

FACT SHEET FOR PROFESSIONALS

BREAKFAST CEREALS AND HEART HEALTH

Breakfast cereals play an important role in delivering the health benefits of grain foods to Australians.

Regular consumption of breakfast cereal, especially whole grain or high fibre varieties, is associated with:

- **reduced risk of cardiovascular disease (CVD),**
- **improved modifiable risk factors for CVD: serum cholesterol; overweight and obesity; type 2 diabetes, and**
- **reduced risk of premature death from heart disease**

Reduced risk of CVD

The evidence for the association between breakfast cereal and cardiovascular disease has been examined by several large scientific reviews, including the *Australian Dietary Guidelines*. In summary:

- regular consumption of whole grain breakfast cereals is associated with a reduced risk of cardiovascular disease (Grade C)¹
- consumption of cereal foods (especially whole grains and those with fibre from oats or barley) is associated with a reduced risk of cardiovascular disease in adults (Grade B)²
- consumption of one to three serves per day of whole grain cereals is associated with reduced risk of cardiovascular disease (Grade B),² and
- consumption of whole grain cereals may reduce the risk of cardiovascular disease by up to 29%.³

Reduced serum cholesterol

The relationship between soluble fibre and reduced cholesterol levels has been well established:

- regular consumption oat-, barley- or psyllium-based breakfast cereals (cereals rich in soluble fibre) can help lower total and LDL cholesterol levels (Grade A).¹

Lower BMI; reduced risk overweight and obesity

The totality of evidence suggests that regular breakfast cereal consumption is associated with lower body weights. In summary:

- regular breakfast cereal consumption is associated with a lower BMI and a reduced risk of being overweight or obese in both adults and children (Grade B)¹
- eating breakfast cereal as a snack or meal replacement can assist in weight loss in adults (Grade B),¹ and
- consumption of high-fibre breakfast cereals improves satiety and reduces hunger after a meal (Grade C).¹

Reduced risk type 2 diabetes

Consuming breakfast cereals rich in whole grains and soluble fibre can improve blood glucose levels and may reduce the risk of developing type 2 diabetes:

- regular consumption of whole grain and high-fibre breakfast cereals is associated with a reduced risk of type 2 diabetes (Grade B)¹
- consumption of high-fibre breakfast cereals, especially those high in soluble fibre, may assist in the management of hyperglycaemia in people with diabetes (Grade C)¹
- consumption of cereal foods (especially three serves a day of whole grains) is associated with reduced risk of type 2 diabetes (Grade B),² and
- consumption of whole grain cereals may reduce the risk of type 2 diabetes by up to 27%.³

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Hypertension

The evidence base for breakfast cereal consumption and hypertension is limited to a few studies, however the current evidence indicates:

- regular consumption of breakfast cereals is not associated with an increased risk of hypertension (Grade C), and regular consumption may even reduce the risk (Grade D),¹ and
- breakfast cereals contribute very little (around 2%) to the sodium intakes of Australians and contribute more potassium than sodium.⁹

Reduced risk premature death CVD & all causes

Recent studies concluded:⁴⁻⁶

- people who consumed the greatest amount of cereal fibre had a 20% reduced risk of premature death from heart disease, and 19% reduced risk of premature death from all causes⁴
- the protective effects of whole grains may be due, at least in the main part, to its cereal fibre component,⁴ and
- consuming a high fibre diet has been consistently linked with a significant reduction in all-cause mortality.^{5,6}

Cereal fibre and whole grain benefits

- Adults are recommended to consume between 25-30g of fibre each day.⁷ An average 40g serve of ready-to-eat cereal, muesli or oats contains around 4g of fibre, with some higher fibre options containing upwards of 10g a serve,⁸ making breakfast cereals a valuable source of this important nutrient.
- Breakfast cereals are important dietary sources of whole grains with over 170+ breakfast cereals meeting the whole grain content claim criteria set by the Grains & Legumes Nutrition Council.⁸
- The 2011-12 Australian Health Survey shows breakfast cereals (ready-to-eat and hot porridge styles) provide 10.6% of fibre intakes per capita for Australians 2 years and over, while contributing very little towards kilojoules (energy 4.6%), total sugars (3.4%) and sodium (around 2%) intakes.⁹

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References

- 1 Williams PG. The Benefits of Breakfast Cereal Consumption: A Systematic Review of the Evidence Base. *Advances in Nutrition* 2014; **5**: 636S-673S.
- 2 National Health and Medical Research Council. Australian Dietary Guidelines. Canberra: NHMRC; 2013. (Also available from: <http://www.eatforhealth.gov.au/guidelines>, accessed 9 June 2015).
- 3 Fardet A, Boirie Y. Associations between food and beverage groups and major diet-related chronic diseases: an exhaustive review of pooled/meta-analyses and systematic reviews. *Nutrition Reviews* 2014; **72**: 741-762.
- 4 Huang T, Xu M, Lee A, Cho S, Qi L. Consumption of whole grains and cereal fiber and total and cause-specific mortality: prospective analysis of 367,442 individuals. *BMC Medicine* 2015; **13**: 59 DOI 10.1186/s12916-015-0294-7.
- 5 Buil-Cosiales P, Zazpe I, Toledo E *et al*. Fiber intake and all-cause mortality in the Prevención con Dieta Mediterránea (PREDIMED) study. *American Journal of Clinical Nutrition* 2014; **100**(6):1498-507.
- 6 Kim Y, Je Y. Dietary Fiber Intake and Total Mortality: A Meta-Analysis of Prospective Cohort Studies. *American Journal of Epidemiology* 2014; **180**(6): 565-73.
- 7 National Health and Medical Research Council and New Zealand Ministry of Health. Nutrient Reference Values. Canberra: NHMRC; 2006. (Also available from: <https://www.nrv.gov.au/nutrients/dietary-fibre>, accessed 9 June 2015).
- 8 Grains & Legumes Nutrition Council (GLNC). 2014 Grains and Legumes Product Audit. Unpublished: 2014.
- 9 Australian Bureau of Statistics. Australian Health Survey: Nutrition First Results - Foods and Nutrients, 2011-12. Canberra: ABS; 2014. (Also available from: <http://www.abs.gov.au/ausstats/abs@.nsf/Lookup/4364.0.55.007main+features12011-12>, accessed 9 June 2015).

Interpreting evidence grades

According to NHMRC guidance, Grade A evidence is to be trusted to guide clinical practice, Grade B is to be trusted to guide practice in most situations, Grade C provides some support but care should be taken in its application, and Grade D is suggestive, where the body of evidence is weak and therefore the statement should be applied with caution.

About the Australian Breakfast Cereal Manufacturers Forum (ABCMF)

The ABCMF provides evidence-based, practical information so Australians can have a better understanding of the true value of breakfast cereals and breakfast as part of a healthy lifestyle. The ABCMF is a forum of the Australian Food and Grocery Council.

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Connect with ABCMF for the latest information on breakfast cereals:

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