STOP SPORTS INJURIES

SPORTS TIPS

HEAT ILLNESSES IN SPORTS

Heat-related illness and death are on the rise. Heat stroke, a severe form of heat-related illness, is one of the three leading causes of death in athletes and likely the leading cause among athletes in July and August. Yet heat illness is largely preventable.

WHY DO HEAT ILLNESSES OCCUR?

When an athlete exercises, the body's temperature is elevated and the body sweats to cool itself down. During this process, body fluid as well as critical electrolytes are lost. If the body isn't replenished with fluids and electrolytes, dehydration may occur and increase the risk of a heat illness such as heat stroke.

HEAT ILLNESS

WHAT ARE THE SYMPTOMS OF HEAT ILLNESS?

Some symptoms include:

- Chills
- Dark colored urine
- Dizziness
- Dry mouth
- Headaches
- Thirst
- Weakness

If heat illness progresses, more serious symptoms such as difficulty breathing, body temperature increasing to dangerous levels, muscle cramps, nausea, and tingling of the limbs—and even death—may occur.

HOW CAN HEAT-RELATED ILLNESSES BE PREVENTED?

The most effective treatment for heat-related illnesses is prevention, including:

- Proper training for the heat
- Fluid replacement before, during and after exertion
- Appropriate clothing—light colored, loose fitting and limited to one layer
- Early recognition via direct monitoring of athletes by other players, coaches and medical staff
- Monitoring the intensity of physical activity appropriate for fitness and the athlete's acclimatization status
- If possible, having an athletic trainer on site during events and practices to properly prevent and treat heat illnesses

At the beginning of a strenuous exercise program or after traveling to a warmer climate, an athlete should initially limit the intensity and duration of exercise and then gradually increase it during a period of 7-14 days to allow time for the body to adjust to the new climate and environmental conditions. Athletes with respiratory, gastrointestinal or other illness should be evaluated before exercise, as these conditions increase the risk of heat illness.

WHEN SHOULD AN ATHELETE HYDRATE?

Hydration should begin before the exercise period. Drinking 16 ounces of water or a sports drink is recommended one hour before exertion. Hydration should continue with 4-8 ounces of fluid every 15-20 minutes as long as exertion continues.

The type of fluid replacement depends on the duration of the event. Plain water is adequate for events lasting less than one hour. However, for events that last more than one hour or multiple bouts of exercise in the same day, the replacement fluid should contain carbohydrates, sodium and potassium, which are standard components of commercial sports drinks.

Weighing oneself before and after activity provides good feedback on the level of hydration. If the athlete is lighter after an activity, then it is likely a fluid deficit has occurred and it's necessary to replace the weight loss by drinking more during the next practice to approximate sweat losses. An athlete who loses more than two percent to three percent of body weight during exercise may be at a point of compromising performance and physiological function. If the athlete gains weight after an activity, then the quantity of rehydration fluid during activity should be reduced.

HOW CAN HEAT ILLNESSES BE TREATED?

When you see any signs of heat illness or heat stroke, you may be dealing with a life-threatening emergency. Have someone call for immediate medical assistance while you begin cooling the individual at risk.

Treatment tips include:

- Getting the athlete to a shaded area.
- If it is heat stroke, cool the athlete rapidly using cold water immersion. If immersion is not available you may use spray from a hose, cold water sponging or placing cold towels over the entire body.
- Monitoring body temperature.
- Providing cool beverages if possible (i.e., if the athlete does not have altered consciousness).
- Getting medical assistance as soon as possible.

Heat exhaustion is a form of heat illness that can develop after several days of exposure to high temperatures and inadequate or unbalanced replacement of fluids.

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