

Good news for serial cereal eaters

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Oat seeds. Credit: H. Zell/Wikipedia

A diet high in whole grains and cereal fibers is associated with a reduced risk of premature death, according to research published in the open access journal *BMC Medicine*. The results also show cereal fibers to be associated with reduced risk of deaths in varying degrees for chronic diseases including cancer, heart disease, respiratory disease and diabetes.

Whole grains are the entire seed of a plant that is used for food and contains the germ, bran and endospore, such as wheat, oat and quinoa. They are rich sources of [dietary fiber](#) and other nutrients such as minerals and antioxidants.

Researchers from Harvard Public School of Health led by Lu Qi analyzed the results of the NIH-AARP Diet and Health Study. This a large cohort study involving 566,339 members of AARP - a membership organization of people aged 50 and over - from the states of California, Florida, Louisiana, New Jersey, North Carolina and Pennsylvania, and the metropolitan areas of Georgia and Detroit.

In 1993, the cohort participants were sent a questionnaire to gather information on their health and diet - based on frequency of intake for various food types including portion size. Participants who indicated in their initial questionnaires that they had cancer, [heart disease](#), stroke, diabetes or end-stage renal disease were excluded from the study. This meant a total of 367,442 participants were included in this particular research. Those who participated were followed for an average of 14 years.

The researchers found that consumption of an average 1.2 ounces (34 grams) of whole grains per 1000 kcal per day was associated with a 17% reduced risk of [premature death](#) compared to those consuming an average of 0.13 ounces (3.98 grams) per 1000 kcal per day. Even when they accounted for factors such as health status, physical activity and obesity status the reduction remained the same. They found that consuming an average of 0.4 ounces (10.22 grams) per 1000 kcal of cereal fibers a day was associated with a 19% reduced overall risk of death compared to those consuming an average 0.07 ounces (2.02 grams) per 1000 kcal per day.

When broken down for individual chronic diseases the research reveals

surprising information. High whole grains consumption was associated with an 11% and 48% reduced risk of death from respiratory disease and diabetes, respectively. Whereas a high consumption of cereal fibers had a 15% and 34% reduced risk of mortality from cancer and diabetes, respectively.

After the researchers adjusted for cereal fiber in a model that examined the relationships among multiple variables, the benefits of whole grains either disappeared or were reduced. This suggests that the cereal fiber component of whole grains accounts for the actions of the whole grains, and that cereal fiber rich whole grain foods may have health benefits.

As this is an observational study it is not possible to confirm that whole grains and fiber are causing this [reduced risk](#). But the team believes the cereal fiber found in both food types - cereal fiber and whole grains - may have protective effects thanks to multiple protective properties such as anti-inflammation. Further studies are needed to confirm if this is in fact the case.

Lu Qi says: "Our study indicates that intake of whole [grains](#) and cereal fiber may reduce the risk of all-cause mortality and death from [chronic diseases](#) such as cancer, heart disease, diabetes, and respiratory disease. Our findings should motivate future studies especially clinical trials and experimental studies to further testify the beneficial effects of [whole grains](#) and potential effective components such as fiber and other nutrients, and explore mechanisms."

More information: Consumption of whole grains and cereal fiber and total and cause-specific mortality: prospective analysis of 367,442 individuals , Tao Huang, Min Xu, Albert Lee, Susan Cho and Lu Qi , *BMC Medicine* 2015 . [DOI: 10.1186/s12916-015-0294-7](https://doi.org/10.1186/s12916-015-0294-7)

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