HER2+ BREAST CANCER
FOR EARLY-STAGE DIAGNOSES
Further reduce your risk of recurrence with NERLYNX

LEARN MORE AT NERLYNX.COM

TREATMENT
BEFORE SURGERY

SURGERY TREATMENT

AFTER SURGERY

NERLYNX, an ANTI-HER2 targeted therapy (chemotherapy and Herceptin® [trastuzumab])

NERLYNX provided a 34% reduction in the risk of recurrence* compared to placebo at 2 years and 27% at 5 years. NERLYNX, an extended adjuvant oral therapy, is designed to be taken after trastuzumab-based therapy (i.e. Herceptin®). Ask your healthcare team if your treatment plan should include NERLYNX.

Recurrence can happen, NERLYNX may help

SELECTED IMPORTANT SAFETY INFORMATION

What are the possible side effects of NERLYNX?

NERLYNX may cause serious side effects, including:

See “What is the most important information I should know about NERLYNX?”

• liver problems. Changes in liver function tests are common with NERLYNX. Your healthcare provider should do blood tests before you begin treatment, monthly during the first 3 months, and then every 3 months as needed during treatment with NERLYNX. Your healthcare provider will stop your treatment with NERLYNX if your liver tests show severe problems. Call your healthcare provider right away if you get any of the following signs or symptoms of liver problems:

  - tiredness
  - nausea
  - vomiting
  - pain in the right upper stomach-area (abdomen)
  - fever
  - rash
  - itching
  - yellowing of your skin or whites of your eyes

These are not all the possible side effects of NERLYNX. Call your doctor for medical advice about side effects. You may report side effects to FDA at 1-800-FDA-1088.

*Recurrence is defined as an invasive disease event or death.

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Further reduce your risk of recurrence with NERLYNX

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LEARN MORE AT NERLYNX.COM

Common side effects of NERLYNX include:

- diarrhea
- nausea
- stomach-area (abdomen) pain
- tiredness
- vomiting
- rash
- dry or inflamed mouth, or mouth sores
- decreased appetite
- muscle spasms
- upset stomach
- nail problems including color change
- dry skin
- swelling of your stomach-area
- weight loss
- urinary tract infection

These are not all the possible side effects of NERLYNX. Call your doctor for medical advice about side effects. You may report side effects to FDA at 1-800-FDA-1088.

Please see additional IMPORTANT SAFETY INFORMATION on the next page.

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Important Safety Information

What is the most important information I should know about NERLYNX (ner links)?

NERLYNX® (neratinib) may cause serious side effects, including:

• Diarrhea. Diarrhea is a common side effect of NERLYNX, but it can also be severe. You may lose too much body salts and fluids, and get dehydrated. Your healthcare provider should prescribe the medicine loperamide for you during your first 2 months (56 days) of NERLYNX and then as needed. To help prevent or reduce diarrhea:
  - Tell your healthcare provider if you have more than 2 bowel movements in 1 day, or you have diarrhea that does not go away.
  - Call your healthcare provider right away, as instructed, if you have severe diarrhea or if you have diarrhea along with weakness, dizziness, or fever.

Your healthcare provider may change your dose of NERLYNX, temporarily stop or completely stop NERLYNX if needed to manage your diarrhea.

See “What are the possible side effects of NERLYNX?” for more information about side effects.

What is NERLYNX?

NERLYNX is a prescription medicine used to treat adults who have early-stage breast cancer, which:

• is HER2-positive
• has previously been treated with the medicine trastuzumab.

It is not known if NERLYNX is safe and effective in children.

Before taking NERLYNX, tell your healthcare provider about all of your medical conditions, including if you:

• have liver problems. You may need a lower dose of NERLYNX.

• are pregnant or plan to become pregnant. NERLYNX can harm your unborn baby. If you are a female who can become pregnant:
  - Your healthcare provider should do a pregnancy test before you start taking NERLYNX.
  - You should use effective birth control (contraception) during treatment and for at least 1 month after your last dose of NERLYNX.
  - Talk with your healthcare provider about forms of birth control that you can use during this time.
  - Tell your healthcare provider right away if you become pregnant during treatment with NERLYNX.
  - Males with female partners who can become pregnant should use effective birth control during treatment and for 3 months after your last dose of NERLYNX.

• are breastfeeding or plan to breastfeed. It is not known if NERLYNX passes into your breast milk. Do not breastfeed during treatment and for at least 1 month after your last dose of NERLYNX.

Tell your healthcare provider about all the medicines you take, including prescription and over-the-counter medicines, vitamins, and herbal supplements. Especially tell your healthcare provider if you take medicines used to decrease stomach acid, called proton pump inhibitors or PPIs, and H-2 receptor antagonists. You should avoid taking these medicines during treatment with NERLYNX.

What are the possible side effects of NERLYNX?

NERLYNX may cause serious side effects, including:

See “What is the most important information I should know about NERLYNX?”

• liver problems. Changes in liver function tests are common with NERLYNX. Your healthcare provider should do blood tests before you begin treatment, monthly during the first 3 months, and then every 3 months as needed during treatment with NERLYNX.

