

GATORADE BEVERAGE COMPARISON CHART

This Beverage Comparison Chart was created to characterize the wide differences that exist in the composition of a variety of common beverages. These differences are important because they not only determine the type and quantity of nutrients provided to the body, but they also influence physiological responses related to **fluid absorption, hydration and performance**. For example, too little carbohydrate won't benefit performance, while too much carbohydrate slows absorption. Too few electrolytes impairs hydration, but too many electrolytes ruin taste.

The formula of Gatorade® Thirst Quencher is **based upon a wealth of science**. The Science of Gatorade® began in the mid-1960's when medical researchers at The University of Florida first began experimenting with a carbohydrate-electrolyte solution specifically formulated to meet the needs of athletes. Over the years, the Gatorade® formula has been adjusted based upon prevailing scientific information. In short, we believe that the Gatorade® formula is the **optimal formula** for a sports drink because it is exactly what the best science says it should be.

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Footnotes:

- 1 Wilk, B. and Bar-Or, O. *J Appl Physiol*, 80: 1112-1117, 1996.
- 2 Shi, X. et al. *Med Sci Sports Exerc*, 27: 1607-1615, 1995.
- 3 Ryan, A.J. et al. *J Appl Physiol*, 84:1581-1588, 1998.
- 4 Below, P.R. et al. *Med Sci Sports Exerc*, 27:200-210, 1995.

- 5 Passe, D. et al. *Appetite*, 35:219-229, 2000.
- 6 Murray, R. et al. *Med Sci Sports Exerc*, 21:275-282, 1989.
- 7 Gonzalez-Alonso, J. et al. *Int J Sports Med*, 13: 399-406, 1992.
- 8 Casa, D.J. et al. *J Athl Train*, 35: 212-224, 2000.

What makes an optimal sports drink?

WHAT THE ACTIVE BODY NEEDS | To keep going strong, active bodies require fluid, carbohydrates and electrolytes. That's exactly what Gatorade® provides. Other ingredients that are sometimes added to sports drinks to provide additional benefits such as vitamins, protein and caffeine aren't needed because the body can't use them during exercise.

THE RIGHT TASTE WHEN YOU'RE ACTIVE | It's no surprise that people will drink more of a beverage with flavor.¹ What does surprise many people is that taste preferences change substantially during exercise. The Gatorade® Company has conducted a lot of research to understand the taste characteristics that appeal most to people when they're hot and sweaty. All of the Gatorade® flavors incorporate this knowledge to make sure Gatorade® tastes best when it's needed most. After all, voluntary drinking is one of the best defenses against dehydration.

CARBOHYDRATE CONTENT | The amount of carbohydrate in a beverage affects taste, fluid absorption and performance. Research has shown that a 6% carbohydrate solution (i.e., 6 grams of carbohydrate per 100 ml of beverage or 14 grams per 8 ounces) strikes the optimal balance in taste, rapid fluid absorption, and delivery of carbohydrate energy to fuel working muscles.^{2,3,4,5}

CARBOHYDRATE TYPE | Rapid fluid absorption depends upon having the right amount and the right kinds of carbohydrates. Gatorade® contains a blend of sucrose syrup and glucose-fructose syrup to take advantage of the way the body absorbs fluid. Other carbohydrate types such as maltodextrin (or glucose polymers) have no proven performance benefits that the carbohydrates in Gatorade® cannot match. Sports drinks containing only fructose or high levels of fructose should be avoided because it can't be absorbed as fast as other carbohydrates and may cause gastric distress.⁶

ELECTROLYTES (SODIUM AND POTASSIUM) | As with carbohydrates, both the amount and types of electrolytes are key factors in a scientifically-based sports drink. Electrolytes like sodium help determine how much fluid is consumed and how much of that fluid remains in the body for proper hydration.⁷

CARBONATION | Carbonation in a sports drink is a bad addition because bubbles get in the way of drinking.⁸ Gatorade® is formulated so that it can be consumed fast and in large volumes. When you lose fluid quickly in the form of sweat, you need to replace it quickly.

