

HYDRATION

It can make or break performance. To keep your athletes from getting dehydrated, here is what they need to know.

WHAT GOES OUT MUST COME BACK IN

Depending on intensity, athletes can lose between 1 and 4 pounds of water per hour when working out.



Youth athletes should drink at least 10-16 ounces of water about 15-30 minutes before their game or practice.



Drink water throughout the day to keep hydrated prior to practices or games



For every pound lost during exercise, drink three cups of fluid in order to rehydrate the body.



Replenish electrolytes

THE PERFORMANCE KILLER

Dehydration symptoms to watch out for:

Headache	Dry mouth and thirst	Decreased output of urine	Dry skin	Lightheadedness, dizziness, sleepiness	Exhaustion	Disorientation and lack of focus	Fever	Hyperventilation	Diarrhea, vomiting	Loss of consciousness
MILD										
SEVERE										

WHEN AND WHAT TO HYDRATE WITH

- BEFORE** - Cold water
- DURING** - Electrolyte-packed sports drink or water
- AFTER** - Chocolate milk or protein shake

DID YOU KNOW?

Painful muscle cramps can be prevented by staying hydrated.



5 HACKS TO PERFORM BETTER IN HEAT

Don't let the heat affect the intensity of your athlete's performance, or worse, lead to something more serious such as heat stroke.



WHAT TO TELL YOUR PLAYERS:



REALIZE WHEN IT'S TIME TO BREAK

If you feel dizzy, weak or exhausted, take 20 and slowly build your intensity back up.

★ PRO TIP:

Want to cool down quickly? Rest in the shade and try placing a cold towel on your head.



WATCH OUT FOR YOURSELF AND YOUR TEAMMATES

HEAT SYNCOPE:

Getting lightheaded or fainting during exercise

HEAT EXHAUSTION:

Inability to continue exercise because of weakness or fatigue

EXTERNAL HEAT STROKE (EHS):

Central nervous system dysfunction and body temperature at or above 104 degrees



IT'S IN WHAT YOU WEAR

Stay cool by wearing loose fitting, light colored clothing and minimize the amount of equipment worn during a workout.

★ PRO TIP:

Do outside conditioning earlier (before 10 a.m.) or later in the day (after 5 p.m.).



SPORTS DRINKS VS. H2O

Drink water before your workout. Drink water during activity and add sports drinks during intense exercise lasting longer than 60 minutes.

★ PRO TIP:

When conditioning outside, keep drinks in a cooler so they can be nice and cold for when you need them.



TRAIN EARLY IN THE SEASON

Acclimating to hot temperatures is important if you want to make sure your performance is all-star ready.

★ PRO TIP:

Get out of the air conditioning and into the heat. Slowly build the intensity of your workouts as the summer progresses to get you in prime condition for the start of the season.

HOW TO RECOGNIZE AND TREAT THE VARIOUS EXERTIONAL HEAT ILLNESSES

	HEAT SYNCOPE	HEAT CRAMPS	HEAT EXHAUSTION
RECOGNITION	Refers to a fainting or lightheadedness episode	Painful, localized muscle cramps and may feel like they are “wandering” throughout the cramping muscle Usually visible and the muscle will feel hard	The inability to continue exercise in the heat from either weakness or exhaustion May feel hot, tired, sweating a lot, weak, dizzy and don’t feel able to continue exercise
CAUSES	Lack of heat acclimatization and poor fitness Blood pools in the lower extremities, reducing the heart’s ability to provide enough circulation	Combination of fatigue, dehydration and electrolyte losses through sweat Lack of heat acclimatization and poor fitness	Caused by either excessive fluid losses or electrolyte losses Dehydration causes less blood to be available for the working muscles and the skin to give off heat
TREATMENT	Lay the athlete on the ground and raise the legs about 12 inches This helps blood go back to the heart to normalize blood pressure	Rehydration with water and sport drinks Some light stretching or massage with ice on the cramping muscle	Remove the athlete from activity and put him or her in a shaded/cool area Lay the athlete on the ground and raise the legs about 12 inches Replenish lost fluids Moderate cooling methods, such as ice towels, misting fans or cold water immersion
PREVENTION	Heat acclimatization	Arrive to practice well-hydrated and having consumed some salt with the last meal Minimize fluid losses during exercise and replace lost fluids post exercise Heat acclimatization	Heat acclimatization Arriving to practice/competition well-hydrated Minimizing fluid losses during activity and replace fluid losses after exercise
RETURN TO PLAY	The athlete should feel better within a few minutes, and full recovery is usually quick (within hours) Return to activity once the athlete feels better and is adequately hydrated	Once cramps resolve Without replacing lost fluids, risk of additional cramps is high	Should not return to activity on the same day Complete recovery usually takes 24-48 hours and must focus on rehydration and rest

