How best to hydrate your sporty kid

Saturday morning at my home this past weekend. Three sets of misplaced shin guards. Three new coaches to remember. Three kids running in different directions. And nearly forgotten as we fly out the door… three water bottles. Forget the balls, forget the money for pictures, even forget the coaches' names. But even in this beautiful cool autumn air, don't forget the water bottles to help hydrate your kid.

We are all accustomed to reminding our children to hydrate well during summer sports, but when the weather grows cooler we sometimes let our guard down. Because thirst does not always correlate with dehydration, children often misjudge their own hydration status. Teach your children to recognize headache and nausea as one of the first symptoms of dehydration. If they "just don't feel right ," take a break.

Don't depend on the coach. Learn to recognize when your child needs to rest and hydrate. A mother I met at field hockey Saturday says she can always tell if one of her girls needs a break because a subtle white ring appears around her mouth.

For hydration outside of sports, the best liquids for kids over two years old are skim milk and water. Reserve juice for constipated children or the picky eater who will not eat fruit. Even then, limit juice to once a day. Consumption of sweet beverages multiple times a day encourages a sweet tooth and gives only empty calories. Also, even juice diluted with water has the power to decay teeth- just ask my nephew who had over ten cavities filled two days ago.

Drink water up to half an hour prior to a sports activity. For young children who only play for an hour or so, water is a good choice for hydration. Enforce drinking approximately

every 20 minutes. For the more competitive players who churn up a sweat, electrolyte replenishers such as Gatorade and Powerade become important. After 20-30 minutes of sweating, a body can lose salt and sugar. At that point, switch to rehydration with electrolyte replenishers. My sister, an Emergency Medicine doctor, tells the story of a young woman played ultimate frisbee all day, and lost a large amount of salt through sweating. Because she also drank large amounts of water, she "diluted" the salt that was still in her blood and had a seizure. If your child plays an early morning sport, start the hydration process the night before so that they don't wake up already behind on fluids.

Avoid caffeine which is found in some sodas, iced tea and many energy drinks. Caffeine tends to dehydrate. Alcohol also dehydrates (think of the copious amount of fluid lost in urine after consumption of beer).

So, before your kid's next sports activity, remember the helmet, remember the shin guards, remember the padding and remember one of the most protective pieces of equipment of all – the water bottle.

Naline Lai, MD and Julie Kardos, MD
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Wake Up, Sleepy-Head, It's Time for School!

With school starting in the next few weeks, many families will have to shift their children from "summer time sleep mode" to "school year sleep mode." Your children will have an easier time if their bedtimes are shifted gradually over the period

of a week or two toward the desired time period. Remember, the average school aged child needs 10-11 hours of sleep at night and even teenagers function optimally with at least 9-10 hours of slumber per night.

Here are some straight forward rules to follow to help ensure good quality sleep for your child:

1) **Keep sleep onset and wake up times as consistent as possible 7 days a week.** If you allow your child to "sleep in" during the weekends, she will have difficulty falling asleep earlier on Sunday night, have difficulty waking up Monday morning, and start off her week over-tired, more cranky and less able to process new information—not good for learning.

2) **Limit or eliminate caffeine intake.** Often teens who feel too sleepy from failing to follow rule number 1 from above may drink tea, coffee, "energy drinks" or other caffeine laden beverage in attempt to self-medicate in order to concentrate better. What many people don't realize is that caffeine stays in your body for 24 hours so it is entirely possible that the caffeine ingested in the morning can be the reason your child can't fall asleep later that night. Caffeine also has side effects of jitteriness, heart palpitations, increased blood pressure, and gastro-esophageal reflux (heartburn).

3) **Keep a good bedtime routine.** Just as a soothing, predictable bedtime ritual can help babies and toddlers settle down for the night, so too can a bedtime routine help prepare the school aged child/teen for sleep.

