

# Early-Stage Breast Cancer Treatment Planning Guide

## What is early-stage breast cancer?

In early-stage breast cancer, the tumor can be relatively small and only in the breast. Although there may be cancer cells in nearby glands under the arm (called lymph nodes), this stage is considered “early” because the cancer has not metastasized (spread to other parts of the body). As frightening as a breast cancer diagnosis can be, early-stage breast cancer can be treated, and for most people the cancer doesn’t return.

## Why do I need to know my breast cancer subtype?

Tumor characteristics can help predict if you are likely to benefit from specific types of therapy. Knowing your breast cancer subtype will help determine your treatment plan.

## What are the different subtypes of breast cancer?

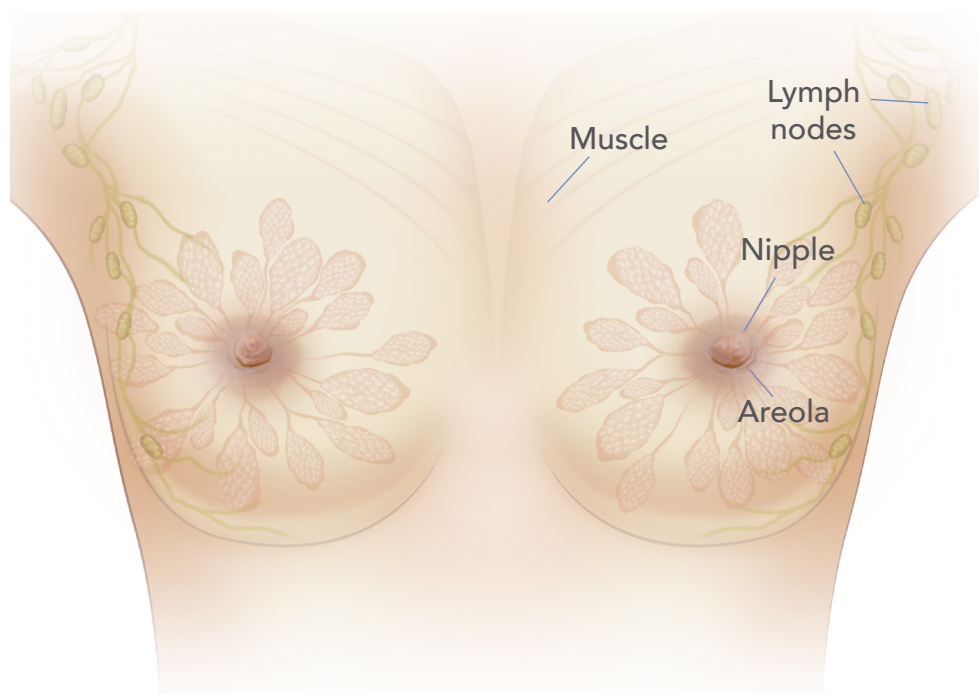
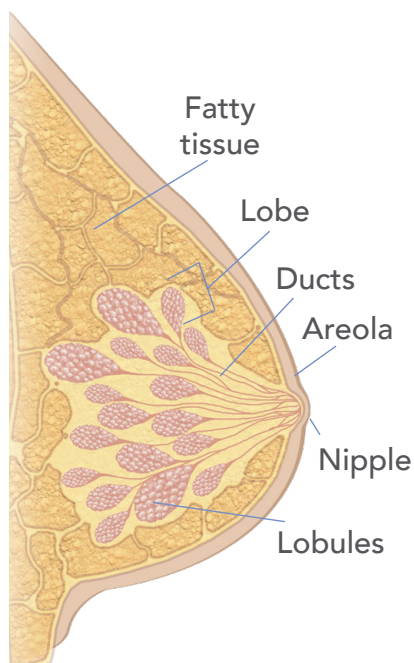
Your doctor will do tests to better understand your breast cancer. Breast cancer typically falls into one of several categories. To be “positive” means that your tumor expresses, or has higher levels, of a specific marker.

- **Hormone receptor positive (HR+)** means that your tumor grows in response to estrogen (ER+) and/or progesterone (PR+), both which occur naturally in the body and can cause the tumor to grow
  - Because the tumor grows in response to hormones, your doctor will ask if you still have your period; treatments change for women after menopause, when your body produces less hormones naturally
- **Human epidermal growth factor receptor 2 positive (HER2+)** is when your tumor has excess HER2 protein, that causes cancer cells to grow and divide
  - HER2+ breast cancer is a more aggressive form of cancer compared to HER2- breast cancer
- **Triple negative breast cancer (TNBC)** is a tumor that is both HR negative (ER-, PR-) and HER2 negative
  - Therapies that don’t target the hormone receptors or the HER2 protein can improve the treatment of TNBC

**References:** 1. Denduluri N, et al. *J Clin Oncol.* 2016;34(20):2416-2427. 2. Denduluri N, et al. *J Clin Oncol.* 2018;36(23):2433-2443. 3. Miller E, et al. *F1000Res.* 2014;3:19. 4. Cain H, et al. *Clin Oncol.* 2017;29:642-652. 5. Runowicz CD, et al. *J Clin Oncol.* 2016;34(6):611-635. 6. NCI Dictionary of Cancer Terms. <https://www.cancer.gov/publications/dictionaries/cancer-terms>. Accessed October 5, 2018.

