

Will increasing the amount of fibre in your diet help prevent cardiovascular disease?

Vanessa Jordan PhD

New Zealand Cochrane
Fellow, University of
Auckland, Auckland,
New Zealand

COCHRANE REVIEW: Hartley L, May MD, Loveman E, Colquitt JL, Rees K. Dietary fibre for the primary prevention of cardiovascular disease. Cochrane Database of Systematic Reviews 2016, Issue 1.

THE PROBLEM: Cardiovascular disease (CVD) has been identified by the world Health organisation (WHO) as the leading cause of death worldwide.¹ Increased intake of dietary fibre has been purported to have a beneficial effect on CVD risk factors.² The exact mechanism of action for dietary fibre has not been fully identified but it is thought to be associated with the slowing of gastric emptying, increased small intestine movement and control of nutrient absorption.³

CLINICAL BOTTOM LINE: Authors of this systematic review have shown that by increasing the intake of fibre there is a beneficial reduction in total cholesterol and LDL cholesterol and diastolic blood pressure in short-term trials. However, none of the evidence that was found looked at long-term outcomes and so there is currently no evidence on whether these reductions would subsequently decrease CVD events.

	Success	Evidence	Harms
Total cholesterol	The fibre group showed significantly lower total cholesterol levels comparative to the controls.	This was based on 17 trials.	Gastrointestinal side effects flatulence, constipation, nausea, bloating and diarrhoea were more commonly reported in the fibre groups in 7 studies. 4 trials reported no differences in gastrointestinal side effects. And 1 trial reported no adverse effects for either group.
HDL cholesterol	HDL levels were slightly decreased in those with higher fibre intake favouring the control population.	This was based on evidence from 15 trials.	
LDL cholesterol	There was a significant decrease of 27% in the fibre group.	This was based on 15 studies.	
Triglycerides	There was no evidence to show that the fibre and control groups differed in levels of triglycerides.	This was based on 15 studies.	
Systolic blood pressure	There was no difference shown between the groups for this outcome.	This was based on 8 studies.	
Diastolic blood pressure	Diastolic blood pressure was shown to be significantly lower in the fibre group.	This was based on 8 studies.	

References

1. World Health Organisation. Cardiovascular diseases. Fact sheet number 317 January 2015. Available from: <http://www.who.int/mediacentre/factsheets/fs317/en/>
2. Saltzman E, et al. An oat-containing hypocaloric diet reduces systolic blood pressure and improves lipid profile beyond effects of weight loss in men and women. J Nutr. 2001;131(5):1465–70.
3. Hartley L, et al. Dietary fibre for the primary prevention of cardiovascular disease. Cochrane Database of Systematic Reviews, 2016(1).

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CORRESPONDENCE TO:
Vanessa Jordan
v.jordan@auckland.ac.nz

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