

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

July 20 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)

Provided by The JAMA Network Journals

Citation: Genetic predisposition to breast cancer due to non-brca mutations in ashkenazi Jewish women (2017, July 20) retrieved 20 November 2023 from <https://medicalxpress.com/news/2017-07-genetic-predisposition-breast-cancer-due.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.