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BLOOD GLUCOSE

Blood Glucose Importance and Function Health and Function

Glucose, a prominent sugar found in our bloodstream is a monosaccharide, the smallest of the building blocks that make up carbohydrates. Glucose acts as a major fuel source for energy production. Regulation of glucose involves many organs including the nervous system, pancreas, liver, gut, and adipocytes[1]. Insulin and glucagon are secreted from the pancreas and act to regulate the amount of glucose in the bloodstream. Glucose mismanagement can lead to an array of inflammatory, cardiovascular, and metabolic issues. You can support healthy glucose levels by consuming a diet high in fiber, vitamins, and phytonutrients while limiting the amount of refined carbohydrates, highly processed foods and beverages with added sugar. Also create healthy exercise habits, limit stress, and optimize sleep patterns to promote glucose regulation.

Supportive Lifestyle Practices

- Engage in regular exercise. Going for a walk or engaging in light physical activity after a meal has been shown to improve post prandial blood glucose levels[2]
- Long-term elevations of cortisol can lead to persistent high blood sugar[3]. Consider implementing stress reduction techniques to support healthy cortisol levels.
- Mindful eating practices such as sitting at the table for a meal, chewing food thoroughly, or serving smaller portions to avoid overeating[4]
- Develop healthy sleep habits as sleep deprivation has been shown to increase oxidative stress and inflammation which has a direct impact on blood glucose[5]

Whole Foods Nutritional Recommendations

Consumption of foods high in soluble fiber as they have been shown to improve post prandial glucose response[6,7]. Examples include oats, peas, beans, apples, and carrots.

- Ensure adequate protein consumption at each meal to stabilize blood glucose levels. Healthy protein sources include poultry, fish, dairy, eggs, legumes, nuts and seeds.
- A high protein diet lowers blood glucose postprandially, increases satiety, and has a beneficial outcome on glycemic markers. The current recommended dietary allowance (RDA) of protein is 0.8 g protein per kg body weight per day[8], however higher intake may be beneficial in certain populations. [9-10]
- Consumption of foods rich in polyphenols such as green tea, buckwheat, berries, whole grains, fruits, vegetables, cocoa, and coffee. Polyphenols may suppress glucose release from the liver and improve glucose uptake in peripheral tissues.[14] They also have antioxidant activity and can inhibit the formation of advanced glycation end products (AGE). [12-14]
- Consider the addition of cinnamon to the diet. This popular culinary herb can support improved fasting blood glucose.[15]

Metabol Complex

Suggested Use: **1 tablet 3 times per day**

Metabol Complex contains Fenugreek, Black Cumin seed, Bitter Melon and Cinnamon to provide multi-action metabolic support.*
These herbs have been traditionally used in Ayurvedic herbal preparations to:

- Support the metabolism of fats and sugars*
- Support normal pancreatic and liver function*

Chromium Complex

Suggested Use: **1 tablet per meal**

Chromium Complex, formerly known as Cataplex® GTF, is supplement with chromium and niacin that supports carbohydrate digestion.*

- Encourages healthy blood sugar utilization at the cellular level*
- Supports healthy blood sugar levels when already within a normal range*

Whole Food Fiber

Suggested Use: **1 level tablespoon per day**

Whole Food Fiber is a good source of dietary fiber from nutrient-rich whole foods.

- Contains both soluble and insoluble fiber
- Promotes regular intestinal motility and elimination*
- Adequate fiber consumption helps maintain blood sugar levels that are already within normal range*

Glucose Assist™ Vanilla or Chocolate

Suggested Use: **Three slightly rounded scoops in 10-12 ounces water, one to two servings per day. Shake or blend product thoroughly for 10 to 15 seconds.**

Glucose Assist™ Vanilla or Chocolate is a low glycemic blood sugar support shake powder that helps support healthy blood sugar levels already in a normal range.*

- Supports a reduction of post-meal glycemic response in healthy individuals*
- Is a uniquely designed, complete nutritional formula with a blend of plant-based carbohydrates and proteins
- Helps support normal blood sugar levels already in a healthy range*
- Provides a slower and more sustained release of glucose to help minimize acute blood sugar spikes and steady post-meal glucose levels in healthy individuals*^
- Provides slow-release carbohydrates for sustained energy*

Assessment of Blood Glucose Regulation

In Office/Physical Exam

- Changes in thirst, urination, and hunger
- Assess relevant tissues/organs such as eyes, nerves, kidneys, vascular system, skin
- Key lab studies: fasting blood glucose, HbA1c, fasting insulin, urinalysis
- Consider Oral Glucose Tolerance Test (OGTT) and/or Continuous Glucose Monitoring (CGM)

Supplementation Support Recommendations

https://drstephenstokes.standardprocess.com/products/metabol-complex
https://drstephenstokes.standardprocess.com/products/chromium-complex
https://drstephenstokes.standardprocess.com/products/whole-food-fiber
https://drstephenstokes.standardprocess.com/products/glucose-assist-chocolate