

Genetic predisposition to breast cancer due to non-brca mutations in ashkenazi Jewish women

20 July 2017

Genetic mutations in BRCA1 and BRCA2 increase the risk of breast and ovarian cancer in Ashkenazi Jewish women. A new article published by *JAMA Oncology* examines the likelihood of carrying another cancer-predisposing mutation in BRCA1, BRCA2 or another breast cancer gene among women of Ashkenazi Jewish ancestry with breast cancer who do not carry one of the founder mutations.

Mary-Claire King, Ph.D., of the University of Washington, Seattle, and coauthors sequenced genomic DNA of 1,007 women of Ashkenazi Jewish ancestry with [breast cancer](#) for known and candidate [breast cancer genes](#).

Of the 1,007 patients in the study, 903 had none of the three founder mutations in BRCA1 or BRCA2. Of those 903 patients, seven (0.8 percent) carried a different mutation in BRCA1 or BRCA2 and 31 (3.4 percent) carried a damaging mutation in another breast cancer gene, according to the results.

The study notes two limitations, including that only genes known or suspected to harbor mutations increasing the risk of breast cancer were sequenced.

"Ashkenazi Jewish patients with breast cancer can benefit from genetic testing for all breast cancer genes," the article concludes.

More information: *JAMA Oncology* (2017). [DOI: 10.1001/jamaoncol.2017.1996](https://doi.org/10.1001/jamaoncol.2017.1996)

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APA citation: Genetic predisposition to breast cancer due to non-brca mutations in ashkenazi Jewish women (2017, July 20) retrieved 3 August 2022 from <https://medicalxpress.com/news/2017-07-genetic->

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