

Heat Stroke

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The prevention of thermal injuries during warm weather exercise is very important. Exposure to heat can cause problems that quickly lead to medical emergencies. A person's natural defense mechanism is to sweat and tire quickly when exposed to heat. When the athlete pushes beyond these natural defenses the body's internal temperature rises, creating a potentially life threatening situation.

Hyperthermia, or overheating of the body, occurs when the body's rate of heat production is greater than its ability to dissipate heat. As one exercises for prolonged periods in a warm environment, dehydration occurs which decreases the body's blood volume. There may not be an adequate volume of circulation blood to carry heat from exercising muscles to the skin, where the heat can be released- and, at the same time, to carry oxygen to the exercising muscles. Reduced blood-flow to the skin will allow an increase in the body's temperature, and will impair athletic performance. Reduced blood-flow to exercising muscles will limit oxygen to the working muscles causing painful muscle contractions, called heat cramps. Later stages of heat problems include: abdominal cramps, dizziness, fatigue, exhaustion, and eventually collapse. These more serious signs of heat exhaustion may include shock, as the circulatory system begins to fail; this stage is life threatening.

It is not within the realm of this article to discuss treatment of the athlete experiencing heat stroke, but rather, to learn how to avoid it. Exercise should be avoided during the warmest times of the day and when the humidity is high. Dehydration can be minimized by drinking cool water just before exercise and every 15 minutes during exercise. If any of the above symptoms are exhibited, rest in a cool place and do not resume activity. Don't ignore signs and symptoms of heat stress. A mild case of heat stress can rapidly progress to heat stroke which is a medical emergency.

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