



SAFETY TOPIC: HYPONATREMIA

Up until a couple of years ago I hadn't really ever heard of hyponatremia. Then one of our cyclists, who experienced severe cramps at an event heard from the medics that he had hyponatremia. It was time to educate ourselves to be aware of this very dangerous condition. Here is his submittal:

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"I've always thought/read that this condition resulted from drinking too much water, thereby upsetting the sodium/water balance in the blood. This may, in fact, be one of the most common ways to get hyponatremia, but I didn't pay too much, if any, attention to it, as I thought to myself, 'How could I drink too MUCH water? I usually need to push myself to drink more!'

The dictionary definition of hyponatremia is: Abnormally low concentration of sodium ions in blood. Let me explain how it affected me.

I competed in the Hotter 'n Hell 100 race in Wichita Falls, TX on August 27. This 100 mile race starts early at 7 AM, but the pace is furious and the day heats up quickly. I am on pace to drink one bottle of Accelerade (more powerful version of Gatorade) per hour, as well as a GU packet each half hour. Into the third hour, my legs are not feeling as snappy as they should, but I attribute that to the speed and distance covered. With only 10.5 miles left in the race, my front tire flats. I get a replacement wheel from the wheel truck which is following our pack, and as I remount my bike, my left calf cramps! I push through the pain and attempt to rejoin the pack, but to no avail. Riding in the rest of the course, I feel my legs just on the edge of cramping. Once I cross the finish line, both legs start cramping up and I'm helped off of my bike. After sitting for a few minutes, I get up, as I need to return the borrowed wheel and recover mine. I ride around and ask a few different volunteers if they know where the wheel truck is located. No one knows. While lifting my leg over my bike, my right quad cramps severely! Now straddling my bike and the left quad joins in! I'm bent over my bike, locked in pain, and look down at my legs. Two long muscles running down the center of each thigh and sticking out 1.5 - 2 inches and they cramped so hard that they feel like rocks! I'm yelling and four guys who happened to just be walking by grab onto me and my bike. "What do you need?" they ask. "Just get me off my bike," I plead. They lift me off and set me down on the ground. I sit there for a little bit, passing through a short period of dizziness. Medical volunteers take me to the medical tent, where I'm given an IV. Temperature, blood pressure, pulse, and blood salinity tests are done. It is determined that I'm hyponatremic. At least an hour passes, and with test results returning normal values, I'm released.

"How could I have been hyponatremic, as I didn't drink too much water?" I ask myself. Further research by me, and I now understand that drinking too much water is just one method to get hyponatremic. I just chose a different method. I'm a heavy sweater (no, not the woolly kind), so the sodium levels in my blood were getting out of balance because I was sweating out lots of salt and not replacing it along with my liquids.

What have I learned? I must have some form of sodium intake (Gatorade, Powerade, etc. is not enough) during any ride longer than one hour. So what should you do? Educate yourself and stay aware of your body's signals.

For more information try these links:

<http://www.rice.edu/~jenky/sports/salt.html>

<http://www.geo-outdoors.info/hyponatremia.htm>