

# PLANT STEROLS

It is the cholesterol lowering properties of plant sterols and stanols that is making them appealing for people with high cholesterol.

## WHAT ARE PLANT STEROLS?

Plant sterols occur naturally in small amounts in fruits, vegetables, nuts, seeds, cereals, legumes, vegetable oils and other plants. They are similar in structure to cholesterol but cannot be made by the body and are a better option. Stanols occur in smaller quantities in vegetable oils, beans and corn<sup>1</sup>.

## WHERE DO YOU FIND PLANT STEROLS?

Plant sterols only occur in small amounts in plant based foods. The challenge of incorporating larger amounts of sterols and stanols into the diet has been overcome in recent years by being able to add them to fat containing foods like margarines<sup>1</sup>. Recently, our food regulators allowed plant sterols to be added to low fat milks, low fat yogurts and breakfast cereals<sup>2</sup>.

## HOW DO PLANT STEROLS BENEFIT YOUR HEALTH?

When adequate amounts of sterols are eaten, they interfere with the absorption of cholesterol. This means less cholesterol is absorbed into the body, resulting in lower blood cholesterol levels<sup>3</sup>.

The Heart Foundation recommends eating sterols and stanols to help lower cholesterol. This approach is complimentary to eating a healthy diet that is low in saturated fat and high in fibre. It is also considered an optional addition to drug therapy<sup>3</sup>.

Plant sterols do not provide additional benefits when consumed in excess of 3g per day<sup>2</sup>.

## HOW MUCH DO YOU NEED IN YOUR DIET?

The Western diet does not provide enough plant sterols to have a cholesterol lowering affect. The Heart Foundation recommends an intake of 2-3g of plant sterols or stanols a day to help reduce cholesterol levels by around ten percent in patients with elevated cholesterol levels<sup>3</sup>. Studies show that this can reduce the risk of coronary heart disease by up to twenty percent<sup>4</sup>.

It is important to note that eating foods enriched with plant sterols is recommended for adults watching their cholesterol levels and therefore are not suitable for children under five years<sup>2</sup>. Plant sterols have not been tested specifically in pregnant or lactating women and therefore are not recommended for this group<sup>2</sup>.

## Fact sheet



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# PLANT STEROLS (continued)

## Fact sheet

Remembering that you need to eat 2-3g of plant sterols a day, the table below helps you work out different ways to achieve these using sterol-enriched foods.



**Table 1:** Sources of sterol-enriched products on the market

Serve of sterol enriched food	Amount of plant sterol per serve*
200g yogurt	0.8g
1tbsp margarine	2.0g
250mL milk	0.8g

\*You need a total of 2-3g of plant sterols a day to have a cholesterol lowering effect.

### NUTRITION TIP:

An additional serve of yellow/orange fruit or vegetables is recommended when choosing plant enriched foods<sup>3</sup>. This is because plant sterols can reduce beta-carotene levels in the body.

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### References

1. Functional foods fact sheet: Plant sterols and stanols. <http://www.ific.org/publications/factsheets/sterolfs.cfm?renderforprint=1>. April 2003.
2. Plant sterols and formulated beverages. <http://www.foodstandards.gov.au/newsroom/mediareleases/mediareleases2006/plantsterolsandformu3401.cfm>
3. Information from the Heart Foundation: Plant sterols and stanols. August 2003.
4. Tolonen H et al. Pervelance, awareness and treatment of hypercholesterolaemia in 32 populations: results from the Who Monica Project. Int J Epidemiol 2005;34(1):181- 192.

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