



## The Negative Effects of Gatorade



Gatorade has long been a popular sports drink, especially for kids. It is marketed as an electrolyte replacement drink for athletes. Electrolytes are substances that contain free ions and conduct electricity<sup>1</sup>. In the human body, electrolytes are responsible for regulating nerve and muscle function, blood pH, hydration, blood pressure, and damaged tissue repair<sup>1</sup>. Some examples of electrolytes that are in our bodies are sodium, potassium, magnesium, and chloride<sup>1</sup>. The levels of electrolytes in our blood change when water levels in our body change, for example, during altered hydration status<sup>1</sup>. When we sweat, we lose mostly sodium and potassium, and they must be replaced in order to maintain the proper balance in our bodies<sup>1</sup>. According to ACSM, two pounds of sweat contain an average of 800 mg of sodium (ranges between 200-1600 mg) and 200 mg of potassium (ranges between 120—600 mg)<sup>2</sup>.

Gatorade has three different lines of sports drinks: G2, Gatorade Protein Recover, and Gatorade Thirst Quencher. All Gatorade products have a list of difficult-to-pronounce-ingredients, and many of these ingredients are forms of sugar or artificial sweeteners. In fact, sugar is the second ingredient after water; the ingredient list on a food label lists the ingredients in descending order of prominence and weight. Therefore, Gatorade products are mostly sugar and water. In fact, Gatorade Thirst Quencher has a whopping 14 g of sugar, coming mostly from sucrose syrup and glucose-fructose syrup. “The American Heart Association recommends that no more than half of your daily discretionary calorie allowance come from added sugars. For most American women, this is no more than 100 calories per day and no more than 150 per day for men (or about 6 teaspoons a day for women and 9 teaspoons a day for men)<sup>3</sup>.” This is about 24g of sugar for women and 36g of sugar for men.

Excessive sugar in the diet can be very bad for your health, and it is important to try to limit the amount of added sugar in your diet. Sugar that is naturally occurring in fruit and milk is perfectly fine; it is the added sugars that need to be decreased. Consumers need to beware because sugars are hidden in many different kinds of foods, such as salad dressings and crackers<sup>4</sup>.

One negative consequence of excessive sugar intake is weight gain and obesity. Sugar is very calorie dense, and as stated before, it is added to numerous foods and drinks<sup>4</sup>. Additionally, eating a lot of sugary foods displaces more nutritious foods in the diet, and these foods don't provide the same satiety as healthful foods, and therefore cause overeating<sup>4</sup>. A second issue with added sugars is that they increase the risk for higher triglycerides, lower HDL, and higher HDL, which contribute to an increased risk of coronary heart disease<sup>4</sup>. Lastly, sugar contributes to tooth decay<sup>4</sup>.

The G2 line of Gatorade has fewer calories and less sugar; but it does have sugar alcohols instead. Sugar alcohols are a type of reduced-calorie sweetener<sup>5</sup> that provides fewer calories than regular sugar. They do increase blood sugar levels, but less

dramatically than regular sugar<sup>5</sup>. On a positive note, they do not cause tooth decay. Sugar alcohols can have some negative GI side effects, such as bloating and diarrhea<sup>6</sup>

Another huge problem with Gatorade is the amount of food additives and colorings added to the products. For example, one additive is monopotassium phosphate, which is not only used as a food additive, but also as a fertilizer and fungicide<sup>7</sup>. It is a bit scary to be ingesting an ingredient used to fertilize plants. Additionally some flavors of Gatorade contain brominated vegetable oil (BVO), a food additive used as an emulsifier in drinks with citrus flavoring<sup>10</sup>. Bromine – part of BVO - is an element found in flame retardants<sup>9</sup>! Some research shows that it may build up in the body leading to thyroid problems, memory loss, and skin and nerve problems<sup>9</sup>. It has been banned in Japan and Europe<sup>10</sup>. In January 2013, Pepsico announced they had plans to remove BVO from Gatorade; however, there are no current plans to remove it from Mountain Dew<sup>10</sup>.

Gatorade is also filled with many food coloring, such as blue 1 and red 40. Many studies have showed a link between children and hyperactivity due to food additives<sup>11</sup>. In fact, 35 years of research has shown that many children with ADHD show significant improvement in their symptoms when they eliminate artificial food colors from their diet<sup>12</sup>.

Many popular athletes endorse Gatorade and some may use it to replace electrolytes during sporting events and training. Gatorade isn't completely bad; it does replace sodium and potassium and help restore electrolyte balance and hydration status. Athletes are paid to endorse products, and they may not do their due diligence to find better and healthier alternatives.

#### *A Better Alternative:*

If you are looking for an electrolyte replacement drink, there are better alternatives available. Thorne Performance, a line of supplements geared towards athletes and their needs, has created, Catalyte, an electrolyte and energy restoration complex. Catalyte is all-natural and does not contain calories, sugar, additives, or caffeine. It is also gluten and soy free. Catalyte comes in a lemon lime flavor and the product is easy to mix. In fact, the Catalyte powder formula contains vitamins and minerals that, when mixed with pure water, makes a tasty electrolyte supplement that helps repair and rebuild muscle.

You can learn more about Catalyte and other Thorne Performance products on our website [www.purefitclubnutrition.com](http://www.purefitclubnutrition.com). Again, there are other good products on the market, but Pure Fitness believes in the quality of the products at Thorne.4›

## References:

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