Your healthcare provider will stop your treatment with NERLYNX if your liver tests show severe problems. Call your healthcare provider right away if you get any of the following signs or symptoms of liver problems:

- tiredness
- nausea
- vomiting
- pain in the right upper stomach-area (abdomen)
- fever
- rash
- itching
- yellowing of your skin or whites of your eyes

Common side effects of NERLYNX include:

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I recommend finding resources and a support group because when you’re first diagnosed, you don’t understand everything.

~ Breast cancer survivor Vicki Rollf on the importance of support
Understanding Your Early-Stage Diagnosis

Breast cancer is one of the most common types of cancer diagnosed in women. HER2 positive (HER2+) breast cancer is a very specific subset of breast cancer. If you’ve been diagnosed with Stage I, II or III HER2+ breast cancer, this guide was written especially for you to help educate you about your unique diagnosis. Your doctor based this diagnosis on genetic tests you had that looked for specific protein receptors, known as estrogen and progesterone receptors (ER and PR) and human epidermal growth factor receptor-2 (HER2), in or on the breast cancer cells. In your case, too much of the HER2 protein or extra copies of the HER2 gene were found, and the cells are growing and dividing in an uncontrolled way.

To help digest this information, it may help to have a basic understanding of cancer. Cells typically divide in an orderly fashion. When they are worn out or damaged, they die, and new cells replace them. Cancer develops when genes begin to change, or mutate, within the structure of normal cells. For you, the “change” is the presence of too much HER2. These cells – now called cancer cells – grow and push against normal cells. Sometimes they form tumors.

Your diagnosis is called “early” stage because it is Stage I, II or III, meaning it has not spread to distant parts of your body. There are many treatment types available for this type of cancer. This guide will provide information on each of the following:
- Surgery – removal of cancer
- Neoadjuvant – medication or radiation therapy before surgery
- Adjuvant – medication or radiation therapy after surgery
- Extended adjuvant – medication after adjuvant therapy

One unique aspect of an early-stage HER2+ diagnosis is the extended treatment period. Advances in targeted therapy for HER2+ breast cancer have improved survival rates dramatically, but these advances require a commitment to prolonged treatment after surgery (called adjuvant therapy) and, often, treatment is delivered preoperatively as well. Women whose cancer is hormone receptor positive as well as HER2+ will also receive endocrine/hormonal therapy for a number of years. Recent advances have enabled doctors to add another safeguard known as extended adjuvant treatment. Taken after adjuvant therapy, extended adjuvant treatment further reduces the risk of the tumors recurring.

It may surprise you to learn that you may need treatment for a lengthy time. Adhering to your medication schedule is crucial. It may help to think of adjuvant therapy and extended adjuvant treatment as another part of your daily routine; for example, taking the oral medication every morning when you eat breakfast. These treatments are needed and an extra assurance that may help ward off a recurrence.

Accepting, and even embracing, your treatment schedule is just one way to be an active participant in your own care. You’re also encouraged to learn more about your diagnosis. You’ll be more confident in your decision making and, as a result, you’ll be a better advocate for your own care. Taking care of yourself physically by eating right and exercising, and managing your emotional needs by seeking support, are also important.

Perhaps most important may be a change in your mindset. You may be used to taking care of others. At this time, it’s all about you and your body, so prepare to shift your perspective and focus on what you need to do to be the healthiest version of yourself possible.

SURVivor VOICE

I made it my goal to inform and educate other women on the importance of mammograms and sonograms. If I could save one woman’s life by advocating early detection, I was going to do it.

~ Breast cancer survivor Gayla Tocco on the importance of early detection

ADDITIONAL RESOURCES

- American Society of Clinical Oncology: www.cancer.net
- National Cancer Institute: www.cancer.gov
- HER2 Positive
- Young Survival Coalition: www.youngsurvival.org

Your health care team will be a valuable resource for information. Open the lines of communication by asking these and other questions. Knowledge is power. Understanding more about your diagnosis will make you a better partner in your treatment plan.

► What are my treatment options?
► What are the expected short-term and long-term side effects for each option?
► Am I a candidate for a clinical trial?
► What treatment do you recommend?
► Will I be able to work during treatment?
► Will I need help at home and, if so, for how long?
► Will I have a nurse navigator or a main contact I can call with questions?
► Will this treatment affect my ability to get pregnant or have children? Can you direct me to a fertility specialist before treatment begins?
► Can you connect me with support groups and financial resources?
PatientResource.com

Survivor Story

Vicki Rollf believes the blessings in her life far outweigh her early-stage HER2+ breast cancer diagnosis. She has met people, participated in events and learned about organizations she otherwise wouldn’t have. She has grown in her faith and wouldn’t have. She has had the opportunity to mentor others going through similar diagnoses.

I am a cancer survivor. My life changed when I was diagnosed, changed again during and after treatments, and continues to change now in survivorship. I’m stronger than I thought I was; I’m far less judgmental (which is a work in progress), and I have a lot more empathy because we all have our own story. Mine just happens to include breast cancer.

I had a routine mammogram; they saw something and asked me to come back. It was no big deal. I’d gone back for follow-ups twice before. During this follow-up visit, however, the conversation was different. I was talking with the ultrasound technician and had all but received a verbal diagnosis of breast cancer. A needle biopsy confirmed Stage I breast cancer. I was 61 years old.

