



Eat and Drink Like the Pros

By Page Love, MS, RD, LD, CSSD, USPTA

How do the pros do it? After working with and observing the BB&T Atlanta Open tournament held in Atlanta in the hottest month of the year, as well as traveling with the ATP and WTA Tours over the past five years, I have seen it all ... from struggles to maintain hydration on the court, to checking urine color, to trying to decipher what is in a foreign sport food for safety. Even the pros don't fully know how to eat for optimum performance and can fall prey to the diet trend du jour, from gluten free to other extremes like sodium avoidance.

So what does the research tell from observing professional tennis hydration patterns? Drink, drink, drink all day ... get your body ready for sweating on the court and prepare for those fluid losses to prevent heat illness. Many pros do not hydrate adequately. In fact, the average male player only drinks between 1–2 liters of hydrating fluids off court per day (anything decaf-wise can count here). Most elite players need double that, 3–4 liters per day off court to meet full hydration needs. This is why we see heat illness every year at the BB&T Atlanta Open!

We now have the male pros studying their urine color. We ask them to aim for “lemonade” colored urine during the day and before they go onto the court for match play. The latest guideline for hydrating on court is to drink to meet your thirst needs, but this obviously can vary from player to player. Most male players need 1–2 liters per hour, minimum, to meet their sweat loss needs. At the BB&T Atlanta Open, one of my sport dietitian roles is to weigh players before and after they play to help them learn their sweat rates. Less than 10 percent of the players actually check their weights before and after play. A kilogram of sweat lost is worth 1 liter of fluid that needs to be replaced during the several hours after play and definitely by morning of the next tournament day. Most of the heavy sweaters I checked at the recent BB&T Atlanta Open were losing 2–3 kg per match in sweat. Sports beverages and water are the best replacements for sweat losses. And, almost 100 percent of ATP players use both on court, with the most popular sport beverages being Gatorade and Powerade.

SALT, SALT, SALT YOUR DIET

If you are a fit tennis player with low to normal blood pressure, playing year-round with no heart health issues and you are a heavy sweater to boot, you need salt! Some male players can lose upwards of 10,000 mg of salt per day in sweat during training and competition. But, most professional male players are not consuming the amount of salt that they are sweating out. In fact, after asking that exact question over the past four years of working the BB&T Atlanta Open, less than 30 percent of players are regularly using table salt. I encourage players to use table salt at all of their meals. I also encourage them to consume higher sodium content foods such as pickles, salted crackers, pretzels and nuts. I encourage tomato juice with their daytime food consumption or in the recovery period after play. Consuming soups with meals is another great way to both hydrate and better meet your salt needs. One current myth that some players have fallen prey to is to drink pickle juice on court when they are cramping. The amount of salt in pickle juice is so concentrated that researchers find that this is too much salt to take in during play. Instead, using higher sodium sport beverages like Gatorade High Sodium or adding a small restaurant packet of salt to a 0.5 L sport beverage bottle is preferred. If you have high blood pressure, check with your physician before making a significant shift in your sodium intake. Most tennis players with high blood pressure still need more sodium in their diets than their sedentary counterparts. Another common myth is to drink coconut water on court ... this is a high potassium beverage, not a significant source of sodium. Coconut water acts more in the stomach as fruit juice would, taking a longer time to empty out and get to the muscles, so wait until you are off the court to try this.

WHAT ABOUT FUELING?

If any of you caught the Nutrition Issue of *Tennis Magazine* this past January, you may have read about the importance of adequate carbohydrate in the tennis player's diet. Most tennis play-

ers, males or females, have fallen prey to the low-carb diet craze, the latest version being to avoid gluten (the protein in wheat products). Djokovic's latest book on his diet has become very popular and it touts the gluten-free approach he uses. Very few people actually have a true medically tested allergy to gluten. But, more and more people, athletes included, feel they have a sensitivity to gluten. They report symptoms such as bloating and fatigue after eating common gluten-containing foods such as pasta, bread, pizza, cereals, crackers and pretzels. Unfortunately, there are no definitive tests to determine sensitivity, but many players choose to avoid these foods and report feeling better. I am finding an increasing number of players avoiding gluten, but with the most common side effect of having more fatigue by doing so. So, if you're avoiding gluten, make sure that you consume gluten-free high complex carbohydrate energy alternatives like potatoes, rice, legumes and other starchy vegetables at all meals.

Most elite players need 1–2 cups of complex carbs (such as pasta, rice, potatoes, etc.) at all three major meals and snacks in the form of energy bars or trail mixes. When I work with players who are trying to lose weight, I recommend at least 1 cup of complex carbohydrate per meal. Most normal weight male players need closer to 2–3 cups per meal. Most high carb energy bars like PowerBar, Clif and Gatorade brands are excellent pre-match snacks, and recovery choices that also help meet a competitive tennis player's carbohydrate needs. Most competitive players use an energy bar these days. The key is to know which ones meet your sport nutrition needs. High carb bars are best one to two hours before play and on court. Slightly higher protein bars are best after play because the amount of protein is too dense to digest right before play and too heavy to consume on court. Newly popularized carbohydrate/electrolyte gels are also becoming a common second to energy bars with professional players, because they are easier to digest than bars and can be used closer to match time and during the match, plus give you more electrolytes to meet sweat losses! My advice here is to avoid caffeinated gels, which may increase risk of heat illness and stomach upset on court.

WHAT ABOUT RECOVERY?

I have seen vast improvement in recovery, the after match, nutrition practices of professional players over the past five years as well. Much sport nutrition recovery research shows the benefits of doing three practices after matches: post-hydrating to meet sweat volume fluid loss needs; adequate sodium in recovery to



meet sweat sodium loss needs; and adequate refueling of both carbohydrate and protein to meet energy needs and speed muscle recovery for play the next day. I have seen the ATP players improve all of these practices. This has been a huge focus I have had with these players because of the heat in Atlanta and because many players play both a singles and doubles matches in the same day. The same challenge exists for most tournament players, and even more so for junior tournament players. A couple of simple recommendations are to continue to drink a sport beverage as you are leaving the court, as this helps meet both fluid and sodium needs. Then within 30 minutes after a match eat a recovery energy source like an energy bar with both carbohydrate and protein or a smoothie with dairy protein and fruit or shake with protein. Even a pint of chocolate milk will meet your sport nutrition needs at this time.

Another service we offered the professional male players this year was to analyze their sport nutrition practices around a single bout of play. I chose to use the GSSI Fuel Habits Survey available to any player on Gatorade Sport Science Institute website, gssi.com. This allowed me to analyze in real time their sport nutrition practices and provide them with a score on how they did with their fueling for recent match play. I found that most players did a great job with their pre-match hydration and carbohydrate fueling, but many of the pros did not do as well with sodium intake in recovery or timing their re-

covery fueling appropriately. Many players wait too long to eat or drink their recovery nutrition food/beverage choices. Also about half of the players did not have appropriate well-hydrated urine color post-play and less than half of the players checked their body weight for hydration status.

The ATP plans to continue their sport nutrition coverage of professional tennis players' sport nutrition practices this upcoming year at the BB&T Atlanta Open to help them continue to fight the Atlanta heat.

Take-home winning sport nutrition match points:

- Hydrate with sodium sources, such as sport beverages.
- Pre-fuel with carbohydrates and fuel with carbs on court if needed in longer matches.
- Recover quickly with water, sodium, carbohydrates and protein. ●

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