



## Heart To Heart

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STRENGTH: 400mg  
FORM: 60 caps

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### Benefits

Phytosterols are a natural plant-based ingredient that has been clinically proven to lower cholesterol, thereby reducing the risk of heart disease. Also known as plant sterols, phytosterols work by helping block the absorption of cholesterol in the digestive tract.

Humans have consumed plant foods throughout history and benefited from their rich amounts of fiber and protein. A natural product, phytosterols offer a safe and effective way to help reduce the risk of coronary heart disease, the leading cause of death.

Phytosterols are found naturally in vegetables, seeds, nuts and some fruits. They are sometimes incorporated into food products such as margarine, spreads, mayonnaise, yogurt and low-fat milk.

Clinical evidence has shown that phytosterols are effective in lowering Low-Density Lipoprotein (LDL) cholesterol. Often referred to as “bad” cholesterol, LDL cholesterol can clog arteries and increase the risk of heart disease.

## Can Phytosterols Lower Cholesterol?

By Jennifer Moll

Phytosterols, also known as plant sterols, are cholesterol-like molecules found in plants, such as whole grains, fruits, legumes, and vegetables. All plants contain phytosterols but, to date, the amount of sterols contained in each plant has not been established. Although there have been more than 40 types of plant sterols discovered so far, three of them are the most abundant: beta-sitosterol, campesterol, and stigmasterol.

Phytosterols differ from animal cholesterol only slightly in their structure, but vary greatly in their ability to induce atherosclerosis, which is the buildup of a fatty plaque on vessels that can lead to heart disease.

### Animal Cholesterol Bad, Phytosterols Good

In persistently high amounts, the cholesterol found in animals can increase blood cholesterol and may lead the development of atherosclerosis and heart disease.

Phytosterols, on the other hand, are minimally absorbed from the small intestine, so they do not enter the bloodstream. Additionally, phytosterols stop or slow absorption of dietary cholesterol and cholesterol made by the liver. How this occurs is not fully known. Nonetheless, there have been many products that have hit the grocery shelves containing phytosterols, such as margarine spreads, salad dressings and supplements. Many of these products may contain saturated phytosterols, which are known as phytostanols, or plant stanols.

### Do Phytosterols Really Lower Cholesterol?

There have been many studies that have examined the cholesterol-lowering abilities of phytosterols. Several studies have indicated that up to two grams of phytosterols per day can lower low-density lipoproteins (LDL) by 10 percent. This amount would roughly equal to 1 teaspoon of the extract, or one tablespoon of a spread containing phytosterols.

High-density lipoproteins (HDL) and triglycerides do not appear to be affected by phytosterols. Additionally, it only takes one to two weeks to see the cholesterol-lowering results of phytosterols. During these studies, individuals were either placed on a low fat diet or maintained the diet they had before the study. The Food and Drug Administration has taken notice and has allowed products containing phytosterols to be labeled as “heart-healthy”. There are many products currently on the market, such as salad dressings, spreads, candies, and supplements and this designation would be clearly labeled on any product containing sterols or stanols.

Despite the wide variety of foods stanols are contained, there is some debate on the effectiveness of stanols when taken as a supplement. Some researchers contend that, when

purified during the manufacturing process, the phytosterols found in supplements are not biologically active. This would mean that the phytosterols found in some supplements may not be effective in lowering cholesterol if not properly prepared by the manufacturer. The phytosterols found in foods, from soybeans to spreads, are biologically active and would therefore be beneficial in lowering cholesterol.

## The Bottom Line

Eating fruits and vegetable is good for you, and the research mentioned above is just further evidence of that. Also, although these results appear promising, there is still more information needed to address the potential for phytosterols to cause atherosclerosis when used long-term in humans. The research to date indicates that phytosterols may actually reduce the likelihood of atherosclerosis development in healthy individuals. The exception for this would be individuals who suffered from the rare, genetic condition, phytosterolemia, or sitosterolemia, which causes high levels of phytosterols in the blood and premature atherosclerosis.

### Sources:

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## SALICIN (from Willow Bark Extract)

### Medicinal Uses and Indications:

Willow bark is used to ease pain and reduce inflammation. There is good evidence that it does just that. Researchers believe that the chemical salicin, found in willow bark, is responsible for these effects. However, studies have identified several other components of willow bark that have antioxidant, fever-reducing, antiseptic, and immune-boosting properties. Some studies have shown willow is as effective as aspirin for reducing pain and inflammation (but not fever), and at a much lower dose. Researchers think that may be due to the other compounds in the herb.

## **Nattokinase**

### **What is Nattokinase?**

Nattokinase is an enzyme extracted from natto, a Japanese food made from fermented soybeans. To make natto, boiled soybeans are combined with the bacteria *Bacillus subtilis natto*.

Natto is a popular breakfast food in Japan, where it is eaten with rice. Natto has a strong, cheese-like smell; a nutty, salty flavor; and a sticky consistency.

The supplement nattokinase is purified from natto and made into tablets and capsules, so it doesn't have the same strong smell or taste as the food.

Nattokinase is said to have similar clot-dissolving abilities as plasmin, a natural enzyme in blood.

Nattokinase may lower blood pressure. Nattokinase shouldn't be used by people with bleeding disorders, or by people who are taking Coumadin (warfarin), aspirin, or any other drug that influences blood clotting (unless under doctor's supervision).

### **For Educational Purpose Only**

**This information is strictly for educational purposes only. Not intended to diagnose, treat or imply cure or prevention of any illness or disease. One should always consult with their medical doctor or nutritional practitioner prior to adding any supplement or herb to their daily intake.**

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