I was in complete shock. I was sad, scared and angry. Going to a cancer center to see cancer doctors, receiving “cancer mail” with my name on it — it was overwhelming. I began accepting my diagnosis, however, by asking questions. There’s so much information that you’ll probably only hear half of it and comprehend even less. I recommend having someone go with you to your appointments or recording the conversations to listen to later.

My treatment plan started with deciding between a lumpectomy and a mastectomy. Because the tumor was very small, my surgeon thought I would be happy with a lumpectomy to be followed by radiation and hormone treatment. I had initial visits with my radiation oncologist and hormone oncologist; however, when the results from my HER2 test came back, everything changed. I was HER2 positive (HER2+), and my hormone oncologist added chemotherapy and targeted therapy to my treatment plan.

I’d never heard the term “HER2 positive” before. My oncologist told me that the breast cancer was more aggressive than we originally thought and, without this regimen, I had a much higher risk of metastasis. This was like a punch in the stomach. I had finally wrapped my head around my diagnosis and treatment plan, but this was new, serious information. She was, however, very pleased that I was able to come back. It was everything changed. I was HER2 positive (HER2+), and my hormone oncologist added chemotherapy and targeted therapy to my treatment plan.

I’d never heard the term “HER2 positive” before. My oncologist told me that the breast cancer was more aggressive than we originally thought and, without this regimen, I had a much higher risk of metastasis. This was like a punch in the stomach. I had finally wrapped my head around my diagnosis and treatment plan, but this was new, serious information. She was, however, very pleased that a targeted therapy was available for me. I was very thankful for that, especially if it would help me stick around for many more years.

As displeased as I was about having to do chemotherapy, not doing it was too scary. Unfortunately, the margins were not clear, so I had a second lumpectomy and a port implanted. My regimen consisted initially of chemotherapy plus targeted therapy, and then treatments of just the targeted therapy. I also received radiation to the breast. A lot of people say one of the hardest things to deal with is not feeling in control. A pattern of symptoms emerged and I worked my life around it. I felt my best on week three of the cycle, the week before the next treatment. That’s when I’d schedule my work meetings and anything else I needed to get done for that week. It gave me hope during the bad days because I knew when they would end.

The treatments caused nausea comparable to morning sickness. I lost weight and my hair, was exhausted, and got painful mouth sores. One of the chemotherapy drugs closed my tear ducts so my eyes watered all the time. The condition required a procedure to open the tear ducts, which gave me black eyes for six weeks. I also had neuropathy that returned as a late effect.

After the combined regimen, I continued with just targeted therapy. That part of treatment was a piece of cake. My side effects went away, and my hair began to grow back. I felt good enough to drive myself to and from treatment and, some days, I even stopped to do a little shopping on my way home.

Before treatment, I had osteopenia in my back; after treatment, that developed into osteoporosis and osteopenia in my back and hips. I was on a hormone treatment to help prevent recurrence, and its main side effect is bone loss. My endocrinologist recommended bone growth and strengthening agents, and my oncologist recommended I stop taking hormone replacement after five years.

I recommend finding resources and a support group because when you’re first diagnosed, you don’t understand everything. I wish I’d had the benefit of advice from someone who had “been there, done that.” So I volunteer by talking to women going through treatment. If my story helps even one person, then I feel like I’m paying it forward.

Since I chose a lumpectomy, I have an annual mammogram and it always makes me a little nervous. I wonder if I should have had a mastectomy. But, as cancer survivors, we live with the fear of recurrence in the back of our heads whether we had a lumpectomy or mastectomy. There will always be “what ifs.” I made the best decision for me based on my diagnosis, research and the time in my life.

I encourage women to talk to their doctor about side effects during and after treatment, even the ones that may be personal, such as vaginal dryness. The HER2+ diagnosis prevents women from taking estrogen supplements, so there is no estrogen in the body. That really brings on vaginal dryness, which affects intimacy as well as daily life. Definitely ask your doctor about the products and procedures that may manage that issue.

Even though this diagnosis isn’t something I would’ve asked for, it’s not something I regret. I’ve met beautiful, amazing women who became new friends. Just hold onto your family, friends and faith. Breast cancer doesn’t define us as women, but it’s now a part of who we are, and that’s OK.
You can view this document on iPhone and iPad devices and may interact with the document using the following actions: scroll up, scroll down, zoom in, drag and drop, tap to select, long tap to select, flick to move, and pinch to zoom. This document is also available in the web browser version without these specific actions.

Staging and What It Means

Your managing physician will develop the best treatment plan for your unique diagnosis based on the stage of the disease. The stage is determined from the results of a physical exam, imaging studies and laboratory tests. The staging system used for breast cancer was developed by the American Joint Committee on Cancer (AJCC). Known as TNM staging, this system uses the tumor (T), node (N) and metastasis (M) classification system (see Table 1). When staging breast cancer in the United States, additional factors are also considered with the TNM. These include tumor grade, HER2/ER/PR status and multi-gene panels, including MammaPrint or Oncotype DX.

The T classification is the same for both clinical and pathologic staging and provides information on the size and extent of the tumor within the breast. Clinical staging for the N category describes the location and bulkiness of lymph nodes that seem to be malignant (from spread of the breast cancer) on physical examination. Location and extent of any cancerous lymph nodes provide clues regarding the likelihood that the breast cancer might have spread to other organs. The pathologic N category (sometimes denoted as pN) describes how many lymph nodes are involved and the amount of tumor cells actually found in the nodes, based upon needle biopsy and/or surgical resection. The M category regarding the likelihood that the breast cancer has spread to another part of the body beyond the breast and local lymph nodes.