4) **Avoid TV/computer/ screen time just before bed.** Although your child may claim the contrary, watching TV is known to delay sleep onset. We highly recommend no TV in a child's bedroom, and suggest that parents confiscate all cell phones and electronic toys, which

kids may otherwise hide and use without parent knowledge, by one hour prior to bedtime. Quiet activities such as reading for pleasure, listening to music, and taking a bath, are all known to promote falling asleep.

5) **Encourage regular exercise.** Kids who exercise daily have an easier time falling asleep at night than kids who don't exercise. Gym class counts. So does playing outside, dancing, walking, and taking a bike ride. Of course, participating in a team sport with daily practices not only helps insure better sleep but also promotes social well being.

Getting enough sleep is important for your child's academic success as well as for their mental health. I have had parents ask me about evaluating their child for ADD or ADHD because of his inability to pay attention and then come to find out that their youngster fights bedtime and averages 7-8 hours of sleep per night when he really need 1-2 hours more, or their teen is so over-involved in activities that she averages 6 hours of sleep per night. Increasing the amount of sleep these kids get can alleviate their attention problems and resolve their hyperactivity. Additionally, sleep deprivation can cause symptoms of depression. Just recall the first few weeks of having a newborn: maybe you didn't think you were depressed but didn't you cry from sheer exhaustion at least once?

Unfortunately for children, the older they get, their natural circadian rhythm shifts them toward the "night owl" mode of staying up later and sleeping later, and yet the higher up years in school start earlier so that teens in high school start school earliest at a time their bodies crave "sleeping in." A few school districts in the country have experimented with starting high school later and Grade School earlier and have met with good success with less tired, more productive teens. Unless you live in one of these districts, however, your teens need to conform until they either go to college and

can choose classes that start later in the day or choose a job that allows them to stay up later and sleep later in the day in order to be better in sync with their age specific body rhythms.

Some children seem to get plenty of sleep at night and are still tired during the day. Some medical conditions that interfere with sleep quality include but are not limited to:

- Asthma: kids cough themselves awake multiple times during the night
- Obstructive sleep apnea: children often are obese or have enlarged tonsils and adenoids or have anatomically “floppy” airways. These kids snore and pause their breathing, then rouse themselves in order to start breathing again, multiple times per night.
- Medication side effects
- Psychological conditions such as depression or anxiety
- Illicit drug use

If your child seems to be sleeping enough but still seems excessively tired during and after school, you should consult with your child’s health care professional to look for medical and psychological causes of fatigue. It is always ok to ask your child/teen directly if they feel depressed or anxious. Even if they deny this, they will appreciate your concern and may come back to you later with a more truthful answer. A night time ritual of “tell me about your day” can help kids decompress, help them fall asleep, and keep you connected with your child.

Julie Kardos, MD and Naline Lai, MC

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Bittersweet transitions-surviving the first day of school from daycare to college

It's that time of year again, supply #3 on my back-to-school shopping list, glue sticks, are sold out at the Target down the street. At this time of year, I see many of my patients embarking on their next stage of schooling. Kids I remember starting kindergarten are off to high school. Babies are starting daycare and the teens are starting college. With all of these transitions to independence, the basic rules of daycare drop off still hold:

- Always convey to your child that the transition is a positive experience. You give your child cues on how to act in any situation. Better to convey optimism than anxiety.
- Take your child and place her into the arms of a loving adult- do not leave her alone in the middle of a room.
- Do not linger. Prolonging any tears, only prolongs tears. The faster you leave, the faster happiness will start.
- It's ok to go back and spy on them to reassure yourself that they have stopped crying- just don't let them see you.

Now with that all being said, kick back late at night, after all the school forms have been put away. Whether your child is off to college, off to daycare or off to kindergarten, take

out a glass of wine and listen to the letter I wrote for one of my own children years ago…

My Child,

As we sit, the night before kindergarten, your toes peeking out from under the comforter, I notice that your toes are not so little anymore.

