



ISSN (E): 2277- 7695
ISSN (P): 2349-8242
NAAS Rating: 5.03
TPI 2020; 9(12): 178-179
© 2020 TPI
www.thepharmajournal.com
Received: 25-09-2020
Accepted: 02-11-2020

S Daisy
Deputy Director in Physical
Education, Community Science
College and Research Institute,
Tamil Nadu Agricultural
University, Madurai, Tamil
Nadu, India

Healthy food for balancing hydration during sport

S Daisy

Abstract

Proper hydration is extremely important for health. Water is body's principal chemical component and makes up about 60 percent of body weight. It is important for athletes to be well-nourished and well-hydrated before going to a workout or competition. This paper presents healthy foods that can contribute a large amount of water to daily diet and balancing dehydration in sports.

Keywords: Hydration, fruits, vegetables, sport

Introduction

Water can be considered as an essential nutrient in diet. The importance of this component in the human daily diet is given by the fact that our body is mainly made up of water (about 70% in an adult and 80% in children) (Maughan and Shirreffs, 2010, Kenefick and Chevront, 2012 and Villiger *et al.*, 2018) ^[3, 2, 4]. Similar to calories, the right amount of water to be drunk is dictated by the balance between the intake and the losses. During exercise, especially in the heat, individuals can sweat as much as 2.5 liters of water per hour. It is very important to avoid dehydration. This paper presents healthy foods that can contribute a large amount of water to daily diet and balancing dehydration in sports.

Water – principal chemical component

Water is body's principal chemical component and makes up about 60 percent of body weight. Every system in body depends on water. Water regulates body temperatures, eliminates toxins, carries nutrients and oxygen to the cells, and provides a moist environment for body tissues and joints. An appropriate water and electrolyte balance are critical for the function of all body systems. Water provides the medium for biochemical reactions within cell tissues and is essential for maintaining an adequate blood volume and the integrity of the cardiovascular system. It is important for athletes to be well-nourished and well-hydrated before going to a workout or competition. During exercise, body temperature rises and the body sweats. The body loses water and electrolytes. Dehydration can cause blood volume to drop, which lowers the body's ability to transfer heat and forces the heart to beat faster, making it difficult for the body to meet aerobic demands.

Hydrated with high water content foods

According to the Institute of Medicine, 20 percent of water intake comes from food sources. The intake comes from both fluids and solid foods (Evans *et al.*, 2017) ^[1]. Fruits and vegetables are the major source of water from food. Many fruits and vegetables, such as watermelon, broccoli and tomatoes, contain 90 percent or higher water content by weight. The water content in fresh fruit can vary by more than 20% – and that's without mentioning dried fruit like cranberries or mango strips.

Fruits

Watermelon contains 92 percent water, 8 percent natural sugar, and essential electrolytes such as, calcium, magnesium, potassium and sodium. Watermelon is rich in Vitamin C, beta carotene and lycopene which will give the body protection from UV light. Grapefruit contains only 30 calories and is comprised of 90 percent water. Phytonutrients called limonoids, found in grapefruits, can be detoxifying and may inhibit tumor formation of cancers. Strawberries are very healthy and contain lots of water. Plus, the nutrients they provide may deliver a number of health benefits. Oranges are a great source of water (88%), fiber, antioxidants and several nutrients and may help prevent kidney stones and several illnesses. Cucumbers are high in water (95%) but very low in calories.

Corresponding Author:
S Daisy
Deputy Director in Physical
Education, Community Science
College and Research Institute,
Tamil Nadu Agricultural
University, Madurai, Tamil
Nadu, India

This combination is beneficial for several aspects of your health, including hydration.

Coconut

Coconut water is a super healthy beverage that will keep you hydrated. Coconut water is comprised of 95 percent water. It is one of the most popular ways to hydrate the moderate intensity athlete. Coconut water differs from coconut milk because it is found in young coconuts only. It may be a poor choice for high intensity or endurance athletes because of its relatively low carbohydrate and low sodium content. Drinking coconut water after exercise is a much healthier option than drinking a manufactured sports drink, since many sports drinks are loaded with added sugar and other unhealthy ingredients.

