

The Risk of Ovarian Cancer after Breast Cancer in *BRCA1* and *BRCA2* carriers.

Metcalfe K, et al. *Gynecologic Oncology* 2005; 96:222-226.

Women who carry mutations in BRCA1 and BRCA2 are at dramatically increased risk for developing breast and ovarian cancer. Some women with these mutations will develop both breast and ovarian cancer. The following article estimates the risk for developing ovarian cancer after breast cancer in individuals with BRCA1 or BRCA2 mutations.

Purpose:

To estimate the risk of ovarian cancer after breast cancer in *BRCA1* or *BRCA2* mutation carriers, examine whether breast cancer treatment modalities modify this risk and quantify the relative contribution of breast and ovarian cancer to death rates in this population.

Design and Methods:

Four hundred ninety-one women diagnosed with stage I or stage II breast cancer from families with an identified *BRCA1* and/or *BRCA2* mutation were studied. They were followed from initial diagnosis of breast cancer to either oophorectomy, diagnosis of ovarian cancer, death from any cause, or their last follow-up. Information about treatment modality and survival rates were also gathered on these patients.

Results:

The twenty-year cumulative risk of ovarian cancer is approximately 35% for *BRCA1* and approximately 13% for *BRCA2*. This represents at least a ten-fold increase in ovarian cancer risk compared to women with non-familial breast cancer.¹

Cumulative Risk of Ovarian Cancer Following Breast Cancer

	BRCA 1	BRCA 2
10-year	12.7%	6.8%
20-year	~ 35%	~13%

- The mean age at ovarian cancer diagnosis was 51.7 years and the mean period of time from breast cancer to ovarian cancer was 8.1 years.
- In women diagnosed with Stage I breast cancer, 25% of deaths were due to ovarian cancer.
- In 43 of 46 women, ovarian cancer could have been prevented with knowledge of *BRCA1/2* status and subsequent oophorectomy.

Conclusion:

The risk of ovarian cancer following breast cancer in women with *BRCA1* and/or *BRCA2* mutations is increased significantly. Knowing a woman's mutation status allows for appropriate medical management options to be discussed and the chance to prevent further ovarian cancer in these patients.

BRACAnalysis®

A test for Hereditary Breast and Ovarian Cancer (HBOC) syndrome

A predictive medicine product for hereditary breast and ovarian cancer.

BRACAnalysis® testing assesses a woman's risk of developing hereditary breast or ovarian cancer based on detection of mutations in the *BRCA1* and *BRCA2* genes. This test has become the standard of care in identification of individuals with hereditary breast and ovarian cancer.



MYRIAD®

Myriad Genetics GmbH
Leutschenbachstrasse 95
8050 Zurich
Switzerland

www.myriad.com