Tomorrow those toes will step up onto to the bus and carry you away from me. Another step towards independence. Another step to a place where I can protect you less. But I do notice that those toes have feet and legs which are getting stronger. You're not as wobbly as you used to be. Each time you take a step you seem to go farther and farther.

I trust that you will remember what I've taught you. Look both ways before you cross the street, chose friends who are nice to you, and whatever happens don't eat yellow snow. I also trust that there are other eyes and hearts who will watch and guide you.

But that won't stop me from worrying about each step you take.

Won't stop me from holding my breath.

Just like when you first started to walk, I'll always worry when you falter.

I smile because I know you'll hop up onto the bus tomorrow, proud as punch, laughing and disappearing in a sea of waving hands. I just hope that at some point, those independent feet will proudly walk back and stand beside me.

Maybe it will be when you first gaze into your newborn's eyes, or maybe it will be when your child climbs onto the bus.

Until then,

I hold my breath each time you take a step.

Love,

Mommy

Naline Lai, MD

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Ouch! Those nasty wasp and bee stings

Ouch! Stung on the scalp.

Ouch! Stung on the hand.

Ouch! Stung on the leg.

Ouch! Ouch! Stung TWICE on the lips.

Those nasty, nasty hornets. During the hot days of August, they become more and more territorial and attack anything near their nests. Today, in my yard, hornets mercilessly chased and attacked a fourth grader named Dan. As everyone knows, you'd rather have something happen to yourself than have something negative happen to a child who is under "your watch." As I rolled out the Slip and Slide, I was relieved not to see any wasps hovering above nests buried in the lawn. I was also falsely reassured by the fact that our lawn had been recently mowed. I reasoned that anything lurking would have already attacked a lawn mower. Unfortunately, I failed to see the basketball sized grey wasp nest dangling insidiously above our heads in a tree. So, when a wayward ball shook the tree, the hornets found Dan.

What will you do in the same situation?

Assess the airway- signs of impending airway compromise include hoarseness, wheezing (whistle like sounds on inhalation or expiration), difficulty swallowing, and inability to talk. Ask if the child feels swelling, itchiness or burning (like hot peppers) in his

or her mouth/throat. Watch for labored breathing. If you see the child's ribs jut out with each breath, the child is struggling to pull air into his/her body. If you have Epinephrine (Epi-Pen or Twin Jet) inject immediately- if you have to, you can inject through clothing. Call 911 immediately.

Calm the panic- being chased by a hornet is frightening and the child is more agitated over the disruption to his/her sense of security than over the pain of the sting. Use pain control /self calming techniques such as having the child breath slowly in through the nose and out through the mouth. Distract the child by having them "squeeze out" the pain out by squeezing your hand.

If the child was stung by a honey bee, if seen, scrape the stinger out with your fingernail or a credit card. Do not squeeze or pull with tweezers to avoid injecting any remaining venom into the site. Hornets, and other kinds of wasps, do not leave their stingers behind. Hence the reason they can sting multiple times.

Relieve pain by administering Ibuprofen (Motrin,Advil) or Acetaminophen (Tylenol).

As you would with any break in the skin, to prevent infection, wash the affected areas with mild soap and water.

Decrease the swelling. Histamine produces redness, swelling and itch. Counter any histamine release with an antihistamine such as Diphenhydramine (Benadryl). Any antihistamine will be helpful, but generally the older ones like Diphenhydramine, tend to work the best in these instances. Unfortunately, sleepiness is common side effect.

To decrease overall swelling elevate the affected area.

A topical steroid like hydrocortisone 1% will also help the itch and counter some of the swelling.

And don't forget, ice, ice and more ice. Fifteen minutes of indirect ice on and fifteen minutes off.

Even if the child's airway is okay, if the child is particularly swollen, or has numerous bites, a pediatrician may elect to add oral

steroids to the child’s treatment.

It is almost midnight as I write this blog post. Now that I know all of my kids are safely tucked in their beds, and I know that Dan is fine, I turn my mind to one final matter: Hornets beware – I know that at night you return to your nest. My husband is going outside now with a can of insecticide.   Never, never mess with the mother bear…at least on my watch.

