



British Heart
Foundation

Plant sterols and stanols

What are plant sterols and stanols?

Sterols and stanols are naturally found in a range of plant sources including vegetable oils, grain products such as **breads** and **cereals**, **nuts**, **seeds**, **fruits** and **vegetables**.

In combination with a balanced diet, eating foods that provide you with **2–2.5g of plant sterols or stanols every day** can have an **additional cholesterol-lowering benefit**.

A healthy diet only provides a modest intake of sterols and stanols (**160–400mg/day**).

As a result sterols and stanols have been added to certain foods, including margarines, spreads, soft cheeses and yoghurts.

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How do they work?

Plant sterols and stanols have a similar chemical structure to cholesterol and are thought to decrease the absorption of cholesterol in our intestine.

This reduction in cholesterol absorption increases our liver's uptake of LDL cholesterol and as a result can reduce our blood LDL cholesterol levels.

They seem to have no effect on the heart-friendly HDL cholesterol levels or triglycerides.

Taking plant sterols and stanols

Can I take sterol or stanol products with cholesterol lowering medication?

Sterols and stanols have been added to certain foods. These products are safe for people taking cholesterol lowering medication such as statins and fibrates. As they work in different ways to reduce cholesterol, the effect can be cumulative. They are not a replacement for any cholesterol lowering medication - and if you are already taking medication to help lower your cholesterol, you should inform your doctor before you start taking them.

Can anybody take plant sterol or stanols?

Plant stanols and sterols are not recommended for young children (under five years old), breastfeeding or pregnant women.

Heart Helpline

Our cardiac nurses and information support officers are here to answer your questions and give you all the heart health information and support you need.

Call us on 0300 330 3311

Similar cost to 01 or 02 numbers.
Lines are open 9am - 5pm Monday to Friday.

This information does not replace the advice that your doctor or nurse may give you. If you are worried about your heart health in any way, contact your GP or local healthcare provider.

Sterol enriched foods

What reduction in cholesterol can be achieved by eating sterol enriched foods?

The effect varies between individuals, but there is evidence to show that plant sterols and stanols can help to reduce LDL cholesterol by levels up to 10-15% when 2g/day is regularly consumed as part of a healthy balanced diet.

However, these products are not a substitute for a healthy balanced diet or a replacement for cholesterol lowering drugs. **Whilst there is an expectation that their cholesterol lowering effect will lead to fewer heart attacks, there is no evidence to show this. You'll still need to make changes to your diet and lifestyle to help reduce your cholesterol levels and your overall risk of coronary heart disease.**

If you decide to use these products make sure you follow the manufacturer's instructions on the amounts you need to consume each day to provide you with 2g of the plant sterol or stanol. To sustain LDL-cholesterol reductions from these products, you need to eat them daily.

How much do I need to get 2g?

There are two ways to achieve the 2g a day stanol or sterol/ recommendations:

- **2-3 portions of a combination of the following:**
 - spread (10-12g, which is enough for 1-2 slices of bread)
 - yoghurt (125g)
 - milk (250ml)
 - cheese (20g)

Or

- **1 mini yoghurt or dairy free drink, which contain all the recommended 2g/day**

You do not need to consume more than the recommended amount. There are no significant additional cholesterol lowering benefits over 2.5g stanol or sterol and it's advised that you don't consume more than 3g per day.