

Glucose and Diabetics

Key Points

- Diabetics must closely monitor the amount of sugar consumed, and their dose of medication and exercise
- GLeukos sports drink contains a moderate amount of sugar; a diabetic with well-controlled blood sugar is able to safely consume it
- Hydration and fuel replacement are important for exercising diabetics

People with diabetes are able to enjoy a regular and even competitive exercise program much like other athletes. In general, exercise will lower blood sugar levels in everyone, including diabetics; however, diabetics have specific challenges with exercise and maintaining their blood sugar levels. A diabetic is typically unable to absorb sugar from their bloodstream, necessitating certain medications (such as insulin or oral hypoglycemic agents) and strict dietary adjustments. Because of this, a diabetic must be extra vigilant about their blood sugar levels when exercising and taking diabetic medications.

There are two different types of diabetics; Type 1 diabetics must periodically inject insulin to help their body absorb sugar from the bloodstream, while those with type 2 diabetes typically do not need to inject insulin (but some may use other medications) to control blood sugar levels. It may be easy for a diabetic to become hypoglycemic (low blood sugar) during exercise due to the combined effects of medications and exercise. While the issue of maintaining proper blood glucose levels during exercise is very specific to the individual, there are certain aspects of fluid and fuel replacement that may be broadly applied to diabetics while exercising.

Because exercise can alter blood sugar levels and the amount of medication needed, it is important that people with diabetes consult their physician prior to embarking on an exercise program. Exercising diabetics are encouraged to closely monitor their blood sugar and carbohydrate intake. While informative guidelines exist, exact dose adjustments must be made on an individual basis to obtain the right balance between blood glucose levels, insulin, and carbohydrate replacement sources immediately preceding, during and following exercise.¹

Because a diabetic's blood sugar levels may easily become too low during and after exercise, it is recommended that all diabetics carry a source of glucose when exercising².

*People with diabetes should consult their physician prior to altering their diet.

¹ McNiven-Temple, M. Y., O. Bar-Or, and M. C. Riddell. The reliability and repeatability of the blood glucose response to prolonged exercise in adolescent boys with IDDM. *Diabetes Care* 18: 326-332, 1995.

² Wallberg-Henriksson. Acute exercise: fuel homeostasis and glucose transport in insulin-dependent diabetes mellitus. *Med. Sci. Sports Exer.* 21: 356-361, 1989.

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Gleukos Key Points:

Gleukos is an ideal glucose-replacement source for diabetics for a number of reasons:

1. Gleukos' primary ingredient is glucose, the most rapidly assimilated carbohydrate.³ Glucose is the recommended sugar replacement for all diabetics and is carried by all emergency personnel for the purposes of raising blood sugar.
2. The amount of carbohydrate in Gleukos is optimal for keeping blood sugars at a healthy level in diabetics. At 17 grams per serving, the amount of glucose is enough to keep blood sugar sustained, but not so much that a 'crash' will result from ingesting it. Other foods & drink such as sodas, 'energy bars' and even fruit juices contain excessively high amounts of sugars that can detrimentally affect a diabetics' blood sugar balance.
3. Hydration is also important in diabetics, who tend to dehydrate more easily than others. Gleukos provides both the electrolytes and fluids that are necessary for optimal hydration status.