Researchers have found that breast cancers vary in several important ways. The identification of tumor markers, or biomarkers, and the development of technology for genetic profiling (studying several genes in a tumor simultaneously) have led to classification of breast cancer according to subtypes based on molecular or genetic changes. Distinguishing between these subtypes is important because treatments and monitoring milestones, such as response to therapy and likelihood of disease relapse, vary by subtype. As a result, the AJCC recommends tissue testing along with staging to identify the most effective therapy. Tumors can be tested for proteins produced either by the cancer cells themselves or by other cells in response to cancer, as well as for genetic mutations linked to the development of cancer.

A pathologist examined tissue specimens removed during surgery or biopsy as part of pathologic staging, which is how your type of cancer is classified.

TABLE 1
AJCC TNM SYSTEM FOR CLASSIFYING BREAST CANCER

<table>
<thead>
<tr>
<th>Classification</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>T0</td>
<td>No evidence of primary tumor.</td>
</tr>
<tr>
<td>T1</td>
<td>Tumor ≤ 20 mm in greatest dimension.</td>
</tr>
<tr>
<td>T1a</td>
<td>Tumor ≤ 10 mm but ≤ 20 mm in greatest dimension.</td>
</tr>
<tr>
<td>T1b</td>
<td>Tumor ≤ 5 mm but ≤ 10 mm in greatest dimension.</td>
</tr>
<tr>
<td>T1c</td>
<td>Tumor &gt; 5 mm but ≤ 10 mm in greatest dimension.</td>
</tr>
<tr>
<td>T2</td>
<td>Tumor &gt; 20 mm but ≤ 50 mm in greatest dimension.</td>
</tr>
<tr>
<td>T3</td>
<td>Tumor &gt; 50 mm in greatest dimension.</td>
</tr>
<tr>
<td>T4</td>
<td>Any tumor size with direct extension to the chest wall and/or to the skin (ulceration or macroscopic nodules).</td>
</tr>
<tr>
<td>T4a</td>
<td>Extension to the chest wall.</td>
</tr>
<tr>
<td>T4b</td>
<td>Ulceration and/or ipsilateral (on the same side) macroscopic satellite nodules and/or edema (including peau d’orange) of the skin that does not meet the criteria for inflammatory carcinoma.</td>
</tr>
<tr>
<td>T4c</td>
<td>Both T4a and T4b are present.</td>
</tr>
<tr>
<td>T4d</td>
<td>Inflammatory carcinoma.</td>
</tr>
<tr>
<td>N0</td>
<td>Regional lymph nodes cannot be assessed.</td>
</tr>
<tr>
<td>N1</td>
<td>No regional lymph node metastasis identified or ITCs (isolated tumor cells) only.</td>
</tr>
<tr>
<td>N1a</td>
<td>ITCs (isolated tumor cells) only (malignant cell clusters no larger than 0.2 mm in regional lymph nodes).</td>
</tr>
<tr>
<td>N1b</td>
<td>Positive molecular findings by reverse transcription polymerase chain reaction (RT-PCR); no ITCs (isolated tumor cells) detected.</td>
</tr>
<tr>
<td>N1c</td>
<td>Micrometastases; or metastases in 1-3 axillary (amput) lymph nodes; and/or clinically negative internal mammary lymph nodes with micrometastases or macrometastases by sentinel lymph node biopsy.</td>
</tr>
<tr>
<td>N2</td>
<td>Micrometastases (approximately 200 cells, larger than 0.2 mm, but none larger than 2.0 mm).</td>
</tr>
<tr>
<td>N2a</td>
<td>Metastases in 1-3 axillary (amput) lymph nodes, at least one metastasis larger than 2.0 mm.</td>
</tr>
<tr>
<td>N2b</td>
<td>Metastases in ipsilateral (on the same side) internal mammary sentinel nodes, excluding ITCs (isolated tumor cells).</td>
</tr>
<tr>
<td>N2c</td>
<td>Both N2a and N2b combined.</td>
</tr>
<tr>
<td>N3</td>
<td>Metastases in 4-9 axillary (amput) lymph nodes; or positive ipsilateral (on the same side) internal mammary lymph nodes by imaging in the absence of axillary lymph node metastases.</td>
</tr>
<tr>
<td>N3a</td>
<td>Metastases in clinically detected internal mammary lymph node with or without microscopic confirmation; with pathologically negative axillary (amput) lymph nodes.</td>
</tr>
<tr>
<td>N3b</td>
<td>Metastases in 10 or more axillary (amput) lymph nodes; or in infraclavicular (below the clavicle) (Level III axillary) lymph nodes; or positive ipsilateral (on the same side) internal mammary lymph nodes by imaging in the presence of one or more positive Level I, II axillary lymph nodes; or in more than three axillary lymph nodes and micrometastases or macrometastases by sentinel lymph node biopsy in clinically negative ipsilateral internal mammary lymph nodes; or in ipsilateral supraclavicular (above the clavicle) lymph nodes.</td>
</tr>
<tr>
<td>N3c</td>
<td>Metastases in 10 or more axillary (amput) lymph nodes (at least one tumor deposit larger than 2.0 mm); or metastases to the infraclavicular (below the clavicle) (Level III axillary) lymph nodes.</td>
</tr>
</tbody>
</table>

Note: (sn) and (f) suffixes should be added to the N category to denote confirmation of metastasis by sentinel node biopsy or FNA/core needle biopsy respectively, with N0 further resection of nodes.

