

Hereditary Risk

Concerned About Hereditary Breast Cancer and Ovarian Cancer?

One in 40 Ashkenazi (Central and Eastern European) Jews carries a BRCA gene mutation, nearly **10 times the rate** of the general population, making Jewish families significantly more susceptible to hereditary breast cancer and ovarian cancer. In addition to *BRCA1* and *BRCA2*, there are other genes (e.g., *ATM*, *CHEK2* or *PALB2*) or Lynch Syndrome, any of which may predispose you to a variety of cancers including breast, ovarian, male breast, colon, pancreatic, prostate, uterine, and melanoma. Sharsheret's genetics program addresses your personal issues and concerns.

What You Can Do:

- Know your family history.
- Call Sharsheret's genetic counselor for a free confidential discussion about:
 - Family history.
 - The genetic counseling and testing process.
 - Medical and psychosocial implications of testing for BRCA gene mutations.
 - Communicating with family members about risk.
- Order Sharsheret's educational booklet, "Your Jewish Genes: Hereditary Breast Cancer and Ovarian Cancer."
- Access Sharsheret's educational symposia transcripts at www.sharsheret.org.
- Get connected to a Sharsheret peer supporter by calling 866.474.2774.

Follow-Up Care and Survivorship:

- Ask each member of your medical team to specify the recommended follow-up screenings. Create a calendar for the upcoming year.
- Schedule timely follow-up appointments and screenings.
- Maintain good nutrition and exercise regularly.
- Call Sharsheret to order your free survivorship kit, including information on creating a care plan, nutrition, genetics, bone health, and psychosocial support.
- Ask your healthcare provider if you may be a candidate for Measurable Residual Disease (MRD) testing, which can detect cancer cells left in the body after treatment. MRD testing may be able to help guide future treatment and predict your risk of recurrence.



The information contained in this publication is intended to provide general information about breast cancer and breast health and should not be construed as an endorsement or recommendation of any medical or treatment intervention. All medical information should be discussed with a health care professional.

© 2021 Sharsheret, Inc. All rights reserved.
BR_NF_C
5/2026 2500

ABOUT SHARSHERET

Breast Cancer Navigation Flowchart

Understanding Your Pathology Report And Treatment Options



Pathology Report

Tumor Size

Tumor size is measured in centimeters.

Status of Margins

After surgery, the edges of the tissue surrounding the tumor are tested.

- Negative margins indicate normal surrounding tissue.
- Positive margins suggest the possibility of more tumor cells left behind after surgery and may require further surgery (re-excision) to obtain clear (negative) margins.

Status of Lymph Nodes

Lymph node status reflects whether tumor cells have moved out of breast tissue into the lymphatic system.

- Negative — no evidence of cancer cells in lymph nodes.
- Positive — cancer cells detected in lymph nodes.

Biomarker Testing

Biomarker testing evaluates whether the presence of hormone and protein receptors are contributing to the growth and stimulation of cancer cells and will help determine the course of treatment.

- Estrogen Receptors (ER)
- Progesterone Receptors (PR)
- HER2/neu Protein Receptors

IHC (immunohistochemistry) and FISH (fluorescence in situ hybridization) Tests

IHC measures the amount of HER2/neu protein present. FISH measures the number of copies of the HER2/neu gene that are present.

IHC test results:

- 0–1: Negative, FISH is not necessary.
- 2: Indeterminate, FISH is necessary to clarify HER2/neu status.
- 3+: Positive, FISH may be necessary.

Genomic Analysis

Tests to predict recurrence risk and whether the tumor will respond with hormonal therapy or chemotherapy, such as:

- MammaPrint Test* (70 Gene Assay)
- Oncotype DX Assay* (21 Gene Assay)
- Prosigna Test* (50 Gene Assay)

Factors that contribute to the risk of recurrence include IHC and FISH,, tumor size, lymph node involvement, ER/PR status, and age/ menopausal status.

