

Women often opt to surgically remove their breasts, ovaries to reduce cancer risk

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Many women at high risk for breast or ovarian cancer are choosing to undergo surgery as a precautionary measure to decrease their cancer risk, according to a report in *Cancer Epidemiology, Biomarkers & Prevention*, a journal of the American Association for Cancer Research.

"[Women](#) have their breasts or ovaries removed based on their risk. It does not always happen immediately after counseling or a genetic test result and can take more than seven years for patients to decide to go forward with surgery," said lead researcher D. Gareth Evans, M.D. Evans is a consultant in clinical genetics at the Genesis Prevention Center, University Hospital of South Manchester NHS Trust and a professor at the University of Manchester, United Kingdom.

Evans and colleagues assessed the increase in risk-reduction surgery among women with [breast cancer](#) and evaluated the impact of cancer risk, timing and age.

Rate of increase was measured among 211 women with known unaffected BRCA1 or BRCA2 mutation carriers. BRCA1 and BRCA2 are hereditary gene mutations that indicate an increased risk for developing breast cancer. Additionally, more than 3,500 women at greater than 25 percent lifetime risk of breast cancer without mutations also had a documented increase in risk-reduction surgery.

Women who had a biopsy after undergoing risk evaluation were twice as likely to choose a risk-reducing mastectomy. Forty percent of the

women who were mutation carriers underwent bilateral risk-reducing mastectomy; 45 percent had bilateral risk-reducing salpingo-oophorectomy (surgical removal of ovaries). These surgeries are widely used by carriers of BRCA1 and BRCA2 gene mutations to reduce the risk for breast and [ovarian cancer](#).

Evaluated by gene type, bilateral risk-reducing salpingo-oophorectomy was more common in women who were BRCA1 gene carriers — 52 percent had the surgery compared with 28 percent of the women who were BRCA2 gene carriers.

"We found that older women were much less likely to have a mastectomy, but were more likely to have their ovaries removed," said Evans.

Most of the women, specifically those aged 35 to 45 years, opted for surgery within the first two years after the genetic mutation test, but some did not make a decision until seven years later.

"This is a very interesting study. It fleshes out some of what we know about adoption of risk reduction strategies in high-risk women who have participated in a very comprehensive and well thought-out genetic counseling, testing and management program," said Claudine Isaacs, M.D., an associate professor of medicine and co-director of the Fisher Center for Familial Cancer Research, Lombardi Comprehensive Cancer Center at Georgetown University.

BRCA1 and BRCA2 mutation carriers have a very high lifetime risk of cancer, and for BRCA1 carriers there are unfortunately no clearly proven non-surgical prevention strategies, according to Isaacs. These women face a 50 to 85 percent lifetime risk of breast cancer, and mastectomy is currently the most effective prevention method available.

The findings confirm the expectations that when a woman has a biopsy, even if benign, most are more likely to opt for risk-reduction surgery.

"Screening should be conducted at a place with expertise in an effort to minimize false-positive results, which often lead to biopsy. This will minimize the anxiety that comes along with such a diagnosis. Patients should consult with an expert in advance and stay in contact with them to see how the science may be changing over time," she advised. "This is an ongoing conversation that needs to be addressed and individualized for each patient."

Likewise, Evans suggested that additional studies are needed to help evaluate the communication efforts and methods between doctors and/or counselors and women at risk for breast cancer. Questions to be raised should include how is the communication method occurring, are the doctors sympathetic and is there an ongoing dialogue?

"Careful risk counseling does appear to influence women's decision for surgery although the effect is not immediate," the researchers wrote.

Source: American Association for Cancer Research ([news](#) : [web](#))

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