TABLE 2
STAGES OF BREAST CANCER

<table>
<thead>
<tr>
<th>Stage</th>
<th>TNM Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Tis, N0, M0</td>
</tr>
<tr>
<td>IA</td>
<td>T1, N0, M0</td>
</tr>
<tr>
<td>IB</td>
<td>T0 or T1, N1, M0</td>
</tr>
<tr>
<td>IIA</td>
<td>T0 or T1, N1, M0; T2, N0, M0</td>
</tr>
<tr>
<td>IIB</td>
<td>T2, N1, M0; T3, N0, M0</td>
</tr>
<tr>
<td>IIA</td>
<td>T0-T3, N2, M0; T3, N1, M0</td>
</tr>
<tr>
<td>IIB</td>
<td>T4, N0-N2, M0</td>
</tr>
<tr>
<td>IICC</td>
<td>Any T, N3, M0</td>
</tr>
</tbody>
</table>

breast cancer was classified as HER2+.

After classifying the breast cancer, the pathologist assigned it an overall stage (see Table 2). A grade, which is based on the microscopic features of tumor cell growth rate and aggressiveness, is also assigned by a pathologist. Knowing the grade provides additional clues regarding likelihood of breast cancer spread or metastasis. HER2+ breast cancers are generally diagnosed as Grade 3, meaning they may grow quickly and spread. Although these higher grade cancers may be more aggressive, they are very highly treatable because of several anti-cancer therapies that specifically target and kill the cancer cells that are characterized by the HER2 biomarker.

Ask your doctor to explain the stage or grade of your breast cancer. Understanding your diagnosis will help you make more informed treatment decisions.

<table>
<thead>
<tr>
<th>STAGES OF EARLY-STAGE BREAST CANCER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stage IA</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Stage II</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Stage IIIA</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Stage IIIB</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Stage IIIC</td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

**Understanding Treatment Effects on Your Fertility**

Being a mother is an integral part of life that many women envision for themselves. However, certain types of cancer treatment can affect your fertility (the ability to start or maintain a pregnancy). If you are premenopausal and are concerned about your ability to have a child in the future, be proactive about exploring fertility preservation before beginning treatment. Only you know your hopes and expectations for motherhood, so, if your doctor doesn’t bring it up, introduce the topic. You may be referred to a reproductive specialist who will learn more about you, your diagnosis and your treatment plan, and then discuss the available possibilities.

**Fertility Preservation Options**

Drug therapies for breast cancer treatment may affect the number and health of your eggs, resulting in premature menopause. It may be temporary or permanent, and it can depend on many factors, such as your age, type and stage of cancer, and the type of treatment you have.

Following are some topics to discuss with your doctor or reproduction specialist. Remember to consult with your insurance carrier to find out if any of the expenses are covered.

- **Types of Drug Therapy.** Different combinations of therapies may affect your menstrual cycle differently, stopping it only temporarily instead of permanently, for example. However, be aware that even if your period does resume, it likely won’t happen for several months. The longer it takes for it to start again, the less time you have to get pregnant.
- **Embryo Cryopreservation.** This involves having your eggs collected, fertilized, frozen and stored for use later.
- **Egg Freezing.** This involves having your eggs collected, frozen and stored for use later. They are not fertilized.

- **Gonadal Shielding.** If you have radiation therapy, having the technician strategically place a protective shield can reduce the amount of radiation exposure to your reproductive organs.
- **Ovarian Transposition (oophoropexy).** This involves surgically repositioning your ovaries to protect them from damage during radiation therapy.
- **Clinical Trials.** Ask your doctor if you are a candidate for fertility-related clinical trials. They may offer alternatives that are not yet available to the general public.

**Explore Your Options Early**

Your fertility can be affected after a single treatment, and your preservation options will likely become much more limited as treatment goes on. If possible, do your research and be prepared to include fertility preservation in the conversation you have with your doctor about your treatment options.

Keep in mind that some fertility preservation procedures may delay treatment. You don’t want to jeopardize your health, and it is very important to talk with your doctor about timing. If your doctor recommends that you start treatment immediately, know that other options for being a mother may be available to you. It’s up to you to make the best decision for yourself.

**The Importance of Follow-Up Care**

After your treatment is complete, meet with your reproduction specialist and endocrinologist to monitor your fertility. Your doctor may advise you to wait for a certain period of time after having treatment before trying to become pregnant. If your period has not returned when you think it should have, tests can be run to determine the cause.

Being forced to make this type of life decision before you’re ready can add a tremendous amount of stress to an already tough situation. Being proactive about your desires for motherhood and understanding your options fully may help you make informed, confident decisions. Talking with a licensed counselor may help.

