

# Lactose intolerants at lower risk of certain cancers, according to study

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People with lactose intolerance are at lower risk of suffering from lung, breast and ovarian cancers, according to a new study by researchers at Lund University and Region Skåne in Sweden.

"We found that people with lactose intolerance, who typically consume low amounts of milk and other [dairy products](#), have a reduced risk of lung, breast and ovarian cancers", says Jianguang Ji, Associate Professor at Lund University and researcher at the Center for Primary Care Research in Malmö.

"The risk of cancer was not reduced in relatives of people with lactose intolerance, which indicates that protection against these cancers is related to diet. However, it would be wrong to conclude that milk is a risk factor for these cancers", emphasises Jianguang Ji.

There are large differences in the incidence of breast and ovarian cancers between different countries. Their incidence is highest in North America, Western Europe and the Nordic countries, and lowest in East Asia and Central African countries. Studies of immigrants and twins suggest this worldwide variation is more down to environmental factors than to genetic or ethnic factors.

Lifestyle factors such as high consumption of milk and other dairy products have been suspected to contribute to the high incidence of breast and ovarian cancers in North America and Western Europe. However, previous studies are inconclusive. One recent review by the World Cancer Research Fund and the American Institute of Cancer Research found a lack of evidence linking consumption of dairy products to breast cancer risk.

"In order to investigate this unanswered question we adopted a novel approach", says Jianguang Ji. "We investigated whether low consumption of milk

and other dairy products protects lactose-intolerant people against breast and ovarian cancers. Since epidemiological and animal studies show that milk consumption and [lung cancer](#) risk are both associated with the protein IGF-1 (insulin like growth factor 1), we also investigated lung cancer."

"Using nationwide data from two Swedish registers (the Inpatient Register and the Outpatient Register) we identified 22,788 individuals with lactose intolerance and examined their risk of suffering from lung, breast and [ovarian cancers](#). The risks of lung cancer (standardised incidence ratio [SIR] = 0.55), breast cancer (SIR = 0.79) and ovarian cancer (SIR = 0.55) were significantly lower in people with lactose intolerance compared to people without lactose intolerance, irrespective of country of birth and gender", explains Jianguang Ji. "By contrast, the risks in their siblings and parents were the same as in the general population. This suggests that the lower [cancer risk](#) in people with lactose intolerance may be due to their diet."

Factors such as lower calorie intake of because of low [milk consumption](#) and protective factors in plant-based [milk](#) drinks may contribute to the observed negative association between [lactose intolerance](#) and the studied cancers.

"We must interpret these results with caution because the association we found is insufficient to conclude a causative effect", emphasises Jianguang Ji. "Further studies are needed to identify factors that explain the study's results."

**More information:** "Lactose intolerance and risk of lung, breast and ovarian cancers: aetiological clues from a population-based study in Sweden." *British Journal of Cancer*, (14 October 2014) [DOI: 10.1038/bjc.2014.544](https://doi.org/10.1038/bjc.2014.544)

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