CAFFEINE | There's no place for caffeine in Gatorade® because caffeine is a drug, not a nutrient. And caffeine has a diuretic effect that can limit rehydration after exercise by increasing urine production when the body is at rest.⁷

| Ingredients per 8 oz | | Carbohydrate Content (%) | Carbohydrate (grams) | Carbohydrate Type | Calories (kcal) | Sodium (milligrams) | Potassium (milligrams) | Carbonation | Caffeine |
|------------------------------|-----------------------------------|--------------------------|----------------------|---|-----------------|---------------------|------------------------|-------------|----------|
| Gatorade® | The Gatorade Company | 6 | 14 | Sucrose Syrup, Glucose-Fructose Syrup | 50 | 110 | 30 | No | No |
| Accelerade® | Pacific Health Laboratories, Inc. | 7 | 17 | Sucrose, Fructose, Maltodextrin | 93 | 127 | 43 | No | No |
| Allsport Body Quencher® | The Monarch Beverage Company | 7 | 16 | High Fructose Corn Syrup | 60 | 55 | 50 | No | No |
| Cytomax™ Cool Citrus | Cytosport, Inc. | 4 | 10 | Amylopectin Starches, Maltodextrin alpha-Poly lactate™, Fructose, Glucose | 48 | 50 | 55 | No | Yes |
| G Push™ G1 Hydration Formula | GPush Sport LTD. | 2 | 6 | Galactose | 25 | 170 | 40 | No | No |
| GU20® | Sports Street Marketing | 5 | 13 | Maltodextrin, Fructose | 50 | 120 | 20 | No | No |
| Powerade® | The Coca-Cola Company | 8 | 19 | High Fructose Corn Syrup, Maltodextrin | 70 | 55 | 30 | No | No |

OTHER BEVERAGES

| | | | | | | | | | |
|--|---|----|----|-----------------------------------|-----|-----|-----|-----|-----|
| Apple Juice - canned or bottled, unsweetened | USDA database | 12 | 29 | Sucrose, Fructose, Glucose | 117 | 7 | 295 | No | No |
| AriZona® Iced Tea Original Brand With Lemon Flavor | Ferolito, Vultaggio & Sons | 10 | 25 | High Fructose Corn Syrup | 90 | 20 | N/A | No | Yes |
| Bottled Water | | 0 | 0 | None | 0 | 0 | 0 | No | No |
| Capri Sun® Lemonade | Kraft Foods/Rudolf Wild GmbH & Co. KG | 14 | 32 | High Fructose Corn Syrup | 120 | 0 | N/A | No | No |
| Capri Sun® Sport™ | Kraft Foods/Rudolf Wild GmbH & Co. KG | 9 | 23 | High Fructose Corn Syrup | 83 | 59 | 36 | No | No |
| Milk, reduced fat, 2% milkfat | USDA database | 5 | 12 | Galactose | 122 | 122 | 376 | No | No |
| Orange Juice, raw | USDA database | 11 | 26 | Sucrose, Fructose, Glucose | 112 | 3 | 496 | No | No |
| Pedialyte® | Ross Products Division, Abbott Laboratories | 3 | 6 | Fructose, Sucralose | 24 | 248 | 188 | No | No |
| Red Bull® | Red Bull North America, Inc. | 11 | 27 | Sucrose, Glucose | 108 | 207 | 0 | Yes | Yes |
| Regular Cola* | | 11 | 26 | High Fructose Corn Syrup, Sucrose | 93 | 33 | 0 | Yes | Yes |
| Sunny Delight® Tangy Original | Procter & Gamble | 12 | 29 | High Fructose Corn Syrup | 120 | 192 | 32 | No | No |
| Tap Water | | 0 | 0 | None | 0 | 0 | 0 | No | No |

*The Coca-Cola Company

**Nutrition information provided by manufacturer's label