**Additional Resources**

- [Susan G. Komen for the Cure: ww5.komen.org](http://ww5.komen.org)
- [BreastCancer.org: www.breastcancer.org](http://www.breastcancer.org)
- [Surrogacy](http://www.breastcancer.org)
- [LIVESTRONG: www.livestrong.org/fertility](http://www.livestrong.org/fertility)
As a result of advances in medical research, more treatment options are available for HER2+ breast cancer. They include surgery, targeted therapy, chemotherapy, radiation therapy and hormone therapy (if you have hormone receptor-positive disease). You may also be a candidate for a clinical trial, which may give you access to new agents, such as immunotherapy, that are still in development.

Although many women are treated for breast cancer, treatment is never “one size fits all.” You will be treated based on your specific diagnosis. After reviewing your imaging, bloodwork, genetic tests and biopsies, your doctor will recommend the best treatment option(s) for you, along with some alternatives that might best fit your quality of life.

To create your personalized treatment plan, your doctor will take into account your age, general health and menopausal status, as well as the size of the tumor, its hormone receptor status (ER, PR and HER2), the stage of your cancer, genomic markers and BRCA1 (breast cancer 1) and BRCA2 (breast cancer 2) mutations. Your doctor may also adjust your treatment plan if your cancer becomes resistant to any of the drug therapies or if your cancer is recurring after previous treatment.

For most early-stage breast cancers, including HER2+ breast cancer, surgery is typically the first treatment option used. However, in some cases, your doctor may choose to treat your breast cancer with targeted therapy, chemotherapy or radiation therapy before you have surgery. This is called neoadjuvant (preoperative) treatment. Neoadjuvant treatment may be used to shrink a tumor so that it can be surgically removed. Or, it may be used to shrink a large breast tumor so that you might have more surgical options, including lumpectomy and breast irradiation therapy. Treatment given after surgery is known as adjuvant therapy. The goal is to destroy cancer cells that may remain after surgery, some of which may be too small to detect with laboratory testing or imaging studies.

Following are descriptions of the common types of treatments for early-stage HER2+ breast cancer.

A lumpectomy is called breast-conserving or breast-sparing because only the tumor is removed along with a small margin of normal appearing tissue around it. It is used for early-stage breast cancers detected as small tumors (see Figure 1). This includes Stages 0, I and II. If your tumor is relatively small and you wish to spare as much of your breast as possible, this procedure may be an option. Radiation therapy is almost always delivered after a lumpectomy to kill any microscopic cancer cells that may be hidden in the remaining breast tissue. It is important for you to discuss the likely cosmetic outcome with breast-conserving surgery because radiation can cause some shrinkage of the breast.

A mastectomy is often performed to remove larger tumors, especially when they occur in a smaller breast (see Figure 2). Several types of mastectomy exist, such as total mastectomy, modified radical mastectomy and more. Total mastectomy is the surgical removal of the entire breast. A modified radical mastectomy means that the total mastectomy is being performed (but with the chest wall muscles left in place) along with removal of a block of underarm/axillary lymph node tissue. At the end of the procedure, the surgeon will likely place drains into the area to collect fluid from the breast region. The incision will then be closed, and the area will be covered by a bandage. Your health care team will give you specific information for drainage care, if applicable.

Most mastectomy patients will be candidates for breast reconstruction surgery performed by plastic surgeons, which often is performed immediately after the mastectomy. Mastectomy patients undergoing immediate reconstruction may be eligible for enhanced cosmetic approaches, such as skin-sparing or nipple-sparing mastectomy. After the incisions have healed, outpatient radiation treatment to the breast may be necessary.

Post-mastectomy pain syndrome (PMPS), also called chronic nerve pain, is a possible side effect from a mastectomy. The most common areas to feel this pain are in the chest, armpit and/or arm. Symptoms of PMPS include tightness, burning, tingling or itching. In addition, the surgical site may also have numbness or be extra sensitive. Tell your doctor about your pain or disability so you can begin to receive treatment. Keep

CANCER RECURRENCE

One of the biggest fears you may have is the possibility the cancer will recur (come back). Recurrence is when the breast cancer comes back in the same or opposite breast after initial treatment. Your treatment plan was designed to eliminate all cancer cells; however, a few may have remained undetected. If this happens, the remaining cancer cells can multiply and become what is known as recurrent cancer.

Recurrent breast cancer may occur months or years after your initial treatment. The cancer may come back in the same place as the original cancer (local recurrence), or it may spread to other areas of your body (distant recurrence).

Treatment for HER2+ breast cancer are available to help avoid recurrence. These include ongoing medications, which will be prescribed for you to take over an extended period of time. These are typically referred to as adjuvant and/or extended adjuvant therapies (see page 10).

It is important to maintain your follow-up care to monitor for recurrence and track ongoing treatment, if applicable. Your doctor will schedule regular exams at which you will be tested for any signs of recurrence. It’s important to tell your doctor if you notice any health changes at these exams or in between appointments.
Reconstruction is an option for many breast cancer patients. Performed by an experienced plastic surgeon, it can either be done immediately (at the same time as your mastectomy) or later (within months after your mastectomy). Immediate reconstruction can be done for early-stage breast cancer (see page 14).

If you prefer, a breast prosthesis is another option. Made of artificial materials that make your breast look natural and symmetrical, an external breast prosthesis is worn inside the bra or an implantable prosthesis can be placed under the skin or muscles in the chest.