*Brand names

Treatment team may consist of:

- You
- Surgeon
- Medical Oncologist
- Radiation Oncologist
- Gynecological Oncologist
- Fertility Specialist
- Plastic Surgeon
- Genetic Counselor
- Mental Health Professional
- Nutritionist

Information Management Tips

- Portfolio: Keep copies of all of your records, films, and test results in a portfolio.
- Keep a running log or cancer management app with questions for doctors, name, dosage, and frequency of medications, tracking side effects and symptoms, information from doctors’ visits, insurance claims, payments, and contact information.
- Notekeeper: Bring a family member or friend to appointments, or record on your phone.

Diagnosis

Many factors affect breast cancer treatment plans, including staging, age of onset, prior cancer history, family history, and outcome of genetic testing. The biology of the tumor, specifically hormone and protein receptor status, is one of the most critical factors when determining treatment options. Your treatment will be tailored to your specific case and should be discussed with your medical team.

A second opinion can be helpful to you in confirming your diagnosis and making decisions about your treatment. Consult with your healthcare professional and insurance company.

Non-Invasive

Ductal carcinoma in situ (DCIS) is the presence of abnormal cells inside a milk duct in the breast. Lobular carcinoma in situ (LCIS) is the presence of abnormal cells in the milk glands (lobules) in the breast. Both DCIS and LCIS are non-invasive, but are associated with an increased risk of developing into invasive breast cancer.

Stage I Invasive Breast Cancer

Tumor cells are confined to the breast and there is no lymph node involvement.

Stage II Invasive Breast Cancer

Tumor cells are present in the breast and some of the surrounding lymph nodes.

Stage III Invasive Breast Cancer

Tumor cells have extended to beyond the immediate region of the tumor and may have invaded nearby lymph nodes and muscles, but has not spread to distant organs.

Inflammatory Breast Cancer

Tumor cells block the lymphatic vessels in the skin covering the breast, causing redness and swelling in the breast. A breast lump may or may not be present.

Stage IV Advanced (Metastatic) Breast Cancer

Breast cancer tumor cells have spread beyond the breast and lymph nodes to other parts of the body.

Surgical and Treatment Options

Below are some of the available breast cancer surgical and treatment options. Depending on your specific case, clinical trials may also be appropriate. Speak with your health care provider to decide which options are best for you.

Fertility Preservation

Your fertility may be affected by surgery and treatment. Speak with your health care professional about fertility preservation options available to you before beginning treatment.

Surgery

- Lumpectomy (breast conserving surgery)
- Unilateral mastectomy
- Bilateral mastectomy
- Prophylactic unilateral or bilateral mastectomy
- Lymph node dissection
- Sentinel lymph node dissection
- Prophylactic hysterectomy

- Prophylactic bilateral salpingo-oophorectomy
- Skin-sparing mastectomy
- Nipple-sparing mastectomy

Reconstructive Surgery

- Aesthetic flat closure
- Saline implants
- Silicon implants
- AlloDerm*
- TRAM flap
- Free flap
- Goldilocks mastectomy
- Latissimus flap
- DIEP flap
- PAP flap
- Nipple reconstruction
- Nipple and areola tattooing+

Treatment

- Chemotherapy
 - scalp cooling+ may help with hair preservation
- Radiation therapy
- Targeted biologic therapy
 - Enhertu (trastuzumab deruxtecan)
 - Herceptin** (trastuzumab)
 - Kadcycla (T-DM1)
 - Lynparza* (olaparib)
 - NERLYNX* (neratinib)
 - Perjeta* (pertuzumab)
 - Piqray (alpelisib)
 - Tykerb* (lapatinib)

- Hormonal therapy
 - SERM (Selective Estrogen Receptor Modulators)
 - Evista* (raloxifene)
 - Nolvadex* (tamoxifen)
 - ERD (Estrogen Receptor Downregulators)
 - Faslodex* (fulvestrant)
 - Immunotherapy
 - Keytruda (pembrolizumab)
 - Tecentriq (atezolizumab))
 - Aromatase Inhibitors
 - Arimidex* (anastrozole)
 - Aromasin* (exemestane)
 - Femara* (letrozole)
 - Ovarian Suppression
 - Lupron* (leuprolide)
 - Zoladex* (goserelin acetate)

*Brand names

**Biosimilar therapy is available. Talk to your healthcare professional about whether biosimilars are an option for you.
+Financial subsidies available through Sharsheret BFF2.0 program