

## Phytosterols and LDL Cholesterol

Phytosterols are plants steroid alcohols which act to inhibit cholesterol absorption in the gastrointestinal tract (GIT). By inhibiting the absorption of cholesterol in the GIT, the enterohepatic recycling of cholesterol is also interrupted; this in turn can contribute to a decrease in serum low density lipoprotein (LDL) cholesterol levels.<sup>1</sup>

The effect of plant sterols on LDL cholesterol has been well recognised for over 50 years. Equally well recognised is the link between elevated levels of LDL cholesterol and cardiovascular events.<sup>2</sup> In light of this, the Food and Drug Administration (FDA) in the United States have granted plant sterols a conditional health claim for the prevention of cardiovascular disease.

A recently published meta-analysis of 41 well controlled published studies has shown that a dose of 2g daily of phytosterols can result in a reduction of LDL cholesterol of up to 10%. The study also indicated that dosage above this level had little or no further improvement in LDL cholesterol levels.<sup>3</sup>

### References

---

<sup>1</sup> Yoshida M, Vanstone CA, Parsons WD, Zawistowski J, Jones PJ.  
Eur J Clin Nutr 2006 Apr;60(4):529-537.

<sup>2</sup> Katan MB, Grundy SM, Jones P, Law M, Miettinen T, Paoletti R, et al.  
Mayo Clin Proc 2003 Aug;78(8):965-978.

<sup>3</sup> McPherson TB, Ostlund RE, Goldberg AC, Bateman JH, Schimmoeller L, Spilburg CA.  
Pharmacol 2005 Jul;57(7):889-896.