Vegetables

Tomatoes have an impressive nutrition profile and may provide many health benefits. One medium tomato alone provides about a half cup (118 ml) of water. Tomatoes provide lots of water, nutrients and antioxidants, which are beneficial for hydration and protect against several diseases. Bell peppers are another incredibly healthy vegetable with a variety of health-promoting effects. More than 90% of the weight of bell peppers comes from water. They are rich in fiber, vitamins and minerals, such as B vitamins and potassium. Bell peppers also contain carotenoid antioxidants, which may reduce the risk of certain cancers and eye diseases. Cauliflower provides a significant amount of water (92%), fiber and nutrients, and it's a good substitute for grains that are less hydrating. Eating cabbage may help several aspects of your health, including hydration. This is due to its water (92%), nutrient and antioxidant contents.

Hydrating potassium foods

Potassium is important for muscle contraction and the rhythm of the heart. Cantaloupe provides 29 calories and is made up of 89 percent water is an exceptionally good fruit for supporting energy production through its efficient carbohydrate metabolism and ability to keep the blood sugar stable. Strawberries contain 23 calories and are made up of approximately 92 percent water. Strawberries rank as the fourth strongest antioxidant rich fruit. The polyphenols found in strawberries aid in regulating the blood sugar response in active individuals.

Hydrating sodium foods

Sodium is a required element for normal body functions. It is lost in sweat and urine and is replaced by diet. During exercise, especially in hot weather, more salt is lost in sweat per hour than can be replaced by food or even sport drinks. Hydrating through sodium-rich foods such as celery can be a powerful addition to diet. Celery is considered to be a powerful electrolyte food. As little as two to three mineral-rich stalks of celery can replenish an athlete's sodium, potassium, magnesium, calcium, phosphorus, iron and zinc levels after intense exercise.

Hydrating magnesium foods

Magnesium is an essential mineral which acts as a co-factor for over 300 enzyme systems, including those that control the metabolism of glucose. Magnesium has a strong independent role in controlling blood pressure and is thought to be an important factor in preventing heart attacks. The most

hydrating magnesium rich food is broccoli. Broccoli is part of the cruciferous vegetable family. It contains 90 percent water and many health supporting compounds which are anti-inflammatory.

Conclusion

When it comes to hydrating, there's no substitute for chugging down a glass of actual water (or alt-water), but gobbling up a piece of fruit is among the top ways to achieve optimal hydration, especially in these sweltering summer months. Eating fruits and vegetables with high water content can help satisfy nutrient recommendations and keep you hydrated. If you don't drink the recommended amount of water in a day, fruits and vegetables can provide you with supplemental fluid, keeping you nourished and healthy. Water-rich fruits and vegetables are popular choices for juicing, smoothies and snacking.

References

1. Evans GH, James LJ, Shirreffs SM, Maughan RJ. Optimizing the restoration and maintenance of fluid balance after exercise-induced dehydration. *J Appl. Physiol* 2017;122:945-951.
2. Kenefick RW, Cheuvront SN. Hydration for recreational sport and physical activity. *Nutr. Rev* 2012;70:S137-S142. doi: 10.1111/j.1753-4887.2012.00523.x.
3. Maughan RJ, Shirreffs SM. Dehydration and rehydration in competitive sport. *Scand. J Med. Sci. Sports* 2010;20:40-47. doi: 10.1111/j.1600-0838.2010.01207.x.
4. Villiger M, Stoop R, Vetsch T, Hohenauer E, Pini M, Clarys P, *et al.* Evaluation and review of body fluids saliva, sweat and tear compared to biochemical hydration assessment markers within blood and urine. *Eur. J Clin. Nutr* 2018;72:69-76. doi: 10.1038/ejcn.2017.136.x