Exercising after breast cancer surgery and breast reconstruction surgery is an important part of your healing process. It is recommended that you begin with specific exercises that will help increase mobility, promote circulation and reduce stiffness and scar tissue. Your doctor will likely give you recommended exercises; however, you can typically begin with gentle stretching exercises, such as shoulder rolls or arm circles two or three days after surgery. You may follow up with additional exercises to strengthen your muscles as you feel able. If you had an exercise routine before surgery, don’t simply pick up where you left off. Before resuming any pre-surgery exercises, talk with your doctor.

Lymph node surgery is usually necessary to either stage the cancer or to control cancer that is known to have spread to the nodes. The underarm (axilla) is the most important location for management of lymph nodes in breast cancer patients. Most women with early-stage breast cancer undergo an initial staging procedure of their lymph nodes at the same time as their breast surgery. This staging procedure is called a sentinel lymph node biopsy. If the sentinel nodes contain a tumor, sometimes a bigger operation to remove additional tissue from the underarm may be necessary, and this is called an axillary lymph node dissection (see Figure 1).

Targeted therapy is a type of treatment that uses drugs or other substances to identify and attack specific types of cancer cells. For HER2+ breast cancer patients, the goal of targeted therapy is to block or interfere with the actions of certain genes or proteins, such as HER2, that are involved in the growth and spread of the cancer. This type of treatment may be used before surgery (neoadjuvant therapy) or after surgery (adjuvant therapy) and was recently approved in a new class of treatment known as extended adjuvant therapy. Taken after adjuvant treatment, extended adjuvant therapy is designed to further reduce the risk of tumors recurring.

About 20 percent of breast cancer tumors make extra copies of the HER2 gene. Targeted therapy drugs that specifically treat HER2+ breast cancer are known as anti-HER2 agents, or HER2 inhibitors. These target and attach to specific parts of this type of cancer cell to interfere with or stop its growth.

There is more than one type of HER2 inhibitor that your doctor may prescribe based on your diagnosis. Additional research shows that HER2+ treatment is more effective when combined with chemotherapy. It is important to be aware that during your treatment, your doctor may feel the need to periodically change your regimen to keep it working most effectively for you. Some regimens (used alone or in combination) may include:

- trastuzumab (Herceptin) used with chemotherapy as neoadjuvant and adjuvant therapy
- pertuzumab (Perjeta), which is used with chemotherapy, or with chemotherapy and

### IMPORTANCE OF MEDICATION ADHERENCE

**Some medications are prescribed to be taken orally** (by mouth). If your treatment plan includes an oral drug, you will still be monitored at regular appointments to track how the cancer is responding. Remember that the success of the treatment depends in part on your careful attention in following the instructions provided.

To help you, your treatment team may discuss the concept of medication adherence with you. This refers to the extent to which a person follows instructions and guidelines for medications, as prescribed.

**There are four key factors to proper medication adherence:**

1. **Taking the right drug**
2. **At the right dose**
3. **At the right time**
4. **On the right schedule**

When people don’t follow their scheduled regimen exactly as prescribed, it’s called nonadherence. Most often, nonadherence is unintentional. If you miss one or more doses of your medication because you forgot to take it, let your health care provider know.

Intentional nonadherence includes deliberately not refilling your prescriptions or taking less than recommended. Nonadherence can have a serious impact on your cancer care and can lead to increased side effects, unnecessary changes to the treatment plan, hospitalization and poor outcomes. If you are frightened about side effects, be sure to discuss your concerns with your medical team so they can assist you with your adherence.

The most serious consequence of medical nonadherence is running the risk that your treatment will be ineffective. Studies show that not taking cancer medication as prescribed by a doctor can lead to cancer progression or recurrence. Because of how the drugs work, even small alterations to a treatment regimen can lead to failure.

It’s important to stick to your treatment plan exactly as your doctor prescribed. The only people who should alter it are members of your health care team. Treatment regimens are the most beneficial if decisions are shared by you and members of your health care team, so communicate often with them about any questions or concerns you have to be sure you’re taking your medication as prescribed.
exploring multiple treatment options

Chemotherapy is the use of drugs to stop the growth of cancer cells either by killing them or preventing them from dividing and growing. Chemotherapy drugs are usually given in a regimen, which includes the drugs to be used, the dosage and the specific time period. For early-stage HER2+ breast cancer, chemotherapy may be given as a combination of two or three drugs together or one after the other.

Chemotherapy may be given before surgery (neoadjuvant therapy) or after surgery (adjuvant therapy). When given before surgery, it may be used to shrink a tumor so it can be surgically removed or to reduce the tumor’s size to allow for a lumpectomy rather than a mastectomy. Adjuvant chemotherapy is given to destroy cancer cells that may remain after surgery, some of which may be too small to be detected with laboratory testing or imaging studies. This can be life-saving and decrease the risk of recurrence in higher-risk patients.

Chemotherapy can be given orally, intravenously through a vein in your arm, or many people have a port installed so that they can receive the medicine without repeatedly being stuck with a needle or damaging their veins. A port is surgically inserted under the skin in the upper chest area to gain easy access to veins. Once chemotherapy ends and you no longer have the need for easy access to your veins, the port is removed. Your medical team will show you how to care for your port if you receive one.

