



What is a dietary supplement?

A dietary supplement completes or improves your diet by adding substances meant to support your health. With dietary supplements, substances such as vitamins, minerals, amino acids, enzymes, and herbs or other botanicals are packaged as a pill, tablet or powder that can be taken by mouth. All dietary supplements are labeled as such and can be recognized by the Supplement Facts panel that lists the amount of each substance included in the product.

Dietary supplements that may play a role in glycemic and cholesterol management or help deficiencies

People with diabetes commonly have deficiencies of vitamins, minerals or other nutrients. Your health care provider can help you find out if you have a deficiency and may recommend a supplement to support your glycemic or cholesterol management. It is important to talk with your health care provider before taking any dietary supplements and remain on any medications or treatment plans unless the provider says otherwise. Dietary supplements can interact with medication and are not reviewed by the Food and Drug Administration. This table is for informational purposes only and is intended to help guide questions and discussions you may have with your provider.

Supplement	Marketing Claims	Safety Information	Research Findings and Effectiveness
Chromium	<ul style="list-style-type: none"> Helps manage blood sugar and cholesterol. Helps with weight loss. 	<ul style="list-style-type: none"> For chromium, no information on the maximum level of intake that poses a risk of negative health effects is available. 	<ul style="list-style-type: none"> Chromium is an essential trace mineral needed to process blood sugar. Chromium supplements may only help people who do not get enough chromium in their diet.¹ Chromium may or may not help to lower cholesterol levels.
Cinnamon (<i>Cinnamomum cassia</i> or <i>aromaticum</i>) Available as a spice or supplement	<ul style="list-style-type: none"> Lowers blood sugar in type 1 and type 2 diabetes. 	<ul style="list-style-type: none"> Side effects may include indigestion and gas. May cause or worsen liver disease. 	<ul style="list-style-type: none"> No benefit for blood sugar found in high quality studies to date. Potential benefits from studies include slight lowering of blood sugar and blood cholesterol levels when taken before eating.²
Gymnema (<i>Gymnema sylvestre</i>) (Gurmar)	<ul style="list-style-type: none"> Lowers blood sugar in type 1 and type 2 diabetes. 	<ul style="list-style-type: none"> No harmful effects have been reported. 	<p>Studies of type 1 and 2 diabetes have shown that:</p> <ul style="list-style-type: none"> In individuals with type 1 diabetes: supplementation of gymnema decreased fasting blood glucose and insulin dose;³ In individuals with type 2 diabetes: supplementation of gymnema decreased blood sugar and fats.⁴
Omega 3 Fatty Acids Can include alpha lipoic acid (ALA), EPA and DHA.	<ul style="list-style-type: none"> Promotes healthy blood sugar. ALA may reduce symptoms of nerve pain (peripheral neuropathy). 	<ul style="list-style-type: none"> Side effects may include skin rash and nausea. May interact with drugs that affect blood clotting. 	<ul style="list-style-type: none"> Omega 3's have been found to reduce triglycerides in people with diabetes.⁵ A recent prescription dose has been found to reduce heart attacks in people with diabetes.⁵ ALA has been studied in the treatment of diabetes related neuropathy and showed positive results. In macular edema it was not found to be helpful.^{6,7}
Nopal (<i>Opuntia streptacantha</i>) Available as a food or supplement	<ul style="list-style-type: none"> Supports healthy blood sugar levels. Contains fiber. 	<ul style="list-style-type: none"> Side effects may include nausea, stomach fullness and mild diarrhea. 	<ul style="list-style-type: none"> Studies have shown eating 500 g (17 oz) of broiled nopal can lower blood sugar.⁸

Supplement	Marketing Claims	Safety Information	Research Findings and Effectiveness
Psyllium <i>(Plantago ovata)</i> Referred to as psyllium fiber or psyllium husk	<ul style="list-style-type: none"> Relieves constipation. Helps lower cholesterol. 	<ul style="list-style-type: none"> Side effects may include gas, bloating, constipation, diarrhea. 	<ul style="list-style-type: none"> Results have been mixed for cholesterol, with some studies showing psyllium may have moderate lowering effects on total and LDL cholesterol.⁹ May have some benefits in reducing high blood pressure and improving glucose levels in people with type 2 diabetes.^{9,10} Using psyllium can help with constipation.¹¹
Red Yeast Rice <i>(Monascus purpureus went)</i>	<ul style="list-style-type: none"> Supports heart health. 	<ul style="list-style-type: none"> Side effects may include the same side effects as statins, a type of medication to lower blood cholesterol, such as muscle pain and liver toxicity. There is a lack of uniformity in supplements. 	<ul style="list-style-type: none"> The United States Food and Drug Administration prohibits listing the amount of monacolin on the label because monacolin is like the ingredient in lovastatin, which is a prescription drug for lowering blood cholesterol. Studies have shown red yeast rice reduces total cholesterol, low-density lipoprotein (LDL, also known as bad cholesterol) and triglycerides (a type of fat in the blood).^{12,13}
Stanols/Sterols Found in most plant foods, also available as supplements	<ul style="list-style-type: none"> Lowers cholesterol. 	<ul style="list-style-type: none"> Appears to be safe in doses shown to lower cholesterol levels. High doses may interfere with the absorption of fat-soluble vitamins such as vitamins A, D, E, and K. 	<ul style="list-style-type: none"> Studies have shown that sterols in plant foods reduce total cholesterol and LDL cholesterol by about 10% to 15%.^{14,15,16}

Choosing the right supplement

It is important to tell healthcare providers like your doctor or pharmacist if you are taking supplements or are thinking about taking them. They can let you know about any combinations with foods or drugs that may put your safety at risk. To start the discussion with your provider, bring the following information to your next appointment:

- **A list of supplements and any over the counter medications you use.** This can include vitamins, minerals, herbs and more.
- **Information about the frequency and dose of your supplements,** such as how many times you take the supplements per day/week, how many pills/capsules you take each time and the dose of each supplement which you can find in the Supplement Facts panel of the product.
- **The brands of the supplements you're currently taking** and any favorite brands you use.
- **The main reason why you are taking any supplements.**

Do not stop taking your prescribed medications without talking to your provider first. Because some supplements may lower your blood sugar, it is important that you check your blood sugar often and report any unexpected results to your provider.

In studies looking at dietary supplements comparing strength on label versus laboratory tests, much variation has been found. It is important to use supplements that are verified for purity, quality and safety. The National Safety Foundation's website — www.nsf.org — offers useful information that helps you make an informed choice when you're shopping for dietary supplements. Make sure to look for the active ingredient in the supplement and take the recommended dose. More is not better and too much may even be toxic.

References: For a full list of the references cited in the table visit DiabetesEducator.org/SupplementTipSheetRefs

Resources

Check these useful resources to get more information about using supplements.

National Safety Foundation: Consumer Resources for Supplements and Vitamins — nsf.org/consumer-resources/health-beauty/supplements-vitamins

Natural Medicines Database — naturalmedicines.therapeuticresearch.com

FDA: Dietary Supplements — fda.gov/food/dietary-supplements

Medline Plus: Complementary and Alternative Medicine — medlineplus.gov/complementaryandintegrativemedicine.html

National Center for Complementary and Integrative Health — nccih.nih.gov

Consumer Labs — consumerlab.com

National Institutes of Health Dietary Supplement Label Database — dslid.nlm.nih.gov

Cleveland Clinic Wellness Supplement Guide — clevelandclinicwellness.com/suppreview