IMPORTANT

If athletes need to go to the hospital, have them cool off first and transport them second. Rapid cooling onsite while waiting for transport to the hospital is a key to survival of an exertional heat stroke without medical staff.

EXERTIONAL HEAT STROKE (EHS)

What is exertional heat stroke (EHS)?

Exertional heat stroke occurs when the body reaches temperatures at or above 104 degrees and there is obvious central nervous system (CNS) dysfunction. CNS dysfunction can include any of the following: dizziness, collapse, confusion, irrational behavior, hysteria, aggressiveness, combativeness, disorientation, seizures and coma.

It is a medical emergency.

What is the cause of EHS?

When the body is unable to give off heat fast enough, heat is stored and core body temperature continues to rise.

How do I treat someone suspected of having EHS?

If EHS is suspected in an athlete, immediate action is imperative in order to maximize the chance of survival. Exertional Heat Stroke is a life threatening emergency.

EMS (9-1-1) should be called immediately. Aggressive cooling of the entire body should be done to lower the athlete's core body temperature as fast as possible. Whole-body, cold-water immersion is the best treatment for EHS because it cools the body the fastest. If this is unavailable, then any attempts to cool the body through continual dousing of water (shower, running a hose over the entire body while covering the body with iced towels) should be done before EMS arrives to take the athlete to the hospital.

How do I prevent EHS?

There are multiple ways in which you can help prevent the occurrence of EHS:

- Having your athletes undergo a period of heat acclimatization
- Encouraging athletes to come to practice hydrated
- Allowing athletes unlimited access to hydration during activity
- Modifying practice when environmental conditions become extreme (allowing additional rest/hydration breaks, reducing the intensity of practice, reducing the time of practice and reducing the equipment worn during practice)
- Practicing at an intensity that is appropriate for the fitness level
- Encourage your athletes to speak up when they do not feel well - create a culture where this is considered smart



PRACTICE MODIFICATION



Plan your practices to help acclimate your athletes to the heat.

Preseason Heat Acclimation
Recommendations should not exceed 1 practice per day.

Practices interrupted by inclement weather or heat restrictions should only resume once conditions are safe. Modify work-to-rest ratio in extreme environmental conditions or reschedule to cooler parts of the day.

PRACTICE DAYS 1&2



HELMETS ONLY

NO FULL CONTACT DRILLS

PRACTICE DAYS 3&4



HELMETS & PADS ONLY

NO FULL CONTACT DRILLS

Intensity of drills and activities should slowly and gradually increase as part of the acclimatization period.

PRACTICE DAYS 5&6



FULL PADS
(optional)

FULL CONTACT DRILLS ALLOWED

Practice Time Guidelines & Recommendations

AGE	PRACTICE LENGTH (MINUTES)	PRACTICES PER WEEK
Age 5+	30-60 min	1-2 practice(s)
Age 8+	60-90 min	1-3 practice(s)
Age 10+	75-105 min	2-3 practices
Age 12 thru Pre-HS	90-120 min	2-3 practices

Note: This chart is strictly concerned with the frequency and duration of practice as it relates to age.

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