

How to Assess the Quality of a Sports Drink

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For workouts or endurance sports lasting longer than 60 minutes, science demonstrates a proven performance benefit to sports drink consumption. There are many sports drinks to choose from in the marketplace. It can be confusing to know which one will fit your needs. There is also a variety of types of sports drinks. These include pre-workout drinks to recovery drinks. In order to find the best sports drinks, it is important to understand how to assess their quality. By assessing quality, you will be able to determine what sports drink meets your specific needs.

Method 1

Method 1 of 2: Check Carbohydrates

1 Understand the makeup of these drinks. The main components of a sports drink are water and carbohydrates. Carbohydrates are important to athletes because they help restore muscle glycogen which can give an athlete enough energy to continue an endurance sport.

2 Know the amount of carbohydrates that are in the drink. You will need different amounts of carbohydrates, depending on when and why you will be consuming the sports drink. A pre-workout drink may have more carbohydrates than a drink needed during a workout, or, a pre-workout drink may have fewer carbohydrates and only serve to keep you hydrated and help with water retention.

- Understand isotonic sports drinks. Isotonic sports drinks have 6 to 8% carbohydrates, water and electrolytes. An isotonic sports drink is an optimum beverage for during a workout. It has the best amount of carbohydrates to help maintain energy. If you are unsure which drink you need, an isotonic beverage is the best way to go because it is versatile and beneficial.
- Understand hypotonic sports drinks. This type has less than 6% carbohydrates and electrolytes. It doesn't contain enough carbohydrates to replenish muscle glycogen. These types of sports drinks are best for hydration only. They can be consumed during a workout lasting less than 60 minutes, before a workout or after a workout. The electrolytes will help with fluid retention.



- Understand hypertonic sports drinks. These contain electrolytes and more than 8% carbohydrates. Hypertonic fluids are not good for during a workout or after a workout because of the high carbohydrate load. They can cause digestion to slow and rehydration to slow because of the amount of carbohydrates the body is trying to digest. Hypertonic fluids are best consumed when carbohydrate loading at least an hour before a workout. They will help with pre-workout muscle glycogen stores.



3 Calculate the percentage of carbohydrates in a sports drink. Check the amount of carbohydrates on the nutrition label. Sports drinks do not usually label the percentage of carbohydrates in the drinks so you will need to calculate it for yourself.

- Convert serving size from fluid ounces (oz) or mL to grams (g). For fluid oz, divide the amount of oz by 0.03527 to get the amount in g. To convert mL to g, divide the amount in mL by 1.
- Calculate the percentage of carbohydrates in a serving size by dividing the amount of carbohydrate in the drink by the serving size in grams and multiplying by 100.



4 Check the types of carbohydrate in the ingredient statement. Different carbohydrates absorb at different rates. For sports drinks, you will want rapidly digestible carbohydrates with a high glycemic index.

- Choose sports drinks with glucose, maltodextrin, dextrose, high glucose corn syrup and glucose and fructose mix. These have a higher glycemic load and will digest more rapidly.
- Avoid sports drinks with high fructose corn syrup or fructose as the main ingredient for energy. Alone, fructose slows digestion and will not absorb as quickly as needed to restore muscle glycogen. Most sports drinks use high fructose corn syrup for flavor so it is important to read the ingredient statement to determine what other carbohydrates are being used.

Method 2

Method 2 of 2: Check Other Functional Ingredients

1 Have an understanding of all of the ingredients. Sports drinks also have other functional ingredients added. A basic sports drink will have water, carbohydrates and electrolytes. Some of the more target specific sports drinks may also have protein, vitamins and minerals, caffeine or amino acids. You may want some of these additional ingredients, depending on what the sports drink is for.



2 Check for electrolytes. Electrolytes act as buffers in the blood stream to ensure cells maintain proper function and help with water movement and retention in the body. Most sports drinks add sodium and potassium for this. According to the Institute of Sports Medicine, sodium plays a very important role in helping to retain water to prevent dehydration, so sodium is important. The effect of potassium as hydration aid in sports drinks has been found to be minimal.



3 Choose a drink with vitamins and minerals. Added calcium and potassium would be good examples of minerals that are important to muscle function. They may help people prone to muscle cramps during exercise. Zinc has been shown to help the body use energy more efficiently. Magnesium can promote relaxation after a workout.



4 Choose a drink with added caffeine. These can be important if you are participating in an endurance sport and want to enhance performance. Studies have shown that caffeine can enhance mental alertness, and, when combined with carbohydrates, can help muscles retain glycogen. This is only recommended for athletes doing more than 60 minutes of exercise. Also, be sure to choose a drink with minimal caffeine content because too much caffeine can cause adverse effects. A common energy drink would have much more caffeine than what is needed. It is best not exceed 200 mg caffeine in a day.

5 Choose a drink with added protein for a post workout recovery drink. Studies have shown protein and carbohydrates consumed within an hour after exercise increases muscle synthesis and decreases fatigue. Milk, whey and soy protein have all been shown to be very effective post workout.



6 Choose a drink with added amino acids. This helps to decrease damage to the muscles and reduce fatigue. Amino acids at amounts as low as 1% have been shown to have an effect on performance and fatigue. This would be an ideal addition to a sports drink that would be consumed during endurance exercise, such as a marathon or triathlon.



Tips

- Milk has been found to be an excellent post workout recovery drink containing protein, carbohydrates, vitamins and minerals that are necessary in combating muscle fatigue and in new muscle synthesis.
- Fruit juice works well as a natural pre-workout beverage because of its high carbohydrate content and rapidly digested sugars. When consuming fruit juice pre-workout, consume water as well to ensure proper hydration.
- Coconut water has been found to be an excellent isotonic drink with naturally occurring electrolytes. It can be used as a replacement for traditional sports drinks during exercise.



Warnings

- Many sports drinks are not formulated for children. Caution should be exercised before giving sports drinks to someone under the age of 18, especially if the sports drink contains any functional ingredients other than water, carbohydrates, sodium and potassium.

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