



Getting you to the Finish Line: Hyponatremia

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REMINDER: To reduce coronavirus exposure, get vaccinated, practice social distancing by maintaining at least six feet between yourself and others, wash your hands often, and wear a facemask. To learn more, visit the Advocate Aurora Health COVID-19 Resource Center: www.aah.org/COVID-19

Hyponatremia, a serious but rare condition, has taken the lives of long-distance runners and military personnel. It's important to understand the causes, what happens when the condition is present, and how to prevent it.

Hyponatremia is caused by the rapid consumption of a large quantity of water over a very short period of time. As the fluid is absorbed into the blood stream, the blood sodium level is diluted resulting in abnormally low concentration levels. In response, the body's reaction is to keep things in balance – a rapid movement of fluids crosses the blood/brain barrier. The rapid fluid movement into the brain produces brain swelling which triggers increasingly severe neurological responses ranging from confusion, seizure, to coma and potentially death.

To prevent this condition, it's important to follow a pre, during and post-activity hydration plan that includes electrolytes and sodium, not just water. Guidelines identifying how much you should be drinking vary slightly between The American College of Sports Medicine, National Athletic Training Association and American Dietetics Association. A good summary of the proposed guidelines is:

- Two to three hours pre-exercise: 400ml to 600ml
- During exercise: 150ml to 350ml at regular intervals
- Post exercise: Fluid consumption should be enough to replace fluids lost. The estimate of fluid loss requires a nude pre- and post-run weigh-in.

The bottom line to maintain peak running performance:

- Eat a well-balanced diet with lots of fruits and vegetables
- Monitor weight loss following activity with the goal of replacing lost fluid before your next workout
- Make a plan for hydrating before, during and post-exercise
- Choose an electrolyte drink for when you are really hot and sweaty

If running is causing you pain, Aurora Sports Health offers Free Injury Evaluations. And, if physical therapy is recommended, Direct Access scheduling allows you to start

treatment and begin feeling better right away – check with your insurance to confirm Direct Access coverage. Free injury assessments are easy to schedule at [aurora.org/FreeInjuryEval](https://www.aurora.org/FreeInjuryEval) or scan the QR code.



References:

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