Policy Area: Environmental Considerations	Subject: Heat
Title of Policy: Heat Related Illness	Effective Date: 9/1/2024
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Heat Related Illness

Prevention:

Wet Bulb Globe Temperature (WBGT) is the gold standard for measuring heat stress. WBGT uses temperature, humidity, wind speed, sun angle, and solar radiation to calculate its final value. When an on-field measurement can be made, that reading will be used to guide activity modifications. When an on-field measurement is not able to be made, staff may use the number reported by the Perry Weather system and add 2.0°F to the reported temperature. This temperature is added to the reported temperature due to the height of the Perry Weather measurement device. The Perry Weather data is accessible to the public at https://brsoccer.org/burbank-weather .

Alert Level	WBGT Reading	Recommendations
Black	>92.0°F (33.4°C)	No outdoor training, delay training until cooler WBGT reading, or cancel training
Red	90.1-91.9°F (32.2-33.3°C)	Maximum of 1 hour of training with 4 separate 4-minute breaks within the hour. No additional conditioning allowed.
Orange	87.1-90.0°F (30.5-32.2°C)	Maximum of 2 hours of training with four separate 4-minute breaks, OR a 10-minute break every 30 minutes of training.
Yellow	82.2-87.0°F (27.8-30.5°C)	Three separate 4-minute breaks each hour, OR a 12-minute break every 40 minutes of training.
Green	<82.1°F (27.8°C)	Normal activities. 3 separate 3-minute breaks each hour of training, OR a 10-minute break every 40 minutes.

Rest breaks should include the following.

- No activity
- Shade
- Access to water
- Ice towel when WBGT measurement is above 86°F

When WBGT is above 86°F a cold water-immersion station will be readily available. This will include a tub filled with water in a shaded area, appropriate thermometry to assess core temperature, and adequate ice to cool the tub in the instance it needs to be used to treat a patient. A tarp or PolarPod and access to water may be used as an alternative to a tub.

When WBGT is above 86°F water refill stations should be made available to all participants.

Competition Considerations: When the WBGT rating is above 88°F there must be 1 rest break added at the midpoint of each half of play. When the WBGT measurement is in the orange or red alert category, 2 rest breaks should be added to each half. More breaks may be added if agreed upon between staff, coaches, and referees.

If the coaches, referees, or other members associated with a competition or practice session decide to not follow the provided recommendations, they are assuming the risk associated with their decisions as it relates to heat illness and their team, staff, and spectators.

Heat Acclimatization:

The heat acclimatization period is defined as the first 14 days of the season. The goal of the heat acclimatization period is to progressively increase the intensity and duration of physical activity. The first 2-3 weeks of the season typically present the greatest risk of exertional heat illness. During the first two weeks, the athletes should not participate in activities for more than two hours per instance. BRSC Team Camp is scheduled for 2 hours per day to meet this standard.

Exertional Heat Illness

Heat Stroke

Definition:

Heat stroke is the most serious heat-related illness. It occurs when the body can no longer control its temperature: the body's temperature rises rapidly, the sweating mechanism fails, and the body is unable to cool down. When heat stroke occurs, the body temperature can rise to 106°F or higher within 10 to 15 minutes. Heat stroke can cause permanent disability or death if the person does not receive emergency treatment.

Signs and Symptoms:

- Confusion, altered mental status, slurred speech
- Loss of consciousness (coma)
- Hot, dry skin or profuse sweating
- Seizures
- Core body temperature ≥105°F
- Fatal if treatment delayed

Initial Management:

- Activate emergency action plan.
- Prepare for cold water immersion.
- Determine vital signs.
- Begin ice water immersion.
- Submerge as much of the body as possible with ice water.
- Vigorously circulate water.
- Determine vital signs at regular intervals.
- Fluid administration.
- Continue cooling until core body temperature ≤101.9°F.
- Remove patient from cold water immersion.
- Transfer to a nearby medical facility.

Return to Activity:

- Clearance from physician.
- Progressive return to sport.

Heat Exhaustion

Definition:

Characterized by the presence of excessive fatigue with minor cognitive changes while performing physical activity.

