A Systematic Review of Evidence on

The Role of Ready-to-Eat Cereals in Diet and Non-Communicable Disease Prevention

Published on 15 May 2025, Nutrients Journal, E.J. Derbyshire and C.H.S Ruxton

What is this document

This Executive Summary provides a high-level overview of the findings of the Systematic Review of Evidence on the Role of Ready-to-Eat Cereals in Diet and Non-Communicable Disease Prevention. This peer-reviewed article was published in Nutrients, a peer-reviewed open-access scientific journal publishing reviews, regular research papers, and short communications on all aspects of nutrition.

This Executive Summary has been prepared by CEEREAL, the association representing the European breakfast cereal and oat milling industry and consisting of 13 member companies and 7 national associations from 7 countries.

The key findings

Breakfast cereal consumption - especially whole grain and higher fibre breakfast cereals - is associated with:

1. **Improved nutritional intakes**
2. **A lower risk of cardiovascular disease in adults**
3. **A lower risk of type 2 diabetes in adults**
4. **A reduced risk of overweight and obesity across all age groups, including children, adolescents, and adults**

Further findings

There is consistent evidence that breakfast cereal consumption has positive effects on nutritional intakes and some health outcomes:

Nutritional implications

- Breakfast cereals can make a valuable contribution to nutrient intakes, including fibre, vitamins (B vitamins and D) and minerals (iron, zinc and magnesium).
- They can help bridge nutritional gaps for vulnerable populations, providing critical micronutrients like iron, B vitamins and vitamin D.
- Integrating whole grain and higher fibre breakfast cereals into daily diets can help increase intakes of fibre. For example, according to this review, they contribute between 7% and up to one fifth of daily dietary fibre for children and adolescents in the UK, Ireland, the US, and Canada. Adequate fibre and whole grain intake is crucial for maintaining digestive health and preventing chronic diseases; however, global consumption levels are often below recommended amounts.
- Fortification might also be used to enhance or add nutrients that are not normally present in breakfast cereals, such as vitamin D. This review highlighted the important contribution of breakfast cereals to vitamin D intakes. For example in the UK, breakfast cereals contributed 21%, 18% and 9% to the daily intake of vitamin D in children, adolescents and adults, respectively.

ceereal
European Breakfast Cereal Association

Health implications

- A review of three studies included within this newly published systematic review showed that people with the highest intake of breakfast cereals had a **10% lower risk of coronary heart disease (CHD) and a 8% lower risk of cardio-vascular disease (CVD[1])** compared to those who ate the least amount of breakfast cereals.
- Focusing specifically on whole grain breakfast cereals a review of three cohort studies found that people with the highest intake had a 2**8% lower risk of CHD** and a **26% lower risk of CVD.**[2]
- A review of a further three studies included in this newly published systematic review found that people with the highest intake of breakfast cereals had a **22% lower risk of Type 2 Diabetes**[3] compared to those who consumed little or no breakfast cereals.
- The consumption of breakfast cereal has also been associated with reduced body weight, reduced risk of overweight/obesity and lower BMI in children, teens and adults in two systematic reviews.

Sugar intake consideration

Consuming breakfast cereals may help reduce the risk of inadequate fibre and micronutrient intakes while they contribute 2–11% of daily sugar intake.

Robust evidence

These findings have been highlighted by the most recent review to investigate the role of ready-to-eat breakfast cereal consumption on nutrition and health outcomes, which evaluated 51 studies, including a combination of meta-analyses and systematic reviews. Notably, this review builds on the previous comprehensive systematic review conducted 10 years ago, providing updated insights and reinforcing earlier conclusions.

The quality of studies was rigorously graded using an externally recognised system from the Scottish Intercollegiate Network, ensuring credibility and reliability.

This comprehensive systematic review draws on diverse studies from academia, government, and manufacturers, providing a robust, understanding of how a simple dietary habit - eating breakfast cereals - can contrib-ute positively to public health.

It evaluated the contributions of ready-to-eat breakfast cereals to daily nutrient intakes for all age groups using data from seven national dietary intake surveys from 5 countries (USA, Canada, France, Ireland, the UK) over the past two decades (January 2004 to September 2024).

Conclusion

The author of the systematic review underlines that *"public health messages around ready-to-eat breakfast cereals should recognise that breakfast cereal especially whole grain, higher fibre and lower sugar varieties may help to reinforce micro-nutrient intakes and a range of health outcomes."*

ceereal
European Breakfast Cereal Association

Scan the QR code to read Systematic Review of Evidence on the Role of Ready-to-Eat Cereals in Diet and Non-Communicable Disease Prevention

For more information, please contact: Nina Elzer, Senior Manager Public Affairs & Communications - elzer@ceereal.eu

1: *Mendoza, K.; Smith-Warner, S.A.; Rossato, S.L.; Khandpur, N.; Manson, J.E.; Qi, L.; Rimm, E.B.; Mukamal, K.J.; Willett, W.C.; Wang, M.; et al. Ultra-processed foods and cardiovascular disease: Analysis of three large US prospective cohorts and a systematic review and meta-analysis of prospective cohort studies. Lancet Reg. Health Am. 2024, 37, 100859.* **2:** *Aune, D.; Norat, T.; Romundstad, P.; Vatten, L.J. Whole grain and refined grain consumption and the risk of type 2 diabetes: A systematic review and dose-response meta-analysis of cohort studies. Eur. J. Epidemiol. 2013, 28, 845–858..* **3:** *Chen, Z.; Khandpur, N.; Desjardins, C.; Wang, L.; Monteiro, C.A.; Rossato, S.L.; Fung, T.T.; Manson, J.E.; Willett, W.C.; Rimm, E.B.; et al. Ultra-Processed Food Consumption and Risk of Type 2 Diabetes: Three Large Prospective U.S. Cohort Studies. Diabetes Care 2023, 46.*