



Danger: Dehydration

Have you ever wondered how much you should drink while exercising? Hydration is a critical component in sports nutrition, and its importance is often underestimated. Adequate hydration allows you to perform better on the court and also decreases your risk of developing heat illness.

As you sweat, you lose water and electrolytes such as sodium, chloride and potassium, which are crucial for the body to maintain fluid balance. According to Mike Bergeron, Ph.D., FACSM, hydration consultant to the WTA Tour, "In warm to hot conditions, most adult athletes lose between 1-2.5 litres of sweat during each hour of intense competition or training." That's a lot of sweating! Choose your fluids wisely to replace what is lost during sweating.

Start Off Hydrated

Fact: Many tennis players of all ages and abilities begin play or training already dehydrated.

Can you imagine starting a match with a broken string? You wouldn't dream of it! Think about hydration....why would you choose to begin your game at a disadvantage by walking on the court dehydrated?

Factors contributing to dehydration include inadequate fluid replacement; consumption of tea, soda, alcohol, or coffee; hot/humid weather conditions; illness and long periods of travel.

Myth: Use thirst as a predictor for when you should drink.

False – thirst is a poor indicator for dehydration! When you're thirsty, you are already over 2% dehydrated. The key to replacing fluids is to DRINK REGULARLY. Research from the Gatorade Sports Science Institute in Georgia, USA has shown that dehydration of only 1-2% of body weight (0.7-1.4kg for a 68kg athlete) can negatively influence performance. If more than 3% of body weight is lost during activity, there is a greater risk of developing serious heat illness.

If you are dehydrated, the heart has to work harder as blood volume decreases, the body has trouble regulating temperature and muscle endurance and strength decreases.

With all of these effects, how well can you perform on the tennis court?

Watch out for these common signs of dehydration:

- Headache
- Dark colored (yellow) urine
- Decreased energy
- Loss of coordination
- Dizziness
- Muscle cramps

Sports Drink and Water: The Ideal Team

To replenish fluid lost through sweating, it's critical to drink both sports drink and non-carbonated water. Drinking water

alone is not adequate for proper rehydration. Sports drinks will replenish lost electrolytes and provide carbohydrates, which give you additional energy on court.

When selecting a sports drink for play, look for:

- Combination of simple carbohydrates (glucose, sucrose and glucose polymers). High levels of fructose can cause stomach upset or bloating and has a slower rate of absorption.
- 14-30g carbohydrate per 500ml sports drink.
- Electrolyte emphasis should be on sodium and chloride.



Players like Sharapova know that adequate hydration is crucial to success.

When should you drink?

Before: Begin drinking sports drinks and non-carbonated water 1-2 hours before exercise.

During: One litre of sports drink and 500ml of non-carbonated water should be consumed for every hour of play. During every break in your match or every 15-20 minutes during practice, drink 6-8 gulps of fluid (alternating between water and sports drink).

After: Start rehydrating and consuming carbohydrates within 30 minutes following activity. When optimally hydrated, urine should be pale yellow in color (straw colored).

Too Much of a Good Thing

It is possible to be over-hydrated, or to suffer from "water intoxication". With high levels of sweating, if too much water (and not enough sports drink) is consumed, then sodium levels become too low. Low blood sodium levels, or hyponatremia, can lead to fatigue, nausea, cramping, or even seizure or coma.

When to Add Salt

If your blood pressure is normal, try adding salt to your diet or sports drink if you: 1) have a history of heat illness 2) sweat excessively or 3) are playing in hot & humid conditions.

To increase your salt intake, try adding some of these options to your diet:

- Salt your food or sports drink (add 1/8 tsp. to 500ml sports drink)
- Salted crackers or pretzels
- Tomato juice
- Soy sauce

Stay one step ahead of the game by staying hydrated. The best tennis players are those who recover faster and who can go the distance on the court without running out of steam (or fluids!) ●