# What is the plan for treating my breast cancer?

## Anatomy of the female breast



Tumor Assessment	Details
Tumor stage	
Grade	
Size approximation	
Node	
Metastasis	

Tumor Biology	Details
HER2 receptor	
Estrogen receptor	
Progesterone receptor	
Triple negative	

Other Assessments	Details
Ki67	
BRCA1/BRCA2	
Genomic testing	
Other	

### Glossary:

- **Adjuvant Treatment** – Treatment after surgery to eliminate remaining breast cancer cells and lower the risk of tumors growing back
- **Axillary Node Dissection** – Surgical procedure that incises the axilla to identify, examine, or remove lymph nodes
- **BRCA1/BRCA2** – “BReast CAncer gene” BRCA1 and BRCA2 are genes that help prevent breast cancer, when these genes are mutated the risk of developing breast cancer is higher
- **Chemotherapy** – Treatment that destroys cancer cells throughout the body
- **Estrogen Receptor (ER) Status** – Assessment of the number of estrogen receptors to help determine if the hormone estrogen is driving breast cancer growth
- **Extended Adjuvant Treatment** – Treatment continuing after adjuvant therapy to further reduce the risk of cancer returning
- **HER2** (human epidermal growth factor receptor 2) – a type of protein found on the surface of cells in everyone
- **HER2+ (HER2-positive) Breast Cancer** – Breast cancer cells with more HER2 receptors than normal breast cells (sometimes called “HER2 Amplified” breast cancer)
- **Hormonal Therapy** – Treatments for hormone receptor-positive breast cancer
- **Ki67** – A marker that identifies a subset of patients with ER-positive breast cancer who may receive greater benefit from adjuvant chemotherapy
- **Lumpectomy** – Surgery in which the tumor is removed, along with a small rim of healthy tissue around it. Also called partial mastectomy, segmentectomy, or breast-conserving surgery
- **Mastectomy** – Surgery in which the entire breast is removed
- **Metastatic/Metastasized** – Breast cancer that has spread beyond the breast and nearby lymph nodes to other parts of the body such as the bone, liver, lung, and/or brain
- **Neoadjuvant Treatment** – Treatment before surgery to shrink the tumor and decrease the chance of cancer cells spreading outside the breast
- **Progesterone Receptor (PR) Status** – Assessment of the number of progesterone receptors to help determine if the hormone progesterone is driving breast cancer growth
- **Radiation Therapy** – The use of high-energy x-rays to destroy breast cancer cells and shrink tumors
- **Sentinel Node Biopsy** – Surgical procedure used to determine if cancer has spread beyond a primary tumor into your lymphatic system
- **Triple Negative Breast Cancer (TNBC)** – Any breast cancer that does not express genes for ER, PR and HER2

## Your specific early-stage breast cancer treatment plan might include medicine before and/or after surgery

In the past, surgery to remove the tumor was almost always the first step in treating breast cancer. Today, we know that treatments before surgery may increase the effectiveness of the treatment plan and decrease the likelihood of future recurrence.

### Treatment Before Surgery (Neoadjuvant Treatment):

- Includes treatments such as chemotherapy, endocrine (hormonal) therapy, and anti-HER2 therapy
- May help shrink the tumor and potentially decrease the chance of cancer cells spreading outside of the breast
- How the tumor responds to early, neoadjuvant treatment can help determine which therapies will work best after surgery



### Surgery:

- Remove any remaining tumor from the breast
- Test (biopsy) or remove lymph nodes under the arm to see whether any contain cancer cells



### Radiation After Surgery:

- Many patients receive radiation therapy after surgery, which uses high energy x-rays to destroy any remaining breast cancer cells and shrink tumors



### Treatment After Surgery (Adjuvant Treatment):

- Following surgery, your doctor will select the best treatment for your breast cancer type; many patients receive chemotherapy to help eliminate any remaining breast cancer cells
- If your tumor is sensitive to hormones, endocrine therapy may be used alone or in combination; endocrine therapies include SERMs (selective estrogen receptor modulators) and AIs (aromatase inhibitors) and are usually started after you have completed chemotherapy
- Additional therapy, such as ovarian suppression for premenopausal women, or bone modifying drugs may be used to help prevent recurrence
- If your tumor is HER2+, one or more HER2-targeted therapies may be used to stop the growth of cancer cells and prevent recurrence



### Extended Adjuvant Treatment:

- If you are HER2+ you can further reduce your risk of recurrence by extending your treatment for 1 year with an oral HER2-targeted therapy, which provides additional targeting of HER2
- If you are HR+ and started treatment with a SERM or AI, you may continue this for several years. Some patients may receive AIs for up to 10 years



# Treatment Planning

Your doctor may perform additional tests to determine which treatment steps are likely to be most effective for you. Together with your treatment team, you'll discuss the best options and create your plan. Complete this section with your healthcare team.

## Possible Additional Diagnostic Tests

☐ Breast Imaging (MRI/CT)

☐ Genetic Testing

☐ Other (write test names and procedure dates):

## Procedure Date:

\_\_\_\_\_

\_\_\_\_\_

## Possible Treatments

☐ Surgery

☐ Lumpectomy

☐ Mastectomy

☐ Reconstruction

☐ Sentinel Node Biopsy

☐ Axillary Node Dissection

☐ Radiation Therapy

☐ Chemotherapy

☐ HER2 Therapy

☐ Hormonal Therapy

## Procedure Date/ Start Date:

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## Possible Additional Consultations

☐ Genetic Counseling

☐ Fertility Specialist

☐ Psychologist/Social Worker

☐ Oncology Dietitian

☐ Occupational Therapist

☐ Breast Cancer Support Group

☐ Other

## Appointment Date:

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## Additional information on your treatment plan:







## Interpreting "positive" or "negative" results

Positive and negative results can mean different things depending on the type of test. Be sure you're clear on your test results and their implications when speaking with your doctors, and don't be afraid to ask very specific questions such as, "Is that a good thing or a bad thing?"

## Important Contact Information:

Healthcare/Office Contact: \_\_\_\_\_

Nurse Navigator: \_\_\_\_\_ Phone: \_\_\_\_\_ Email: \_\_\_\_\_