

Eating and Hydrating Before and During an 18 Hour Training Run

Tues 8/14/2017 **18 miles - a training run for the marathon**

I ran 3 times a 6 mile slightly hilly course with a 40 second stop at my house at the end of 6 miles and again at the end of 12 miles. The miles splits were:

1st 6 miles: 10:16, 9:38, 9:51, 9:46, 9:33, 9:15 Average = 9:43

2nd 6 miles: 10:11, 9:52, 9:27, 9:19, 9:07, 8:55 Average = 9:28

3rd 6 miles: 10:00, 9:50, 9:54, 10:07, 9:55, 9:27 Average = 9:52

The temperature at the end of the run was 80 degrees which was a good deal hotter than I thought it was going to be. As a result I did not drink as much as I should have. This made the last 4 miles somewhat difficult. Before running I weighed 127.5 pounds and after I weighed 124 pounds, losing 3.5 pounds. I know from experience that I can lose about 2 pounds during a long run without any problems. So today I should have had about an additional 1.5 pounds (24 ounces) of liquid to make up the deficit. I had 6 ounces of kefir and milk with my breakfast cereal, and 36 ounces of Gatorade and 24 ounces of water, totaling 66 ounces during the run. These 66 ounces plus the 24 ounces I should have drunk yields 90 ounces (or 5 ounces/mile) as the minimum required to efficiently run 18 miles on a hot day. If in a marathon the water stops are every 3 miles then on a hot day I should be drinking about 2 full sized cups of liquid at every stop. On a cool day I know that I only need about 3 ounces per mile. In this case I would need about 9 ounces (about one full sized cup) at every 3 mile water stop.

What about calories? A formula that works for me is $\text{calories} = 300(\text{hours} - 1.3)$, where “calories” is the number of calories I will need to consume before and during the run and “hours” is the amount of time I think I will be running. The number 300 in the formula I found from experience. I weigh roughly 130 pounds. For someone weighing 50% more than me I think the number might be 50% larger or 450. The 1.3 corresponds to 1 hour and 18 min. Notice the formula says I can run for 1 hour and 18 minutes and calories required will be zero. I have written the formula in this way because I know I can get up in the morning and not eat. As long as I drink enough water I can run for a little over an hour using just the energy stored in my body. This is about right for me but it might not be correct for everyone.

I ran for approximately 3 hours today. So $\text{calories} = 300(3 - 1.3) = 510$ calories. How many calories did I actually eat? Breakfast → 200 calories, Gatorade → 200 calories 2 energy gels → 200 calories for a total of 600 calories. So I was fine with the calorie intake because it was more than the calculated 510 calories. An interesting thing to note is the number of calories goes up fairly quickly as the time for the run increases. If I run for 4 hours my formula gives 810 calories and for 10 hours it gives 2610 calories. I always calculate the number of calories required for me to run for long times and carefully plan how I will meet the requirement.