

BLOOD SUGAR REGULATORS

The key to dealing with both diabetes and pre-diabetes lies in successfully controlling blood sugar, which allows you to avoid the surges and crashes that can make you feel like you've been put through the spin cycle. And while the dynamic duo of diet and exercise are the main paths to blood-sugar heaven, complementary medicine uses several supplements that may help ease the way to tight sugar control.

What It Is

Research Notes

Alanine

An amino acid, or protein building block; found in many kinds of foods from animal sources

Helps the body properly utilize glucose (blood sugar); also serves as a source of energy for muscle tissue and aids in the metabolism of pyridoxine (vitamin B-6)

Banaba

An herb, *Lagerstroemia speciosa*, native to India, Southeast Asia and the Philippines; also known as queen's flower, pride of India, queen's crape myrtle

Has helped drop blood-sugar levels in people with type 2 diabetes due to the action of a substance called corosolic acid that assists in transporting glucose into cells; also appears to indirectly promote weight loss

Beta-Glucan

A type of soluble fiber found in many cereal fibers, including oats, wheat and barley

Helps keep glucose levels from rising too rapidly by slowing down the digestive process so that sugar is absorbed more gradually; also helps lower cholesterol levels and enhance the immune system

Bitter Melon

A tropical plant, *Momordica charantia*, that produces a warty, cucumber-like fruit; all parts of the plant are used therapeutically

Long valued in natural medicine for its glucose-lowering properties; has also shown an ability to fight viruses and various kinds of cancers

Chromium

A trace mineral found in brewer's yeast, meat, eggs, apples, wheat germ, bananas and green peppers

Fights insulin resistance, which in turn lowers glucose levels, and has helped some people with diabetes reduce medication levels; recent research links increased chromium intake with reduction in cardiovascular risk factors among diabetics

Cinnamon

A tropical spice that has become a household staple around the world

Makes insulin more effective; may also help lower blood pressure

Fenugreek

One of the oldest medicinal herbs (*Trigonella foenum-graecum*) in the world; the leaves (called *methi* in India) are used in cooking and the seeds are used as a spice

Has reduced glucose levels in type 2 diabetes and may help do so in type 1 (insulin-dependent) diabetes; also used to encourage milk production in breastfeeding moms

Guggul

A remedy taken from the sap of the mukkul myrrh tree (*Commiphora mukul*), which grows throughout India

Has helped improve insulin function; also used to lower cholesterol and triglyceride levels

Gymnema

An herb, *Gymnema sylvestre*, native to India; its Sanskrit name, *gurmar*, means "sugar destroyer"—chewing the leaves eliminates the tongue's ability to detect sweetness

Lowers both glucose and glycosylated hemoglobin; some studies suggest it may even help regenerate beta cells within the pancreas, the cells that are destroyed in type 1 diabetes

Rehmannia

An herb, *Rehmannia glutinosa*, native to northern China

Helps reduce glucose levels, especially when it's combined with other herbs

Always use these nutrients under the direction of a trained health practitioner. Do not use in conjunction with prescription medications, including insulin, without guidance.

GLOSSARY

Glycosylated hemoglobin (HbA1c): The amount of hemoglobin, a substance within red blood cells that carries oxygen, chemically attached to glucose; an indicator that glucose levels have been too high for an extended period of time.

Insulin resistance: The inability of insulin to do its job of transporting glucose and triglycerides (blood fat) into cells for energy production.

Soluble fiber: Fiber that dissolves in water and forms a gel within the intestines.