

## Heat Cramps

### Cause

Excessive loss of bodily fluids from sweating.

### Signs & Symptoms

Involuntary muscle contractions or cramping, usually in the calf but may occur elsewhere. In severe cases, cramping will occur in multiple places due to excessive loss of fluid and sodium.

### Treatment

- Replacement of fluids
- Stretching of the involved muscle
- Application of ice over cramping muscle(s) in conjunction with stretching
- Replace sodium

## Heat Collapse (Syncope)

### Cause

Rapid fatigue when exercising in high temperatures.

### Signs & Symptoms

Weakness, faintness, especially after exercising or standing in the heat.

### Treatment

- Activate the emergency plan
- Place athlete in a cool and shaded area
- Elevate the legs above the head
- Monitor vital signs (see Module 3)
- Replenish athlete's fluids if the athlete is conscious and coherent

## Heat Exhaustion

### Cause

Inadequate replacement of fluids.

### Signs & Symptoms

An athlete will have these symptoms:

- Headache
- Weakness
- Pale skin
- Cool, clammy skin

- Confusion/disorientation
- Profuse sweating
- Nausea
- Dizziness
- Rapid weak pulse
- Core body temperature of 98-104 degrees F

## Heat Exhaustion (cont'd)

### Treatment

- **Activate emergency plan.**
- Remove excess clothing from athlete
- Move athlete to a cool and shaded area and reduce body temperature by fanning and placing ice or ice bags in contact with her body
- Replace the fluid in the athlete if she is able to drink

## Heat Stroke

### Cause

Severe rise in temperature caused by failure of the body's cooling mechanisms. **This is a life threatening condition!**

### Signs & Symptoms

- Altered mental function with possible collapse and loss of consciousness
- Hot red skin
- Not sweating or no longer sweating
- Rapid strong pulse
- Shallow breathing
- Core body temperature approximately 104 degrees F

## Heat Stroke (cont'd)

### Treatment

- **Activate emergency plan**
- Lower body temperature as quickly as possible by fanning and placing ice towels or ice bags in the groin, neck, and armpit—areas where major blood vessels are located

- Move athlete to a cool and shaded area, remove equipment and clothing, ensure proper breathing
- Immerse athlete in ice water, a particularly effective means to lower body temperature and save lives
- Monitor vital signs