Signs and Symptoms:

- Excessive fatigue
- Syncope or collapse
- Minor cognitive changes
    - Dizziness
    - Headache
    - Confusion
- Pale skin
- Dehydration
- Diarrhea
- Light headedness
- Staggering
- Core body temperature <105°

Initial Management:

- Remove excess clothing and equipment.
- Move the patient to a cool or shaded area
- Determine vital signs at regular intervals
- Begin cooling with ice towels/bags and/or fans
- Place patient in a supine position with feet elevated
- Submerge with ice water or rotate ice towels every 2-3 minutes
    - Vigorously circulate water.
- Fluid administration.
- Continue cooling until core body temperature ≤101.9°F or patients symptoms resolve
- Remove patient from cold water immersion.

Return to Activity:

- The patient should not return to activity same day

Heat Syncope

Definition:

Heat syncope is a fainting (syncope) episode or dizziness that usually occurs when standing for too long or suddenly standing up after sitting or lying. Factors that may contribute to heat syncope include dehydration and lack of acclimatization.

Signs and Symptoms:

- Fainting
- Dizziness
- Light-headedness

Initial Management:

- Sit or lie down in a cool place
- Rest with legs elevated
- Slowly consume fluids

Return to Activity:

- May return to activity same day
- If this becomes recurrent, patient should be referred to a physician

Heat Cramps

Definition:

Heat cramps usually affect workers who sweat a lot during strenuous activity. This sweating depletes the body's salt and moisture levels. Low salt levels in muscles cause painful cramps. Heat cramps may also be a symptom of heat exhaustion.

Signs and Symptoms:

- Muscle cramps
- Muscle pain
- Muscle spasm

Initial Management:

- Drink water and have a snack or drink that replaces carbohydrates and electrolytes every 15-20 minutes
- Seek further medical evaluation if cramps do not subside within 1 hour

Return to Activity:

- Can return to activity once symptoms subside

Heat Rash

Definition:

Heat rash is a skin irritation caused by excessive sweating during hot, humid weather.

Signs and Symptoms:

- Red clusters of pimples or small blisters
- Usually appears on the neck, upper chest, groin, under the breasts, and in the elbow creases

Initial Management:

- Work in cooler, less humid location if possible
- Keep the rash area dry
- Apply powder to increase comfort

Return to Activity:

- No activity restrictions

Rhabdomyolysis

Definition:

A condition where the skeletal muscle begins to break down rapidly, often due to short bursts of high-intensity exercise. This causes the contents of the skeletal muscle cells to be dispersed into the extracellular fluid and circulatory systems.

Signs and Symptoms:

- Muscle weakness
- Myalgia
- Local swelling
- Myoglobinuria

Initial Management:

If rhabdomyolysis is suspected, the emergency action plan should be activated. The patient should be provided a normal isotonic saline solution by EMS for fluid resuscitation.

Return to Activity:

Follow physician direction following clearance to begin return to sport. Progressive increase in exercise and intensity should be followed before fully returning to participation.

Return to Activity:

The graded return to activity will be individualized to each player. Any BRSC player that suffers a concussion must have a physician/approved healthcare provider clearance prior to starting the graded return to activity and should have a written physician/approved healthcare provider clearance prior to being permitted for full competitive play without restriction. Per Louisiana state law, an appropriate health care provider is defined as a physician (MD or DO as defined in LS 37:1262(2)), a licensed nurse practitioner, licensed physician assistant, or a licensed psychologist who is trained in neuropsychology or concussion evaluation and management. There should be 24 hours between each step of the progression where symptoms do not increase or return. Modifications to this timeline may come from the direction of the treating physician. If this cannot be achieved, the patient will remain at the same step or go to the previous step until it can be completed without the exacerbation or return of symptoms.

Graded Return to Activity Template:

Stage 1: Twenty minutes of light cardiovascular activity; walking or stationary bike. NO resistance training. Light activity; <70% of Heart Rate Max (HRM).

Stage 2: Twenty to thirty minutes of mild cardiovascular activity. Light resistance training can begin; body weight resistance exercise (push-ups, lunges) with minimal head rotation. Moderate activity;<85% HRM

Stage 3: Participate in a sport specific, non-contact training session for 45-60 minutes.

Stage 4: Participate in a full, noncontact training session.

Stage 5: Participate in a full training session, contact must be included in the training session. No heading the ball during this stage.