain caffeine or alcohol because they will cause your body to lose more fluid through urination.

To be sure that you are drinking enough fluid during exercise, weigh yourself before and after your workout. If you have lost weight you have become dehydrated and need to drink more. Your urine should be light-colored. If it is dark and concentrated, you need to drink more.

Wear loose fitting, light colored clothes. If you take medications, talk to your health care provider to see if these medications could make problems in the heat worse. Most importantly, if you feel ill while exercising in the heat, **STOP EXERCISING.**