Information for healthcare professionals

FACT SHEET #5

OATS & CHOLESTEROL LOWERING

TAKEN FROM Oats FOR HEALTH

UNCLE TOBYS

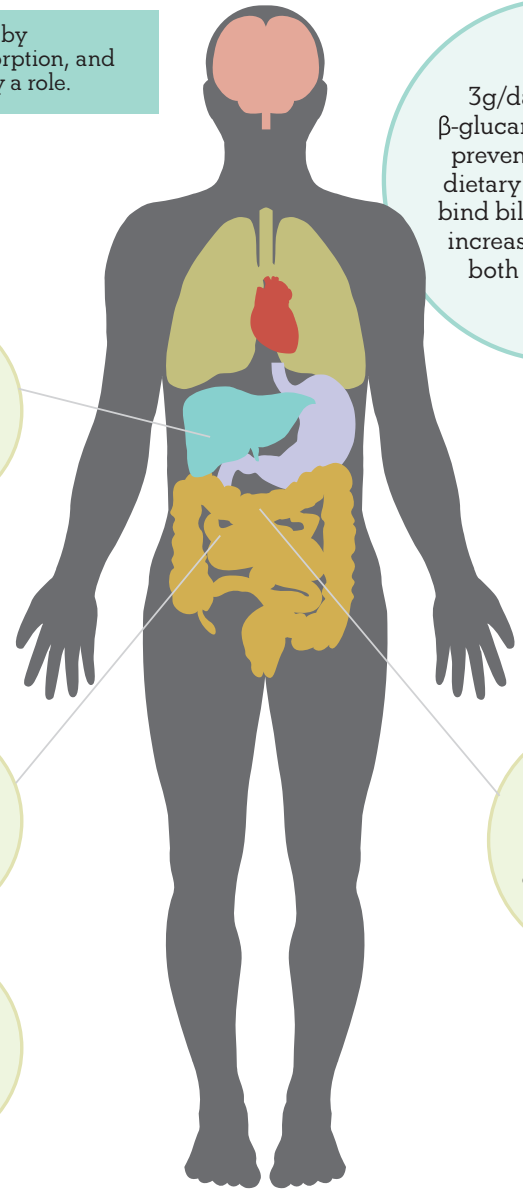
High circulating LDL cholesterol is one of the most common markers of cardiovascular disease risk used in clinical practice, and people with high LDL cholesterol are often given drugs and/or advised to adapt their diet to eat more foods that can lower cholesterol. As no drugs are without side effects, the latter option can be especially attractive in cases of people with a family history of cardiovascular disease or mildly elevated LDL cholesterol, who wish to take proactive preventative measures.

BETA-GLUCANS IN OATS HELP LOWER CHOLESTEROL LEVELS

Oats contain high amounts of a soluble fibre called β-glucan. β-glucan is not digested, but forms a gel inside the intestines, which both inhibits the absorption of dietary cholesterol and binds bile acids that are secreted to solubilise the fats that we eat. Bile acids are synthesised from cholesterol in the liver, so losing bile acids through their binding to β-glucan, leads to more liver cholesterol being used for synthesising new bile acids. This double action of preventing cholesterol absorption and increasing internal cholesterol turnover has the concrete action of reducing the amount of cholesterol transported throughout the body (i.e. LDL-cholesterol).

Overall evidence that eating a significant amount of oats and β-glucan from oats each day lowers blood cholesterol is strong. Alongside the general recommendation to choose whole grains over refined grains[1], regular consumption of oats is a scientifically supported way of reducing risk for cardiovascular disease.

Oats reduce cardiovascular risk by interfering with cholesterol absorption, and other mechanisms may also play a role.



3g/day or more of β-glucans from oats will prevent absorption of dietary cholesterol and bind bile acids, causing increased excretion of both in the faeces.

Cholesterol from the diet or made in the liver is used to make bile acids.

Bile acids are secreted into the small intestine to solubilise dietary fat.

Bile acids are bound to β-glucans and excreted.

β-glucans in the colon are fermented to short chain fatty acids, which may decrease cholesterol synthesis in the liver.

Source: OATS FOR HEALTH (2014) Oats & Cholesterol Lowering - Dr Alastair Ross, Chalmers University of Technology, Gothenburg, Sweden
Reference: 1. National Health and Medical Research Council (2013). Australian Dietary Guidelines. Canberra: National Health and Medical Research Council.

For a copy of Oats for Health (2014) email **anne-marie.mackintosh@au.nestle.com**