



Heat Index Protocol

Date	Revision No	Description of Change	Prepared By
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1.0 Introduction

These guidelines were developed to help staff members, members, volunteers, and administrators increase the safety and performance of corps member activities in hot weather. Members who are physically active in hot weather can be at risk for heat illnesses. The good news is that heat illnesses can be prevented and successfully treated.

Members sweat less than adults. This makes it harder for Members to cool off. Parents and coaches must make sure that Members take it slow to be sure they can get used to the heat and humidity gradually.

There are other reasons why a member may become ill from a heat illness. Those who have a low level of fitness, who are sick, or who have suffered from dehydration or heat illness in the past should be closely watched. A medical professional such as a certified athletic trainer (ATC) should be on site to monitor the health and safety of all participants during games and practice, especially when it is very hot and humid.

2.0 Dehydration

Members get dehydrated if they do not replace body fluids lost by sweating. Being even a little dehydrated can make a member feel bad and participate less effectively. Dehydration also puts Members at risk for more dangerous heat illnesses.

Signs and Symptoms

- Dry mouth
- Thirst
- Being irritable or cranky
- Headache
- Seeming bored or disinterested
- Dizziness
- Cramps
- Excessive fatigue
- Member not able to run as fast or play as well as usual

Treatment

- Move member to a shaded or air-conditioned area
- Give member fluids to drink



“When can I play again?”

A member may be active again as soon as they are symptom-free. However, it’s important to continue to watch the member.

3.0 Heat Cramps

Heat cramps are a mild heat illness that can be easily treated. These intense muscle spasms usually develop after a member has been exercising for a while and has lost large amounts of fluid and salt from sweating. While heat cramps are more common in Members who perform in the heat, they can also occur when it’s not hot (for example, during ice hockey or swimming).

Members who sweat a lot or have a high concentration of salt in their sweat may be more likely to get heat cramps. Heat cramps can largely be avoided by being adequately conditioned, getting used to the heat and humidity slowly, and being sure a member eats and drinks properly.

Signs and Symptoms

- Intense pain (not associated with pulling or straining a muscle)
- Persistent muscle contractions that continue during and after exercise

Treatment

- The member should be given a sports drink to replace fluid and sodium losses.
- Light stretching, relaxation, and massage of the cramped muscles may help.

“When can I play again?”

A member may be active again when the cramp has gone away and he or she feels and acts ready to participate. You can help decrease the risk of recurring heat cramps by checking whether the member needs to change eating and drinking habits, become more fit, or get better adjusted to the heat.

4.0 Heat Exhaustion

Heat exhaustion is a moderate heat illness that occurs when a member continues to be physically active even after they start suffering from ill effects of the heat, like dehydration. The member’s body struggles to keep up with the demands, leading to heat exhaustion.

Signs and Symptoms

- Member finds it hard or impossible to keep playing
- Loss of coordination, dizziness or fainting
- Dehydration
- Profuse sweating or pale skin
- Headache, nausea, vomiting or diarrhea
- Stomach/intestinal cramps or persistent muscle cramps

Treatment

- Move member to a shaded or air-conditioned area
- Remove any extra clothing and equipment



- Cool the member with cool water, fans, or cool towels (replace towels frequently)
- Have member lie comfortable with legs raised above heart level
- If the member is not nauseated or vomiting, have them drink chilled water or sports drink
- The member's condition should improve rapidly, but if there is little or no improvement, take the member for emergency medical treatment

"When can I play again?"

A member should not be allowed to return to play until all symptoms of heat exhaustion and dehydration are gone. Avoid intense practice in heat until at least the next day, and if heat exhaustion was severe, wait longer. If the member received emergency medical treatment, they should not be allowed to return until their doctor approves and gives specific return-to-play instructions.

Staff should rule out any other conditions or illnesses that may predispose the member for continued problems with heat exhaustion. Correct these problems before the member returns to full participation in the heat, especially for activities with equipment.

5.0 Exertional Heat Stroke

Heat stroke is a severe heat illness that occurs when a member/s body creates more heat than it can release, due to the strain of exercising in the heat. This results in a rapid increase in core body temperature, which can lead to permanent disability or even death if left untreated.

Signs and Symptoms

- Increase in core body temperature, usually above 104 degF/40 degC (rectal temperature) when the member falls ill
- Central nervous system dysfunction such as altered consciousness, seizures, confusion, emotional instability, irrational behavior or decreased mental acuity

Other possible indicators include:

- Nausea, vomiting or diarrhea
- Headache, dizziness or weakness
- Hot and wet or dry skin
- Increased heart rate, decreased blood pressure or fast breathing
- Dehydration
- Combativeness

Treatment

If there is no on-site medical personnel:

- Call emergency medical services for immediate transport to the nearest emergency medical facility. Begin cooling the member while waiting for and during transport to the emergency facility.

