

SPORTS DRINKS



■ ■ ■ Description

Sports drinks are beverages designed to help athletic performance, usually by replacing substances lost in sweat, such as sodium, potassium, and chloride, but also by providing an energy source to reduce fatigue. They are designed to taste good, so those athletes using them will drink them easily and not become dehydrated.

■ ■ ■ Why Athletes Use Them

Athletes use sports drinks to replace sugars and electrolytes lost during exercise. In theory, this makes them superior to water, which only replaces the fluid lost during exercise. By consuming sugar solutions during exercise, the concentration of sugar in the blood is maintained, the body does not have to use its own stores of sugar, and the intensity and duration of exercise are increased.

■ ■ ■ Adverse Effects

- ?? Nausea
- ?? Transient increase in blood sugar levels when not exercising (especially persons with diabetes or Addison's disease)
- ?? Theoretically, dehydration if sugars concentration too high

■ ■ ■ Pharmacology

When people exercise, they use up energy stores and lose both electrolytes and fluids through perspiration. Sports drinks are designed to replace these losses in actively exercising people. Although the content of these drinks has changed dramatically as newer studies further define what they should contain, they have clearly demonstrated a benefit for all types of exercise. In most cases they should be consumed before, during, and after exercise. These drinks generally contain about 6% to 8% carbohydrates, because more concentrated solutions (greater than 10%) may pull fluids from the intestines, causing transient dehydration. Athletes should not consume sports drinks only when thirsty, but instead on a regular schedule, because thirst is not a good indicator of dehydration, and sports drinks replace only about 50% of fluid losses when exercising. The addition of a small amount of fructose to the drink may increase emptying of the stomach, but large amounts often cause problems.

■ ■ ■ Preventive Measures

- ?? Ensure adequate hydration before competition and exercise.
- ?? Choose a drink with appropriate taste because this will help consumption.
- ?? Train using the drink to determine that it is effective and produces no side effects.
- ?? For ultra-endurance exercise and competition, consider also supplementing salt intake.