Naline Lai, MD and Julie Kardos, MD

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Soothing the itch of poison ivy

Recently we’ve had a parade of itchy children troop through our office. The culprit: poison ivy.

Myth buster: Fortunately, **poison ivy is NOT contagious**. You can catch poison ivy ONLY from the plant, not from another person.

Also, **contrary to popular belief, you can not spread poison ivy on yourself through scratching.** However, where the poison (oil) has touched your skin, your skin can show a

delayed reaction- sometimes up to two weeks later. Different areas of skin can react at different times, thus giving the illusion of a spreading rash.

Some home remedies for the itch :

- Hopping into the shower and rinsing off within fifteen minutes of exposure can curtail the reaction. Warning, a bath immediately after exposure may cause the oils to simply swirl around the bathtub and touch new places on your child.
- Hydrocortisone 1%. This is a mild topical steroid which decreases inflammation. I suggest the ointment- more staying power and unlike the cream will not sting on open areas, use up to four times a day
- Calamine lotion – a.k.a. the pink stuff. this is an active ingredient in many of the combination creams. Apply as many times as you like.
- Diphenhydramine (brand name Benadryl)- take orally up to every six hours. If this makes your child too sleepy, once a day Cetirizine (brand name Zyrtec) also has very good anti itch properties.
- Oatmeal baths – Crush oatmeal, place in old hosiery, tie it off and float in the bathtub- this will prevent oat meal from clogging up your bath tub.
- Do not use alcohol or bleach- these items will irritate the rash more than help

The biggest worry with poison ivy rashes is not the itch, but the chance of super-infection. With each scratch, your child is possibly introducing infection into an open wound. Unfortunately, it is sometimes difficult to tell the difference between an allergic reaction to poison ivy and an infection. Both are red, both can be warm, both can be swollen. However, a hallmark of infection is tenderness- if there is pain associated with a poison ivy rash, think infection. A hallmark of an allergic reaction is itchiness- if there is itchiness associated with a rash, think allergic

reaction. Because it usually takes time for an infection to "settle in," an infection will not occur immediately after an exposure. Infection usually occurs on the 2nd or 3rd days. If you have any concerns take your child to her doctor.

Generally, any poison ivy rash which is in the area of the eye or genitals (difficult to apply topical remedies), appears infected, or is just plain making your child miserable needs medical attention.

When all else fails, comfort yourself with this statistic: up to 85% of people are allergic to poison ivy. If misery loves company, your child certainly has company.

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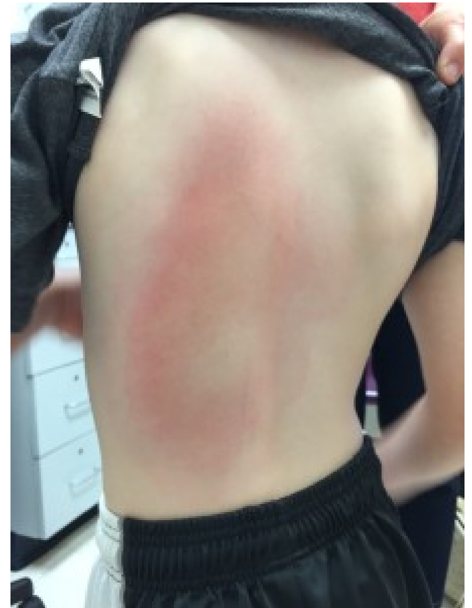
Lyme Disease: What Makes it Tic? Ticks!



As we are in the middle of Lyme disease season here in the Northeastern United states, I thought I should address Lyme disease. I have diagnosed 8 cases so far this summer, seven in my office and one at a picnic, and what struck me in each case was how relieved the parents were to find out how easy it is to treat the disease when it is diagnosed early. It is important to treat Lyme disease in the early phase because this treatment prevents later manifestations of the illness (arthritis, meningitis, etc.).

