



Wellness News Network™

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Issue 4, June 2015

Sports Drinks

Presented by:

Sports drinks are an often helpful way to prevent dehydration and depletion of your body's carbohydrate reserves during prolonged physical activity, though not all sports drinks are created equal. Many commercial sports drinks contain questionable ingredients that may unfavorably affect your health. It is important to understand the circumstances in which sports drinks can best support your exercise performance and the ingredients that make up commercial sports beverages.

Electrolytes Explained

Electrolytes are ions (and, in some cases, essential minerals) that affect metabolic processes in your body, including the movement of nutrients into your cells and the removal of cellular waste products. Electrolytes help regulate the acid-base balance in your body necessary for normal cellular function. Sweat that you lose during exercise contains numerous electrolytes, including calcium, magnesium, sodium, chloride, and potassium, among others. Significant sweat loss without electrolyte replenishment may lead to severe dehydration.

Effects of Dehydration

Your body sweats during exercise to

help keep your core temperature constant. The cost of keeping your core temperature at 37 degrees C, however, is fluid and electrolyte loss. Dehydration can occur quickly with physical activity in extreme environments. The physiological effects of dehydration depend on the percentage of body weight you lose as sweat during prolonged exercise. According to a study published in the *International Journal of Sports Medicine*, you will experience impaired exercise performance after losing as little as 2 percent of your body weight as sweat. A 4 percent body weight loss as sweat significantly reduces your ability to perform muscular work, and sweat-related body weight losses of 5 and 7 percent cause heat exhaustion and hallucinations, respectively. If you lose 10 percent of your body weight as sweat, you will experience circulatory collapse and heat stroke.¹

Carbohydrate Depletion

Carbohydrate depletion - the depletion of your muscle and liver glycogen reserves - is another factor to consider with prolonged, endurance-based activities, such as marathon running. Glycogen is the principle form in which glucose is stored in your liver and muscle tissue.

QUESTION:

At what % loss of body weight from sweating can you experience hallucinations?

- A) 2%
- B) 5%
- C) 7%
- D) 10%

ANSWER:

- C) 7%

QUESTION:

Too much caffeine can cause....

- A) heart palpitations
- B) headaches
- C) insomnia
- D) all of the above

ANSWER:

- D) all of the above

TRUE OR FALSE:

Water is better than a sports drink for low-intensity, short-duration activity

ANSWER:

True

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