

Runners beware: Too much water can be dangerous

By Keith Mulvihill

NEW YORK, Nov 30 (Reuters Health) - Marathon runners consuming copious amounts of water to avoid dehydration during their 26-mile run should know that too much of a good thing can lead to illness.

Twenty-one runners out of the 5,082 race finishers of the 2000 Houston Marathon developed hyponatremia, a condition in which the sodium concentration in the blood drops because there is too much water in the bloodstream and an inadequate excretion of water in urine.

"This represents the highest incidence of hyponatremia reported following a 26-mile marathon," according to Dr. Jon Divine of the Memorial Hermann Healthcare Organization in Houston, Texas, and colleagues.

Fourteen of these runners had significant hyponatremia and required hospitalization, the researchers report.

Divine and his co-authors presented the results of this study earlier this year at the Joint Annual Meeting of the American Medical Society for Sports Medicine and American Osteopathic Academy of Sports Medicine, held in San Antonio, Texas.

The investigators found that the longer it took runners to finish the marathon, the more likely they were to experience hyponatremia, especially in slower runners with finish times that exceeded 4 hours and 20 minutes.

Excessive exercise and drinking large amounts of water can lead to steep falls in blood levels of circulating electrolytes (salts), which are essential for many body processes. Symptoms of hyponatremia can include fatigue, confusion, dizziness and, in extreme cases, coma.

Exercise itself releases an antidiuretic hormone and slows blood flow to the kidneys--reducing urine output.

"This is a serious condition that causes deaths at many marathons throughout the world," Dr. Lewis Maharam, the medical director of the New York City Marathon, told Reuters Health in an interview.

"We don't know exactly how many runners develop hyponatremia, but as marathons change, it is becoming more common," he said.

In the past, the majority of people who ran marathons were experienced runners, Maharam noted. Now, many of the runners are often novice runners who are primarily interested in supporting the particular charity that is associated with the run, he explained.

"The 'charity-runner' is much more likely to stop at water stations at each mile along the 26-mile route consuming a cup or two of water because they were told they could get dehydrated running the race," Maharam told Reuters Health. "Elite marathon runners on the other hand may consume water only one time during the race."

To strike a healthy balance, Maharam suggests that runners should only drink water when they think they need it, or if they are sweating more than usual, for example, on a hot and humid day.

Maharam also recommends that runners should not consume more than 800 milliliters (about two cups) of water for each hour they are on the course.

Maharam, who is also president of the New York chapter of the American College of Sports Medicine and will be speaking on this topic at their annual meeting this weekend,

notes that women and runners who are on the course for more than 4 hours are at greatest risk for hyponatremia.

In addition, taking nonsteroidal anti-inflammatory pain relievers before or during the race also increases a person's risk for hyponatremia, Maharam warned. "Runners should only take acetaminophen before or during a race," he said.

Lastly, Maharam also advises that runners consume salty food, like pretzels or a salty bagel, as part of their pre-race meal.

While no runners were reported to develop hyponatremia during this month's New York City Marathon, Maharam attributes that to the fact that registrants have to qualify to be eligible to run.

Copyright © 2001 Reuters Limited. All rights reserved. Republication or redistribution of Reuters content is expressly prohibited without the prior written consent of Reuters. Reuters shall not be liable for any errors or delays in the content, or for any actions taken in reliance thereon.