

NNLL “Hydration Education” Program

North Natomas Little League (NNLL) takes athlete safety seriously. As part of NNLL’s “culture of safety,” beginning in 2015, all Little League parents/guardians (herein referred to as “parents”) are required to submit a signed attestation acknowledging their understanding of the NNLL Hydration Education Program.

NOAA’s National Weather Service

Heat Index
Temperature (°F)

Relative Humidity (%)	80	82	84	86	88	90	92	94	96	98	100	102	104	106	108	110
40	80	81	83	85	88	91	94	97	101	105	109	114	119	124	130	136
45	80	82	84	87	89	93	96	100	104	109	114	119	124	130	137	
50	81	83	85	88	91	95	99	103	108	113	118	124	131	137		
55	81	84	86	89	93	97	101	106	112	117	124	130	137			
60	82	84	88	91	95	100	105	110	116	123	129	137				
65	82	85	89	93	98	103	108	114	121	128	136					
70	83	86	90	95	100	105	112	119	126	134						
75	84	88	92	97	103	109	116	124	132							
80	84	89	94	100	106	113	121	129								
85	85	90	96	102	110	117	126	135								
90	86	91	98	105	113	122	131									
95	86	93	100	108	117	127										
100	87	95	103	112	121	132										

Likelihood of Heat Disorders with Prolonged Exposure or Strenuous Activity

Caution
 Extreme Caution
 Danger
 Extreme Danger

NNLL’s “Extreme Caution” Heat Alert

North Natomas Little League’s heat alert procedures are based on Heat Index Values. The Heat Index, sometimes referred to as the “apparent temperature,” is given in degrees Fahrenheit. The Heat Index is a measure of *how hot it really feels* when relative humidity is factored in with the actual air temperature.

A heat alert will be issued by NNLL on any day when practices or games are scheduled and the expected Heat Index is forecasted to reach or surpass the “Extreme Caution” threshold listed in the NOAA National Weather Service Heat Index chart above (i.e., when the “apparent temperature” is expected to reach 91 degrees or higher). These days are identified by NNLL as “Hydration Education” days.

Even during cool temperatures, an athlete can dehydrate quickly. The risk of heat illness rises with every apparent temperature increase. It is imperative that players are kept as hydrated and cool as possible. In the event the “Extreme Caution” threshold is expected to be reached, the following precautions should be taken to prevent dehydration, hyperventilation and heat stroke.

League Precautions

On “Hydration Education” days, the League will take the following precautions to ensure the safety of all its members:

- The League will maintain on its website a dedicated page for the “Hydration Education” Program. This page will be used to post Program information, guidelines, FAQ, tips for proper hydration, and the League’s mandatory requirements surrounding the Hydration Education Program.
- On “Hydration Education” days, the League will send out a SMS message at the beginning of the day reminding SMS subscribers to properly hydrate before the start of that day’s game or practice, following NNLL’s Strategy for Proper Hydration. The League will also post a message on the NNLL Facebook fan page with this reminder.
- In the extremely rare event that the Heat Index Value is forecasted to reach the “Extreme Danger” zone during a scheduled game or practice time, the League will postpone all games and practices. (The “Extreme Danger” threshold is reached when the apparent temperature reaches 126 degrees.)

Manager/Coach Precautions

On “Hydration Education” days, Managers should take the following precautions to ensure the safety of all participants:

- Provide water coolers in the dugouts. Managers should remind their players to take drinks of water before going on and when coming off the field.
- During practices, Managers should allow time for water breaks every 15 to 30 minutes.
- If a player looks distressed while standing in direct sun exposure, the Manager will substitute that player and immediately get the player into the shade.
- If a player should collapse as a result of heat exhaustion, 911 shall be called immediately. Get the player to drink water and use the instant ice bags supplied in the first aid kit to cool the player down until the emergency medical team arrives.

Umpire Precautions

On “Hydration Education” days, Umpires should take the following precautions to ensure the safety of all participants as well as their own safety:

- Because of the protective gear they are required to wear, umpires shall follow the same guidelines and recommendations outlined for players throughout this policy.
- Umpires shall keep a close watch on players (particularly, pitchers and catchers), looking for signs of heat illness. Managers will in turn keep a close watch on the umpires.

- If a player looks distressed while standing in direct sun exposure, the umpire will call timeout and ask the Manager to substitute that player and immediately get the player into the shade.
- Umpires, at their discretion, may suspend any game they deem to be too dangerous to continue.

