

Garlic and onions may reduce cholesterol gallstones: Study



By Stephen Daniells, 27-Nov-2008

Consumption of garlic and onions may reduce the incidence of cholesterol gallstone formation by as much as 40 per cent, says a new study from India.

Consumption of a cholesterol-rich diet led to the formation of cholesterol **gallstones** (CGS) in mice, but supplementation of this diet with **garlic** and onion reduced the incidence of the gallstones, according to findings published online in the *British Journal of Nutrition*.

Researchers from India's Central Food Technological Research Institute (CSIR) in Mysore also report that garlic and onion increased activity of two enzymes involved in cholesterol metabolism: cholesterol 7 α -hydroxylase and sterol 27-hydroxylase.

Eighty per cent of gallstones are cholesterol-related. They occur when cholesterol hardens and this then blocks bile ducts, according to the National Institute of Diabetes and Digestive and Kidney Diseases, National Institutes of Health. Symptoms include pain, nausea, and clay-coloured stools.

A diet high in cholesterol is reported to be a potential cause of gallstones. The Indian researchers, led by Satyakumar Vidyashankara, found that feeding mice a diet containing 0.5 per cent cholesterol for 10 weeks did indeed promote the formation of gallstones – a so-called lithogenic diet.

Mice were divided into groups – one group was fed the lithogenic diet, and the others fed the lithogenic diet supplemented with 0.6 and 2.0 per cent garlic and onion, respectively.

The incidence of gallstones in the latter group was found to be reduced by 15 to 30 per cent, said the researchers. Moreover, blood and liver cholesterol levels were reduced in the garlic and onion fed groups, compared to the group fed only the lithogenic diet.



"Dietary Allium spices exerted antilithogenic influence by decreasing the cholesterol hyper-secretion into bile and increasing the bile acid output thus decreasing the formation of lithogenic bile in experimental mice," concluded the researchers.



Source: British Journal of Nutrition Published online ahead of print, 5 November 2008, doi:10.1017/S0007114508118748 "Dietary garlic and onion reduce the incidence of atherogenic diet-induced cholesterol gallstones in experimental mice" Authors: S. Vidyashankara, K. Sambaiah, K. Srinivasana

