

Dehydration- it won't be your third shot that drops

by Diane Cleaver

In 1984, following a long battle for inclusion, the women's marathon took place in the Los Angeles summer Olympics. It was a warm and muggy day which ranged from the high 60's to the low 90's. One image from the finish of that marathon still lingers in my mind as Gabriela Andersen age 39 entered the stadium with just a few hundred meters to go. Her muscles were cramping, and she began to stumble and weave. She appeared to be stiff and one arm was limp. She did not want anyone to touch her because it would disqualify her. She did finish and after a brief hospitalization was okay. Unbelievably, this was a case of simple dehydration.

Now pickleball is not a marathon, but most of us in Sun City are not 39 and the Texas heat is intense. So, what do we need to do to prevent dehydration during our vigorous pickleball games?

Adverse Effects of Dehydration

About 80% of the energy released during exercise is heat. To keep the internal body temperature at levels compatible with life, you need to sweat. Evaporation from sweat is what cools the body. On normal days, a person may sweat about 1 quart per hour. With intense activity this could rise to as much as 3 quarts per hour on hot and humid days. What if you do not replace this loss???

In the earlier stages of dehydration, the symptoms are excessive sweating, dry mouth, clumsiness, headache, dizziness, nausea, and difficulty concentrating. Blood volume decreases which is what delivers energy sources to the brain and muscle. The heart then must beat faster to distribute energy and oxygen at the same levels.

Although thirst is also a symptom, it only occurs after dehydration has begun. In the middle of a game, you may not want to address this symptom and stop to drink. As you round the corner towards the paddle rack, friends beg you to continue and again you haven't really taken more than a sip. You certainly do not want to use the bathroom at the billiard building or anywhere. You might lose your spot!

How much water do we need to drink?

The body can absorb about a cup every 15 minutes or 4 cups per hour. Consuming that amount would help with most active days on the courts where continuous play occurs. If you are only going to play an hour and have come to the courts hydrated, your body can probably make the deficit up later and you can get away with drinking just a cup of water. Remember you lost about 4 cups of water during that hour. Most of us are out there far more than an hour. Three hours of hard play on the courts could result in 3 or more quarts of fluid lost through sweat.

Cold water, about refrigerator temperature (40-50 degrees F), will help to keep your core body temperature down preventing heat related disorders. (Don't ask where the thermometer goes to measure this in the lab.) Water on the skin, over the head or in a cool towel helps you feel better but does little to cool the internal temperature.

Just Plain Water?

While water is the most important thing, electrolyte drinks have some benefit. Sodium is the most common electrolyte found in sweat, while other electrolytes are found in very trace amounts if at all. Electrolytes become a problem with more than 4 hours of play. They are often blamed for cramping; however, the real culprit is probably abuse or overuse of a muscle group. All muscles are exposed to dehydration and slight changes in electrolytes but note that the cramping muscle is the one you just

worked till it was overly fatigued in your 9th straight game. Often this involves the calves or hamstrings in Pickleball. Some people are more susceptible to cramps. Stretching during play may be the best short-term solution for this. Sport drinks may help prevent cramps.

Some fluid replacement drinks contain carbohydrate/glucose. If you will be on the courts for 2 or more hours, then the carbohydrate can be helpful. It is not a replacement for food or fuel. Most sport drinks contain between 30 to 70 Calories per 8 fluid ounces. The small amount of glucose is ideal to replace or supplement the glucose that travels in your bloodstream to supply working muscles and the brain. The brain has a barrier that only allows energy in the form of glucose to enter across that barrier. When glucose levels are depleted rapidly during exercise, the brain often suffers. Thus, the confusion, apathy, mental fatigue, and poor shot selection in your game (smiling now).

Key Hydration Tips for Pickleball

Drink at least 2 cups of water 2-3 hours before play

Drink for performance even if not thirsty

Bring cold water to the courts. Use a 2-quart thermos container with ice. You may want to freeze blocks of ice in little margarine, cream cheese or other plastic containers that will fit in the mouth of your thermos to keep the water at a cool temperature longer.

Consume 1 cup of water/fluid every 15 to 30 minutes, based on your body size, sweat rate and exercise intensity.

When playing for more than an hour, a sports drink is beneficial. A 20-ounce bottle should contain >100 mg sodium and 50- 120 Kcal. Sports drinks include Gatorade, Powerade, Exceed, Store brands. Powders can be bought and mixed at home or dry packets for 20 oz bottles are readily available to store in your bag.

Drink before, during and after play. During hot months, hydrating with water after play can assure that you do not start tomorrow a quart down.

Mix your own Sport Drink

Any flavor Dry beverage mix (like Kool-Aid packet)

2 quarts water

½ cup sugar (packet calls for 1 cup, but that is too concentrated for the best absorption during exercise)

½ teaspoon salt (sodium) or ¾ teaspoon salt substitute (sodium and potassium) (i.e. Morton's lite salt)

Hope to see many of you on the courts this summer with lots of water. Let's make sure that the third shot is the only thing dropping.