Parent Precautions

On “Hydration Education” days, parents are encouraged to take the following precautions to ensure the safety of their child:

- Parents should encourage their child to take responsibility for his/her own hydration routine.
- Parents should ensure that their child consumes an adequate amount of fluids, beginning first thing in the morning of a game or practice and continuing throughout the day as outlined in the League’s “Strategy for Proper Hydration.” Athletes that are not well hydrated BEFORE they step on the field are already at a loss.
- NNLL recommends the use of sunscreen with an SPF (sun protection factor) of at least 15 as a means of protection against the sun’s damaging ultraviolet rays. For best results, parents should ensure that sunscreen is applied 30 minutes prior to exposure to allow the ingredients to fully bind to the skin. Sunscreen should be reapplied every two hours (or more often if the player is sweating a lot).

Heat Illness – What to Watch Out For

Every year a number of tragedies occur relating to heat stroke and dehydration. Proper hydration as well as recognizing and preventing heat illness are very important topics for all coaches and parents to understand.

Athletes, young and old, increase their risk of heat illness as they become dehydrated. According to the National Athletic Trainers' Association, **it is not uncommon to reach dehydration levels significant enough to place athletes at risk of developing heat illness in as little as one hour of exercise.** Athletes can reach this level even more rapidly if they begin the workout, practice or competition ALREADY DEHYDRATED. It is quite common for many young players to arrive at the game or practice already dehydrated. A full day at school, running around at recess, gym class, not eating or drinking properly throughout the day will all contribute to a child being dehydrated before the game or practice even starts!

Early Warning Signs of Dehydration

Symptoms can include, but are not limited to:

Symptoms		First Aid
HEAT CRAMPS	<ul style="list-style-type: none"> • Cramps or spasms in legs or abdomen • Heavy sweating 	<ul style="list-style-type: none"> • Apply firm pressure or gentle massage to relieve cramps/spasm • Give sips of water; if nausea continues, discontinue water
HEAT EXHAUSTION	<ul style="list-style-type: none"> • Weakness • Cool, pale, clammy skin • Weak pulse • Dizziness • Nausea and vomiting • Fainting 	<ul style="list-style-type: none"> • Move person to a cooler environment • Remove or loosen clothing • Apply cool, wet cloths • Fan or move person to air conditioned room • Offer sips of water; if nausea continues, discontinue water; if vomiting continues seek immediate medical attention.
HEAT STROKE	<ul style="list-style-type: none"> • Altered mental state • Possible throbbing headache • High body temperature (106°F or higher) • Skin may be hot and dry or sweaty • Rapid pulse • Possible unconsciousness 	<ul style="list-style-type: none"> • Heat stroke is a severe medical emergency. Seek immediate emergency medical assistance. Delay can be fatal. • Move person to a cooler, preferably air-conditioned, environment • Reduce body temperature with a water mister and fan or sponging • Use fan if heat index temperatures are below the high 90s • Use extreme caution • If temperature rises again, repeat process • Do NOT give fluids

<http://www.nws.noaa.gov/os/heat>

NLL's Strategy for Proper Hydration

1. Pre-hydrate

Pre-hydrate **before** each game or practice:

- Whenever possible, parents and coaches should encourage players to take responsibility for their own hydration routine.
- "If you're thirsty it's too late!" Kids that are not well hydrated BEFORE they step on the field are already at a loss.
- Players should drink 16 ounces of fluid first thing in the morning of a practice or game.
- Players should drink an additional 8 to 16 ounces of fluid one hour prior to the start of the practice or game.
- Players should drink another 8 to 16 ounces of fluid 20 minutes prior to the start of the practice or game.

2. Hydrate

Hydrate **during** each game or practice:

- Do not hesitate to call 911 for any heat-related illness.
- On hot days, NLL recommends that Managers and Coaches keep wet hand towels in an ice chest that the players can use to cool themselves down. Because of all the gear they wear, this is particularly important for the catchers and umpires.
- Players should have unlimited access to fluids (sports drinks and water) throughout the game or workout.
- Guidelines from the American Academy of Pediatrics (AAP) outline how to keep young athletes prepared for exercise during the hot months of summer:
 - Children aged 9-12 years should drink frequently – 4 to 8 ounces of water every 20 minutes.
 - Teens should drink 13 to 16 ounces of water or sports drink every 20 minutes.
- During practices, managers should run drills in groups so while one group runs, the other group is getting a break.
- All players should drink fluids during water breaks. A lot of players will say that they are not thirsty; however, in many cases by the time they realize that they are thirsty, they are already dehydrated or on their way to becoming dehydrated. Make sure all your players are getting the proper fluids.
- Players should drink during the practice or game to minimize losses in body weight but should not over drink.

