
CANCER FACTS

National Cancer Institute • National Institutes of Health
Department of Health and Human Services

Preventive Mastectomy

Preventive mastectomy (also called prophylactic mastectomy) is the surgical removal of one or both breasts in an effort to prevent or reduce the risk of breast cancer. Total mastectomy, an operation to remove the entire breast and nipple, is the procedure of choice. Subcutaneous mastectomy, an operation to remove the breast tissue but spare the nipple, is recommended less often because of the possibility of leaving cancerous breast tissue behind. It is important that a woman who is considering preventive mastectomy talk with a doctor about her risk of developing breast cancer (with or without a mastectomy), the surgical procedure, and potential complications. She should also discuss her feelings about mastectomy, alternatives to surgery, and followup care. A woman may also wish to get a second medical opinion to help with the decision.

Reasons for Preventive Mastectomy

Preventive mastectomy may be considered for several reasons. Women who have already had one breast removed due to cancer may consider this procedure in an effort to avoid developing a new cancer in the other breast. Preventive mastectomy may also be an option for women with a strong family history of breast cancer, especially if several close relatives



developed the disease before age 50. Women in families with hereditary breast cancer who test positive for a known cancer-causing gene alteration may also consider this surgery. In addition, preventive mastectomy is sometimes considered for women who have had lobular carcinoma in situ, a condition that increases their risk of developing breast cancer in the same and/or in the opposite breast. Rarely, preventive mastectomy may be considered for women with diffuse and indeterminate breast microcalcifications (tiny deposits of calcium in the breast) or for women whose breast tissue is very dense. (This is particularly important in women who have already had a mastectomy in the other breast.) Dense breast tissue is linked to an elevated risk of breast cancer and also makes diagnosing breast abnormalities difficult. Multiple biopsies, which may be necessary for diagnosing abnormalities in dense breasts, cause scarring and further complicate examination of the breast tissue.

Although having a preventive mastectomy can reduce the risk, no one can be certain that this procedure will protect a woman from breast cancer. Because it is impossible for a surgeon to remove all breast tissue, breast cancer can still develop in the small amount of remaining tissue. All women are different, so the procedure should be considered in the context of each woman's unique risk factors and her level of concern.

Breast Reconstruction

Many women who choose to have preventive mastectomy decide to have breast reconstruction (plastic surgery to restore the shape of the breast). Before performing this type of procedure, the plastic surgeon carefully examines the breasts and discusses the appropriate types of reconstruction.

In one type of reconstructive procedure, the surgeon inserts an implant under the skin and the chest muscles. Another procedure to create the shape of a breast, called tissue flap reconstruction, uses skin, fat, and muscle from the woman's abdomen, back, or buttocks. After both types of reconstructive surgery, the surgeon will discuss any limitations on exercise or arm motion.

Women who have reconstructive surgery will be followed carefully in the postoperative period to detect and treat complications, such as infection, movement of the implant, or contracture (the formation of a firm, fibrous shell around the implant caused by the body's reaction to it). Routine screening for breast cancer is also part of the postoperative followup because the risk of cancer cannot be completely eliminated. When women with breast implants have mammograms, they should tell the radiology technician about the implant. Special procedures may be necessary to improve the accuracy of the mammogram.

Doctors do not always agree on the most effective way to manage the care of women who have a strong family history of breast cancer and/or have other risk factors for the disease. Some doctors may recommend preventive mastectomy, while others may prescribe tamoxifen, a medication that has been shown to decrease the chances of getting breast cancer in women at high risk for the disease. Some doctors may advise very close monitoring (periodic mammograms, regular checkups that include a clinical breast examination performed by a health care professional, and monthly breast self-examination) to increase the chance of detecting breast cancer at an early stage. Although the effects are not proven, doctors may also encourage women at high risk to limit their consumption of alcohol, eat a low-fat diet, engage in regular exercise, and avoid hormone replacement therapy.

More Information About Breast Implants

The U.S. Food and Drug Administration (FDA) regulates the use of breast implants and can supply detailed information about these devices. To listen to recorded information or request free printed material on breast implants, consumers can contact the FDA Center for Devices and Radiological Health (CDRH) at:

Address: Consumer Staff
CDRH/FDA
HFZ-210
1350 Piccard Drive
Rockville, MD 20850

Telephone: 1-888-INFO-FDA (1-888-463-6332), toll free
301-827-3990 (Call between 8:00 a.m. – 4:30 p.m., EST for either number.)

E-mail: dsma@cdrh.fda.gov

Web site: <http://www.fda.gov/cdrh/consumer/index.shtml>
<http://www.fda.gov/cdrh/breastimplants> (Breast Implant Information page)

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Sources of National Cancer Institute Information

Cancer Information Service

Toll-free: 1-800-4-CANCER (1-800-422-6237)
TTY (for deaf and hard of hearing callers): 1-800-332-8615

NCI Online

Internet

Use <http://cancer.gov> to reach the NCI's Web site.

LiveHelp

Cancer Information Specialists offer online assistance through the *LiveHelp* link on the NCI's Web site.

This fact sheet was reviewed on 6/1/01