If there are on-site medical personnel:

- Locate medical personnel immediately. Remove extra clothing or equipment. Begin aggressive whole-body cooling by immersing the member in a tub of cool water. If a tub is not available, use alternative cooling methods such as cool water, fans, ice, or cool towels (replaced frequently), placed over as much of the body as possible.



- Call emergency medical services for transport to the nearest emergency medical facility.

“When can I play again?”

No member who has suffered heat stroke should be allowed to return until their doctor approves and gives specific return-to-play instructions. Parents should work with the member's doctor to rule out or treat any other conditions or illnesses that may cause continued problems with heat stroke. The member should return to physical activity slowly, under the supervision of an ATC or other qualified health care professional, especially for sports with equipment.

6.0 Tips for Parents

- Before your member starts participating, they should have a physical examination that includes specific questions about any history of heat illness.
- Tell corps administration about any history of heat illness.
- Make sure your member is properly hydrated before they head out the door to a camp or rehearsal. Members should have their own one-gallon water jug.
- Make sure corps administration has your emergency contact information.
- Check that your member's corps has an emergency action plan.

7.0 Tips for Staff

- Be aware of temperature and humidity levels. Change practice length, intensity, and equipment use as the levels rise.
- It should be easy for Members to drink fluids during practice, and you should remind them to drink regularly. Fluid breaks should be scheduled for all practices and become more frequent as the heat and humidity levels rise.
- Every athletic organization should have an emergency action plan for obtaining emergency medical services if needed.
- Always have contact information for parents available.

8.0 Staff: How Much Should Your Member Drink When Active?

- Before activity in the heat, record your member's body weight. (Remember if your member has already been exercising in the heat, they may already be dehydrated.)
- Weigh your member again, after the activity is over.
- Compare your member's pre-activity body weight to their post-activity body weight.

If post activity weight is less than pre-activity weight, your member is not drinking enough fluids while active. A loss of as little as 1 percent of body weight can cause a decrease in performance. Because scientists have proven that Members replace less of their fluid losses when drinking water, you may want to offer a flavored sports drink to increase the amount of fluid your member consumes.

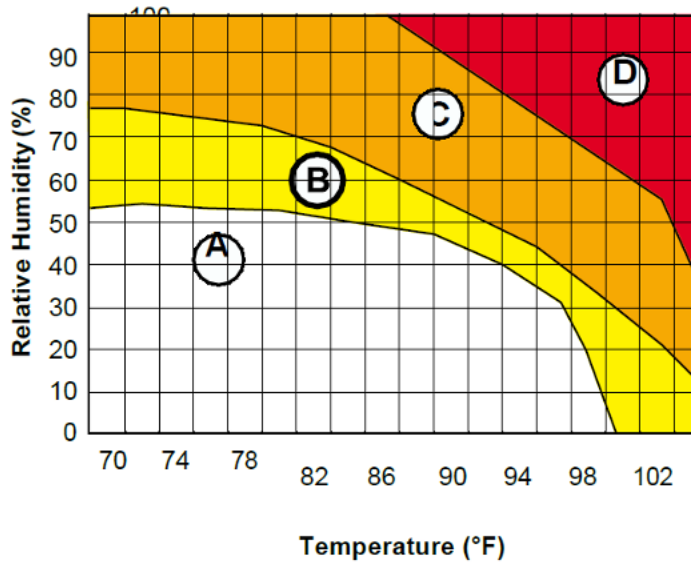
9.0 Activity Guidelines

Fluid breaks should be scheduled for all practices and become more frequent as the heat and humidity levels rise.



Add 5 degF to the temperature between 10:00 am and 4:00 pm from mid-May to mid-September on bright, sunny days.

- A. Members should receive a 5-10 minute rest and fluid break after every 25 to 30 minutes of activity.
- B. Members should receive a 5-10 minute rest and fluid break after every 20 to 25 minutes of activity. Members should be in shorts and t-shirts.



- C. Members should receive a 5-10 minute rest and fluid break after every 15 to 20 minutes of activity. Members should be in shorts and t-shirts only.
- D. Cancel or postpone all outdoor practices. Practice may be held in an air-conditioned space.

This document was adapted from *Inter-Association task force on exertional heat illnesses consensus statement*. June 2003. National Athletic Trainers' Association. The full document can be obtained at <https://www.nata.org/sites/default/files/inter-association-task-force-exertional-heat-illness.pdf>