3. Re-hydrate

Re-hydrate **after** each game or practice:

- Parents or coaches should weigh players before and after practice. For each pound lost during the workout, an athlete should consume at least 24 ounces of fluid. If this recommended amount of fluid is not consumed, the player must replace 80% of lost weight by next practice to avoid dehydration.
- Players/parents should check the color of the player's urine. If it is a dark, gold color (like apple juice), the player is already slightly dehydrated.

Other Hydration Tips

- Avoid carbonated drinks. They can cause bloating and may decrease the amount of fluid consumed.
- Avoid caffeinated beverages (like tea, cola or Mountain Dew) as they may cause the body to lose body fluids.
- Fluids containing carbohydrates and small amounts of sodium chloride are likely to have more beneficial effects than plain water.
- Drink it, don't pour it. A player pouring fluid over his/her head may feel great, but it won't help restore body fluids or lower body temperature.
- Allow for acclimation – the body's adaptation to a hot environment. Managers and coaches should slowly increase practice intensity and duration over the first two weeks of training. Most cases of heat illness occur in the first 2 to 3 days of training.
- If possible, hold practices in the morning or evening when the weather is coolest.

Frequently Asked Questions

Why is proper hydration important for baseball and softball players?

Heat stroke can kill. As little as 2% dehydration (i.e., a 2% drop in body weight through fluid loss) is associated with impaired performance during stop-and-go sports, such as baseball and softball. Performance measures such as skill, agility, and running have been found to be adversely affected and athletes also have increased feelings of fatigue as they accrue a body water deficit. The negative effects of dehydration on performance are most apparent when athletes are exercising in hot and humid conditions.

What are ways that I can help my Little Leaguer stay healthy through proper hydration on the field?

The first step is to make sure your child begins practice and competition in a well-hydrated state. Researchers have found that many athletes, including youth athletes, show up to practices and games already dehydrated. One simple way to gauge hydration status throughout the day is to monitor urine color. Light yellow (like lemonade) is indicative of proper hydration. Dark yellow or brown (like apple juice) is indicative of dehydration. Clear urine indicates over-hydration so the athlete can cut back on fluid intake.

How do I know if my child is drinking enough fluids?

The best way to determine whether athletes are drinking enough to stay well-hydrated is to weigh them before and after practices and games. Acute body weight changes during a bout of exercise are mostly due to water loss from sweating. Therefore, if a player weighs 100 pounds before exercise and 98 pounds after exercise, this means he or she has lost two pounds (or 2% of his or her body weight) through dehydration. Players should drink enough fluid during practices and games to prevent body weight deficits greater than two percent. It's important that parents educate their children on the ways to self-monitor dehydration, too. If kids know what to watch for, they can keep themselves safe.

Why does my child need to hydrate after games and practices?

Post-exercise rehydration is especially important when there is a short timeframe between the end of one game or practice and the start of the next (e.g., double headers or tournament play).

How prevalent is the dehydration problem in youth sports?

According to the Youth Sports Safety Alliance (YSSA), two-thirds of athletes show up to games and practices significantly dehydrated. Getting behind on fluids during the day before a practice or game not only makes playing sports harder, it compounds the risk of dehydration.

My son does not like to drink plain water. What are some ways that I can ensure he stays healthy and hydrated?

Providing any cool, palatable fluid to encourage drinking is better than not drinking at all. Research has shown that athletes, including youth athletes, drink more of a flavored beverage than water. Flavored water, sports drinks, and juices will all help keep your child hydrated. You can lower the sugar content by diluting them. Some fruits can even provide good hydration (watermelon is 90% water). Sucking on crushed ice in the dugout during breaks can also be an effective way to help cool the body.

Are children more susceptible to dehydration than adults?

Not so long ago, it was thought that children and teens were especially susceptible to dehydration, but according to the American Academy of Pediatrics (AAP), "youth do not have less effective thermoregulatory ability, insufficient cardiovascular capacity, or lower physical exertion tolerance compared with adults during exercise in the heat when adequate hydration is maintained."