Heat-Related Illness and Young Athletes

Playing It Safe in Hot Weather

Living and playing in Central Florida means hot days and high humidity — and an increased risk for dehydration, heat stroke, heat exhaustion and heat syncope (fainting). The best defense against these potentially life-threatening heat-related illnesses is a game plan you can put into action quickly if needed.

Dehydration

Dehydration, or water loss, can lead to dangerous changes in blood electrolyte levels (such as sodium and potassium). If these signs of dehydration develop, take a time-out for a water break:

- Mild symptoms: thirst, dry mouth, muscle cramping — take a break and rehydrate.
- More severe symptoms: weakness, dizziness, fainting — take a break and rehydrate and make sure you fully recover before considering returning to physical activity.

Game Plan: Rehydration

- Encourage drinking water, electrolyte replacement drinks or sports drinks until it is necessary to urinate.
- If nausea or vomiting occurs, intravenous (IV) rehydration at an urgent care center or emergency department may be needed.
- If urine is dark yellow, continue rehydrating.
- If an athlete is confused or unusually sleepy (lethargic) or does not urinate within 12 hours, seek emergency medical care.

When to Hydrate and How Much

During physical activity in hot weather, try to schedule water breaks roughly every 20 minutes. In rare cases, drinking too much can actually be dangerous, but this typically only occurs when someone has been exercising for a few hours. In these instances when young athletes are exercising and rehydrating for several hours, try to limit the amount of fluid to around 34 fluid ounces per hour for teens and around 14-16 fluid ounces per hour for children ages 12 and younger.

Heat Stroke, Heat Exhaustion and Heat Syncope (Fainting)

When a young athlete is overheated, it can be a life-threatening situation. That’s why it’s important to recognize the signs and symptoms of a heat-related illness and move quickly to cool and rehydrate with fluids.

Heat stroke occurs when the body’s temperature exceeds 104°F (40°C) and can no longer cool itself. It is the most serious and severe type of heat-related illness and can result in brain damage and even death. For any sign of heat stroke, call 911. Signs of heat stroke include:

- seizure (unresponsive, shaking arms and legs)
- unconsciousness
- confusion
- lack of sweating (hot, dry skin)
- rapid pulse
- rapid breathing

Heat exhaustion is less severe than heat stroke and emergency treatment is typically not required. It should, however, still be taken seriously with the athlete resting, rehydrating and ideally being moved to a cooler or shady area to recover. Signs of heat exhaustion include:

- increased thirst
- profuse sweating
- lightheadedness on standing
- cramps
- headache
- weakness
- poor coordination
- nausea/vomiting

Heat syncope (SYNC-uh-pea) is fainting due to a hot environment. A young athlete with heat syncope should recover immediately after falling to a horizontal (lying down) position. If an athlete remains unconscious or confused, treat the condition as heat stroke and call 911.

Game Plan: Cooling an Overheated Player

For any signs of heat stroke call 911. To quickly cool an overheated player:

- Move the athlete to the shade or an air-conditioned space (under a tree, inside a house, building or car).
- Remove all unnecessary clothing.
- Consider placing the athlete on their side to maximize the surface area of the body that is exposed to the air and to help prevent aspiration if they vomit.
- If available, apply ice packs to the athlete’s neck, armpits and groin regions.
- Circulate air across the athlete’s skin using an electric fan or manual fanning.
- Use a wet cloth or spray mister to keep skin and hair moist.
- If the player begins to shiver, reduce the cooling efforts.
- If the athlete is conscious and alert enough to safely drink, then rehydrate with water, electrolyte replacement drinks or sports drinks.

Did You Know?

Antidepressant medications and antihistamines such as Benedryl® (diphenhydramine) and Claritin® (loratadine) increase the risk for heat-related illness.

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