Lyme disease is spread to people by deer ticks. Any one deer tick that you pull off your child has only a 1% chance of transmitting Lyme disease, but the reason so many people get Lyme disease is that there are an awful lot of deer ticks out there.

In areas where Lyme disease is prevalent (New England and Mid-Atlantic states, upper Midwest states, and California), parents should be vigilant about searching their children's bodies daily for ticks and for the rash of early Lyme disease. Tick bites, and therefore the rash as well, especially like to show up on the head, in belt lines, groins, and axillas (armpits), but can occur anywhere. I shower my kids daily in summer time not just to wash off pool water, sunscreen, and dirt, but also for the opportunity to check them for ticks and rashes.

Most kids do get the classic rash of Lyme disease at the site of a tick bite. The rash most commonly occurs by 1-2 weeks after the tick bite and is round, flat, and typically red. It can have some central clearing. The key is that the rash expands and becomes larger than 5cm. Untreated, it can become quite large as seen in the above photo. The rash does not itch or hurt. This finding is helpful because if you think you are

seeing the primary rash of Lyme disease on your child, you can safely wait a day or two before bringing your child to his health care provider because the rash will continue to grow. The Lyme disease rash does not come and then fade in the same day. In fact, the history of a rash that enlarges over a few days is helpful in diagnosing the disease. Some kids have fever, headache, or muscle aches at the same time that the rash appears.

The second phase of Lyme disease occurs if it is not treated in the primary phase. It occurs about one month from the time of tick bite. Children develop a rash that looks like the primary rash but appears in multiple body sites all at once, not just at the site of the tick bite. Each circular lesion of rash looks like the primary rash but typically is smaller. Additional symptoms include fever, body aches, headaches, and fatigue without other viral symptoms such as sore throat, runny nose, and cough. Some kids get the fever but no rash. Some kids get one-sided facial weakness. This stage is called Early Disseminated disease and is treated similarly to the way that Early Lyme disease is treated.

If your child has primary Lyme disease (enlarging red round rash), the diagnosis is made on clinical presentation alone. **No blood work is needed** because it takes several weeks for a person's body to make antibodies to the disease, and blood work tests for antibody response. In other words, the test can be negative when a child does have early Lyme disease. Therefore, treatment begins after taking a history and performing a visual diagnosis.

The treatment of early Lyme disease is straightforward. The child takes 2-3 weeks of an antibiotic that is known to treat Lyme disease effectively such as amoxicillin or doxycycline prescribed by your child's health care provider. This treatment prevents later complications of the disease. While the disease can progress if no treatment is undertaken, in children there is no evidence of "chronic Lyme disease"

despite claims to the contrary. Once treatment is started, the rash fades over several days. Sometimes at the beginning of treatment the child experiences chills, aches, or fever for a day or two. This reaction is normal but your child's health care provider should be contacted if it persists for longer.

If not treated early, then treatment starts when diagnosis is made during later stages of Lyme disease and may include the same oral antibiotic as for early Lyme but for 4 weeks instead of 2-3 weeks. The most common symptom of late stage Lyme disease is arthritis (red, swollen, painful joint) of a large joint such as a knee, hip, shoulder. Some kids just develop joint swelling without pain. The arthritis can come and go. This stage is prevented by early treatment but is also can be treated with antibiotics.

For some manifestations, IV antibiotics are used. The longest course of treatment is 4 weeks for any stage. Again, children do not develop "chronic Lyme" disease. If symptoms persist despite adequate treatment, sometimes one more course of antibiotics is prescribed, but if symptoms continue, the diagnosis should be questioned. No advantage is shown by longer treatments.

Misinformation about this disease abounds, and self proclaimed "Lyme disease experts" play into people's fears. If you feel that you need another opinion about your child's Lyme disease, the "expert" that you could consult would be a pediatric infectious disease specialist.

For a more detailed discussion of Lyme disease, I refer you to the Center for Disease Control website: www.cdc.gov.

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