

# NUTRITION



## F A C T S H E E T

### The Plant Sterol Story: Using Food Choices to Help Manage Cholesterol

Adding plant sterols to your diet is one of several simple changes you can make to help manage your cholesterol level. The National Cholesterol Education Program’s guidelines for adults with elevated cholesterol levels include 2 grams of plant sterols a day for effective cholesterol lowering.

Plant sterol research has been building since the 1950’s. The foundation is solid and the experts agree—plant sterols can play a role in cholesterol management. In fact, over 140 studies have shown that plant sterols can significantly lower LDL cholesterol levels. The Food and Drug Administration considers the strength of the research on plant sterols strong enough to support a health claim. They have authorized a health claim for food labels about plant sterols and lowering heart disease risk as part of a diet low in saturated fat and cholesterol. A review of research found that 2 grams per day of plant sterols provide, on average, an estimated 10% reduction in LDL cholesterol. A 10% decrease in LDL cholesterol may reduce the risk of heart disease by up to 10%.

#### What is a plant sterol?

Plant sterols, sometimes called phytosterols, are naturally found in some vegetable oils, nuts, grain products, fruits and vegetables. Because of their ability to help lower LDL cholesterol, plant sterols have been added to common foods like vegetable oil spreads (margarines), mayonnaise, smoothies, orange juice and snack bars.

#### How do they do that?

Although the details are not fully understood, plant sterols appear to get in the way of cholesterol absorption. Plant sterols look a lot like cholesterol—they have a similar chemical structure—which is what appears to make them so good at reducing the absorption of cholesterol. By preventing the cholesterol from being absorbed in the digestive tract, the body takes in less cholesterol.

#### Using Food Choices to Manage Your Cholesterol

Help keep your cholesterol in check by making smart food choices and being physically active. The National Cholesterol Education Program (NCEP) provides cholesterol education to raise awareness and understanding of the risks of high

#### FOOD SOURCES OF PLANT STEROLS

Avocados, 1 small	0.13 grams
Corn Oil, 1 tablespoon	0.13 grams
Sunflower Seeds, ¼ cup	0.19 grams
Oat Bar with plant sterols, 1 bar	0.4 grams
Orange Juice with plant sterols	1.0 gram
Vegetable oil spread with plant sterols, 1 tablespoon	1.0 gram
Fruit & yogurt flavored minidrink with plant sterols, 3 oz. bottle	2.0 grams

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cholesterol and benefits of lowering blood cholesterol levels. If you need to lower your cholesterol, NCEP has developed a set of tools called Therapeutic Lifestyle Changes (TLC) to help you reduce your risk of heart disease. As you work with your doctor and registered dietitian to lower your cholesterol, these recommended changes may be part of your lifestyle changes.

The TLC plan and the ADA Evidence Analysis Library include the following dietary recommendations to lower LDL cholesterol:

- Less than 7 percent of total calories from saturated fat and trans fat
- Less than 200 milligrams a day of dietary cholesterol
- 25 to 35 percent of daily calories from total fat

Eating plan options you can use for more LDL cholesterol lowering:

- 2 to 3 grams per day of plant sterols or stanols
- 25 to 30 grams of fiber per day with an emphasis on soluble fiber (7 to 13 grams)
- Only enough calories to reach or maintain a healthy weight
- At least 30 minutes of moderate intensity physical activity (such as brisk walking) on most days of the week

Foods low in saturated fat include fat-free or low-fat dairy products, lean meats, fish, chicken, whole grains, fruits and vegetables. Look for liquid or tub margarines that are low in saturated fat and contain little or no trans fat. Foods rich

in soluble fiber include: fruits, vegetables and whole grains, especially high fiber cereals, oatmeal and beans.

### **From Science to the Plate**

Here's what the research tells us about eating plant sterols:

- As few as three weeks of 2 grams daily plant sterols intake can decrease LDL cholesterol levels by an average of 10% for most people.
- Plant sterols work best when consumed with a meal.
- Eating 2 grams of plant sterols at one time per day works too.
- Eating more than 2 to 3 grams of plant sterols per day does not provide any additional cholesterol-lowering benefits.
- It is important to balance calorie intake with physical activity, so look for foods that offer the most plant sterols per serving to get to the recommended 2 grams per day and contain other important essential nutrients, such as omega-3 fatty acids.
- Remember: Plant sterols are not a replacement for prescribed medications. Always consult your doctor and registered dietitian concerning any dietary changes you may make when taking medications.

A registered dietitian (RD) can help you incorporate these dietary changes into a personalized eating plan that fits your lifestyle. Ask your doctor for a referral or go to [www.eatright.org](http://www.eatright.org) for names of RDs in your area.

For a referral to a registered dietitian and for additional food and nutrition information visit

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