



Cramping Muscles and Dehydration: Related?

by Andy DeBerry, PCI #667

Denton (TX) Police Department

The articles printed in the *IPMBA News* are informative and helpful, that's true. Sometimes I find myself reading an article and saying to myself, "well yes, that's what I do, too." But we all learn from each other, and we need to share our experiences with others who may not be doing the things that "we" already do. We learn our tactics and styles from our own experiences and that of other public safety cyclists, which is why attending the IPMBA Conference is such a great experience. With that in mind, here is my story.

My shift is 12 hours and I work a district/beat that covers most of our downtown area. I take calls on bike and ride about twenty to thirty miles a day on duty. On my meal break, I'll ride a ten mile loop in uniform, on my police bike. I've never really had that much of a problem doing this and finishing my shift. After my lunch ride, I drink a bottle of Cytomax or Accelerade, or something similar. I also try to stay hydrated during the day, refilling my water bottle several times.

We had a strange August this year in our area of Texas. It started out with temperatures reaching 107 degrees with low humidity (27-40%). We then had a two week period of temperatures around 85-90 degrees with high humidity (65-80%). Then we returned to the 100-degree mark, with high humidity. (I find it very helpful to know the temperature and humidity level for to plan for adequate hydration.)

Ok, story time with Andy.

After riding on duty for about ten hours and getting my lunch ride in on a 100-degree day, I felt some cramping. My next planned stop was a convenience store for some type of electrolytes, glucose, salt or what ever I could find, so I was not too worried about it. However, on the way there, I got a trespassing call. I thought, "Well, I will go take this call real fast." I got to the area, but could not locate my "trespasser", so I thought I would hide out and wait to see if he showed up. Sure enough, he did. By the way, this apartment complex is surrounded by ten-foot wooden fences and an eight-foot chain link fence.

My bad guy notices me closing the distance between us, and he takes off running. He goes over the wooden fence into another complex. I see him go over another fence, now running parallel with me. The bad guy disappears into a third apartment complex. I have another unit west of me so I waited until an officer was able to cover the west side before I went over the chain link fence.

I am all ready to go over the fence in stylish police fashion. But just as I bring my right leg over, my left quadriceps locks down (cramps). Now I am kind of stuck, and praying hard that the cramp will go away enough for me to get over the fence. After a short prayer, the cramp subsides enough to get me back into action. I then bring my left leg over the fence, and my right hamstring cramps. Now I am hanging from the top rail of this chain link fence like I'm doing some type of Olympic gymnastic



routine. A lady in the parking lot is looking at me like I have lost my mind. I want to yell at her to start massaging my legs or go back inside her apartment, because staring at me is not helping. The cramps release their satanic hold on me and I get down from the fence. I find the bad guy, and the foot pursuit is on. I'm thinking "could I have gotten my bike over that fence?" Well, I caught the guy and he went to jail.

This may not be a lesson learned as much as a lesson revisited. We teach diet and nutrition in the IPMBA Police Cyclist Course, so one would think we would be experts at this. Apparently not, so I decided to do more research. I have learned that what happened to me was a "true cramp". "True cramps" are commonly associated with the vigorous use of muscles and muscle fatigue. Dehydration contributes to true cramps. So our answer is yes. Dehydration and cramps go hand in hand.

There were several other factors in play that day. I am sure my glycogen stores, sodium and potassium levels were low. I do not want to get into the scientific/medical terms and draw this into what some find as a boring subject, so I will leave it with a helpful hint/reminder from Andy. Stay hydrated while you are working. The market is flooded with energy drinks, sports drinks and other type of energy bars; find the one that works best for you. Cytomax works ok for me, but I have found that Accelerade keeps me from cramping and seems to work better. But despite all the products out there you still cannot substitute them for water! Water is your main source of hydration. I have heard of people stopping and slamming a Red Bull or a Monster. That's cool and all, but I have found that these types of energy drinks make me feel "hotter" and drain me as far as hydration goes, like my head is on fire.

You need to drink water before you are so thirsty that you just slam a water bottle. Throughout the day, you should drink water constantly. I do not recommend drinking ice cold water as it is not absorbed as well as water that is close to room temperature. I fill my water bottle out of the sink at some stores I stop in and fulfill my role as community officer at the same time.

Stay hydrated, loose and safe. See you in Albuquerque!

Andy joined the Denton Police Department in 1998 and was assigned to bike duty in 2001. He became an IPMBA Instructor in 2003. He leads his shift in arrest and activity and was named a Denton Patrol Officer of the Year for 2008. He can be reached at andrew.deberry@cityofdenton.com.

© 2008 IPMBA. This review appeared in the Fall 2008 issue of *IPMBA News*.