

SPORTS DRINKS: HOW THEY WORK

How To Read A Sports Drink Label

Key Points

- ◆ Look for sports drinks with 14g/8oz of carbohydrate to encourage rapid fluid replenishment (this is a 6% carbohydrate concentration). Research shows that Gatorade is absorbed as fast as water.
- ◆ Each ingredient in a sports drink (carbohydrate, water, sodium and potassium) performs an important function.

Reading A Sports Drink Label

Carbohydrates, sodium, electrolytes and flavoring -- what is all this stuff, what does it do for you? How much do you need for optimal fluid replenishment? The answers are on the label.

The label on Gatorade shows 14 grams of carbohydrate per 8-ounce serving, but what's the carbohydrate concentration? With a little math you can see it's an ideal 6 percent.

Gatorade (Lemon-Lime flavor)

Nutrition Facts	
Serving size 8 fl oz (240ml)	
Serving Per Container 2	
Amount Per Serving	
Calories 50	
% Daily Value	
Total Fat 0g	0%
Sodium 110mg	5%
Potassium 30mg	1%
Total Carbohydrate 14g	5%
Sugars 14 g	
Protein 0g	
Not a significant source of Calories From Fat, Saturated Fat, Cholesterol, Dietary Fiber, Vitamin A, Vitamin C, Calcium, Iron	
*Percent Daily Values are based on a 2,000 calorie diet.	

INGREDIENTS: WATER, SUCROSE SYRUP, GLUCOSE SYRUP, GLUCOSE-FRUCTOSE SYRUP, CITRIC ACID, NATURAL LEMON AND LIME FLAVORS WITH OTHER NATURAL FLAVORS, SALT, SODIUM CITRATE, MONOPOTASSIUM PHOSPHATE, ESTER GUM, YELLOW 5.

A sodium level of about 100-110 mg per 8 oz enhances the taste, optimizes absorption, and maintains body fluids. Diluted juices are severely lacking in this area. Generally speaking, the lower sodium levels in water and some sports drinks (e.g., Powerade and AllSport) may not stimulate voluntary drinking or help maintain fluid balance as does the higher sodium content in other sports drinks.

The type of carbohydrate (as well as the %) affects sweetness and can reduce fluid intake if too sweet. High fructose levels can cause gastrointestinal distress because they slow absorption. Multiple carbohydrate sources, such as the sucrose and glucose and less fructose, help stimulate fluid absorption.

The level of potassium (30 mg/8 oz) as well as the sodium level should attempt to replace body losses in proportion to those levels lost in sweat.

Research shows that the 6% concentration of carbohydrate in Gatorade (14g/8 oz) is optimal for rapid fluid replacement and improved performance. Recent studies show that Gatorade is absorbed faster than sports drinks, like Powerade and AllSport, with carbohydrate concentrations of 8% or more. (Gatorade is absorbed as fast or faster than water. Water has no carbohydrate and therefore provides no energy)

Don't confuse the % daily value with the carbohydrate percentage of a beverage.

Vitamins and Sports Drinks: No data exist to show a physiological benefit of adding any vitamins to a sports drink. In fact, some B vitamins adversely affect the taste of a beverage and could discourage adequate fluid intake.

Calculate the carbohydrate % of any beverage:

To calculate the carbohydrate concentration of any beverage as a percentage, divide the amount of carbohydrate in one serving (in grams) by the amount of fluid in one serving (in milliliters), and then multiply by 100 (8 ounces equals 240 milliliters).

For Gatorade: $\frac{14 \text{ grams carbohydrate}}{240 \text{ milliliters}} \times 100 = 5.83$ or 6 percent carbohydrate concentration