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Sugar and Athletes: Good, Bad or Evil?

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Sugar has been the center of a lot of negative press , and for good reason. Diets high in added sugar are associated with increased risk of obesity, type 2 diabetes, and heart disease. Added sugar is also known to lead to a “sugar high,” followed by the “crash,” the result of a quick increase in blood sugar from eating a high dose of sugar followed by a quick drop soon thereafter

What does this mean for you, an athlete? As a trained person, your response to sugar is different than the average untrained individual. Your body can handle sugar better than the bodies of the unfit general public. Therefore, if you enjoy a glass of orange juice, a flavored yogurt, or an occasional cookie, the sugar is unlikely to send your body into a huge sugar high and crash.

Sugar can even be beneficial during training, such as during long endurance exercise. Sugar (as in gels and sports drinks) is absorbed quickly and helps maintain steady blood glucose levels during long runs. Marathon runners can perform better with some type of sugar-fix.

As you exercise, your body makes many positive physiological adaptations, including your body's response to dietary sugar. Exercise helps your body become more sensitive to insulin, the hormone responsible for bringing sugar (glucose) into your muscles. Thus, you need less insulin to be able to utilize glucose and your body can handle sugar efficiently. Research has actually shown that exercise is one of the most effective ways to improve blood glucose levels and reduce incidence of type 2 diabetes. It's even been shown to be more effective than pharmaceutical drugs.

As a trained athlete, you are better able to use sugar throughout the entire day, not just during exercise. For example, in one study trained athletes needed less than half the insulin (30 mU/ml vs. 73 mU/ml) to metabolize 100g (400 calories) of glucose taken on an empty stomach, as compared to untrained people. Exercise may also reduce the body's natural deterioration of glucose tolerance that comes with aging.

How much sugar is OK to eat? The World Health Organization (WHO) recommends no more than 10% of your calories come from added sugar. So, if you are eating a 2,500-calorie diet, you can enjoy (guilt-free) about 250 calories from added sugar per day. This doesn't include sugars naturally found in food such as fruit or 100% juice. But, remember this does include things like gels and sports drinks. So if you consume 2 gels and 8 oz of Gatorade on a long run, that counts towards your daily limit.

The bottom line

Each person has a unique response to sugar. Pay attention to how your body responds, and fuel yourself accordingly. While natural sugars in fruits and veggies certainly offer far more nutritional value than refined sugars in sports foods and candies, 10% of calories from sugar means you don't have to have a "perfectly clean" diet to have a good sports diet. Some sugar can be good, too much can be bad, but it tends to be yummy, not evil. Enjoy in moderation, as desired.

Sources

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For more information:

Nancy Clark's Sports Nutrition Guidebook (<http://www.nancyclarkrd.com/books>)

This blog was written with help of Sarah Goldberg while she was a student at Tufts.

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Nancy Clark, MS, RD, CSSD is an internationally respected sports nutritionist, weight coach, nutrition author, and workshop leader. She is a registered dietitian (RD) who is a board Certified Specialist in Sports Dietetics (CSSD). She is also a certified WellCoach. Nancy specializes in nutrition for performance, life-long health, and the nutritional management of eating disorders. She counsels both casual exercisers and competitive athletes in her private practice in the Boston area (Newton, MA). Some of her clients consider her to be their food coach, others their food therapist. Regardless, she enjoys the challenge of helping sports-active people transform their suboptimal eating habits into effective fueling plans. Nancy Clark's Sports Nutrition Guidebook, a best-selling resource, has sold over 550,000 copies and is now in its new fifth edition.

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