

Mutation of BRCA gene influences women's views of preventive mastectomy

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Women whose cells harbor harmful mutations in the BRCA genes are likely to view preventive mastectomy as the best way to reduce their risk and fears of developing breast cancer, despite other, less drastic options available. That is the conclusion of a new study published in the April 1, 2009 issue of *CANCER*, a peer-reviewed journal of the American Cancer Society. The study's findings could help physicians and other clinicians as they discuss test results with women who undergo BRCA gene testing.

Women at high risk for developing breast [cancer](#) have several options to help safeguard against the disease. Risk management for [women](#) with a known deleterious mutation in either the [BRCA1](#) or [BRCA2](#) genes has included frequent screening with mammogram, breast MRI, and clinical breast exams, tamoxifen therapy, and risk reduction surgeries including prophylactic mastectomy. To get a sense of women's opinions regarding those options, particularly frequent screening versus prophylactic mastectomy, researchers led by Jennifer K. Litton, M.D., of The University of Texas M. D. Anderson Cancer Center in Houston surveyed women at their institution who underwent BRCA1 and BRCA2 [genetic testing](#). When mutated, BRCA1 and BRCA2 are known to elevate the risk for the development of [breast cancer](#).

Of the 312 women surveyed, 86 had tested positive for a BRCA mutation. Seventy percent of the women who tested positive for a BRCA mutation felt that [preventive mastectomy](#) was the most effective way to reduce their risk of developing breast cancer, compared with 40 percent

of women who tested negative for a BRCA mutation. Similarly, 64.7 percent of BRCA positive women felt that preventive mastectomy was the only way to reduce their worry, compared with 34.4 percent of BRCA negative women.

The investigators found that about eight out of ten women (81 percent) who viewed preventive mastectomy as the best way to reduce [cancer risk](#) decided to undergo the procedure. A similar number of those who felt that preventive mastectomy was the only way to reduce worry underwent the procedure (84.2 percent).

The survey also revealed that none of the women who tested positive for a BRCA mutation and 5.4 percent of BRCA negative women felt that mammograms were difficult to get because the procedure was too uncomfortable.

The researchers concluded that women's opinions regarding preventive mastectomy and their ultimate choice to undergo the procedure were highly dependent upon their BRCA genetic testing results. "Health care providers and genetic counselors must take this into account when assessing a woman's needs at the time of genetic testing and results disclosure," the authors wrote.

More information: "Perception of screening and risk-reduction surgeries in patients tested for a BRCA deleterious mutation." J.K. Litton, S.N. Westin, K. Ready, C.C. Sun, S.K. Peterson, F. Meric-Bernstam, A.M. Gonzalez-Angulo, D.C. Bodurka, K.H. Lu, G.N. Hortobagyi, and B.K. Arun. *CANCER*; Published Online: March 9, 2009 (DOI: 10.1002/cncr.24119); Print Issue Date: April 15, 2009.

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