

plant sterols



YOUR DIET CAN PROVIDE PLANT STEROLS

Plant sterols (also known as phytosterols) are natural substances that can help lower your cholesterol. They exist in wood pulp and leaves, but are also found naturally in certain foods such as vegetable oil, nuts, legumes, corn, fruits and vegetables. You can obtain higher levels through enriched margarine spreads.

HOW DO THEY WORK?

When consumed, plant sterols reduce the absorption of cholesterol from your intestines into the body. This includes both the cholesterol you eat (called dietary cholesterol) and that made by your liver, which enters the intestines through bile. Studies show that plant sterols can lower LDL (or 'bad') cholesterol in the blood by around 10 per cent.

HOW MUCH DO YOU NEED?

Typical western diets supply only around 200-400 mg plant sterols per day. Vegetarians usually consume more, around 600-800 mg, because they eat more plant foods.

If you have a raised blood cholesterol level, you will require 2-3 g plant sterols per day to lower your cholesterol. This is 5-15 times more than the level typically eaten!

WHAT CAN YOU DO?

FOOD AND NUTRITION TIPS

TO EASILY ACHIEVE THE REQUIRED INTAKE FOR CHOLESTEROL LOWERING:

Use 20-30 g of an enriched margarine spread* daily – enough to cover 3-4 slices of bread.

In some countries there are a variety of foods enriched with plant sterols to choose from, such as salad dressings and mayonnaise. However, margarine spreads are the only foods presently allowed to be fortified in Australia. The Australian food industry has applied to the regulatory authority for permission to add plant sterols to fibre-increased bread, breakfast cereal bars, low fat milk and low fat yoghurt.

*NB: Some plant sterol enriched margarines can't be used in frying, refer to the directions on the packaging carefully.

It is important to remember that sterol margarines are not a substitute for a healthy diet and should be used in combination with a diet which is low in saturated fat and high in fruit and vegetables and wholegrain foods.

SAFETY PRECAUTIONS

While foods naturally containing plant sterols are safe to eat for the whole family, the safety of enriched foods has needed to be evaluated as these contain higher levels of plant sterols, not usually consumed in the human diet.

More than 30 clinical studies show that margarine spreads with added plant sterols are safe to use. However, safety data is presently lacking for pregnant and breastfeeding women. Also, there are no long-term studies showing the effects in children who consume these products.

One potential concern about consuming plant sterol enriched margarine spreads is that they can lower blood levels of carotenoids and fat-soluble vitamins, which are important for good health. The CSIRO has shown that carotenoid concentrations can be maintained so long as you include **at least five serves of fruits and vegetables each day**, and **one of these is carotenoid-rich** e.g. carrots, sweet potatoes, pumpkin, tomato, apricots, spinach or broccoli.

FOOD AND NUTRITION TIPS

To lower high blood cholesterol and protect against heart disease:

- ▶ Eat a diet low in saturated fat and cholesterol (see fact sheet on 'high blood cholesterol')
- ▶ Include a minimum of five serves (and preferably seven) of fruits and vegetables daily, such as yellow, orange, dark green, red and purple types
- ▶ Select wholegrain breads and cereals
- ▶ If desired, and you are not pregnant or breastfeeding, use plant sterol enriched margarine spreads; Note - these can add nearly 20 g fat and more than 700 kJ daily, so you may need to compensate by reducing your fat intake from other foods. Also, look for 'light' versions of sterol spreads.
- ▶ Please remember, if you are already on cholesterol lowering medication, you should continue to take it while using sterol margarines.

Plant sterols are one strategy for lowering high blood cholesterol. For maximum results, also consume nuts, soy protein foods and soluble fibres (from foods such as oats, barley and psyllium husks) on a daily basis. Combined, these foods have been shown to lower LDL (the 'bad') cholesterol by 20-30 per cent!

The information contained in this leaflet is correct at the time of publication with every effort made to ensure that it follows the latest nutrition guidelines. Please consult your accredited Practising Dietitian (APD) or doctor for advice on your personal dietary requirements.

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- ✓ Subscribe to our **FREE**, quarterly food & nutrition newsletter, 'GOOD FOOD NEWS'.



- ✓ Talk with a qualified dietitian about any nutrition issue of interest to you.

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