Radiation therapy is another treatment used to treat HER2+ breast cancer. The most common type of radiation therapy is external-beam radiation therapy (EBRT). EBRT is delivered from an external machine. Internal radiation, or brachytherapy, may also be used either alone or in combination with EBRT. Brachytherapy involves placing radioactive seeds through a catheter into the breast to deliver radiation directly to the area where the tumor was removed.

Radiation therapy is almost always done after lumpectomy to destroy any cancer cells that may remain hidden in normal-appearing breast tissue. Research shows that women with a small tumor who have radiation therapy after a lumpectomy live as long as those who have a mastectomy. Radiation therapy is sometimes necessary after a mastectomy and is typically recommended for individuals at high risk for cancer recurrence on the chest wall, such as women with cancer in multiple axillary lymph nodes.

Hormone therapy, also known as endocrine therapy, may be included in your treatment for HER2+ breast cancer if your tumors are also estrogen receptor positive (ER+) or progesterone receptor positive (PR+). Hormone therapy treats these types of breast cancer by either lowering the amount of estrogen in your body or by blocking the hormone receptors on the cancer cells.

Many types of hormone therapy drugs are available. Most people with ER+ or PR+ breast cancer may continue taking hormone therapy for several years. If the tumor grows during hormone therapy, other options may be available.

Resistance to treatment

Resistance occurs when breast cancers that were responding to treatment begin to grow again. Resistance may be caused by several factors. Ongoing research seeks to understand and overcome these factors. The promising news is that if disease progresses during treatment, a different drug may be an option. Scientists are experimenting with different drug combinations, developing new drugs and evaluating the order in which drugs are given (sequential treatment) as a way to address drug resistance.

Additional resources

- American Cancer Society: www.cancer.org
- American Society of Clinical Oncology: www.cancer.net
- BreastCancer.org: www.breastcancer.org
- Living Beyond Breast Cancer: www.lbbc.org
- National Cancer Institute: www.cancer.gov

10 PatientResource.com
Managing Side Effects of Treatment

Discuss your fears and concerns about side effects with your doctor before beginning treatment. Knowing the side effects to expect and when will make you better prepared if they do occur. Preventing and managing them is extremely important for the success of your treatment because the better you feel, the more likely you’ll be able to complete your treatment as planned, which offers a greater chance for a successful outcome. Tell your medical team as soon as symptoms or side effects begin, even if you consider them trivial.

Following are some of the most common side effects and suggestions for preventing or managing them.

**Diarrhea** is the passing of loose or watery stools three or more times a day, which may cause cramps in the abdomen and pain or discomfort in the rectum. Diarrhea is common with chemotherapy and less common with targeted therapy.

When mild, diarrhea is an inconvenience. If left untreated, it can lead to serious problems, such as dehydration, loss of important nutrients, weight loss and fatigue. Your doctor may check you for a Clostridium difficile (C. diff) infection.

Once diarrhea occurs, consuming only clear liquids may help the lining of your intestines heal. Clear liquids include water, cranberry juice, ginger ale, clear broth, popsicles, decaffeinated tea and gelatin. Over-the-counter medicines and fiber supplements are available to control diarrhea, but ask your doctor before taking anything. If diarrhea is severe, your doctor may prescribe other medications or choose to stop your cancer treatment temporarily until your diarrhea is controlled.

You might even be able to anticipate bouts of diarrhea based on prior episodes you have experienced during your chemotherapy treatments. If so, mark your calendar so that you aren’t scheduling yourself to be out for a walk or having company when it is most likely to happen.

**Nausea and vomiting** may be caused by many drug therapies, such as chemotherapy and targeted therapy. These side effects occur as the result of a series of reactions between your stomach and your brain, which start when cancer drugs damage the cells lining the inside of the stomach.

It is much easier to prevent nausea and vomiting than to control them once they’ve started. Recent advances have led to the development of prescription drugs called antiemetics, which can prevent and control them. To further protect yourself, you may consider nondrug approaches, such as progressive muscle relaxation, biofeedback, guided imagery, self-hypnosis and acupuncture. Eating several small meals rather than a few big meals a day, staying hydrated and avoiding unpleasant odors can also help. Avoid eating your favorite foods after your chemotherapy is completed; they might not be your favorite foods anymore if you associate them with nausea and vomiting.

Once diarrhea occurs, consuming only clear liquids may help the lining of your intestines heal. Clear liquids include water, cranberry juice, ginger ale, clear broth, popsicles, decaffeinated tea and gelatin. Over-the-counter medicines and fiber supplements are available to control diarrhea, but ask your doctor before taking anything. If diarrhea is severe, your doctor may prescribe other medications or choose to stop your cancer treatment temporarily until your diarrhea is controlled.

You might even be able to anticipate bouts of diarrhea based on prior episodes you have experienced during your chemotherapy treatments. If so, mark your calendar so that you aren’t scheduling yourself to be out for a walk or having company when it is most likely to happen.

**ADDITIONAL RESOURCES**

- **American Society of Clinical Oncology:** [www.cancer.net](http://www.cancer.net)
- **Managing Emotions**
- **National Cancer Institute:** [www.cancer.gov](http://www.cancer.gov) [Feelings and Cancer](http://www.cancer.gov/feelings)
- **National Comprehensive Cancer Network:** [www.nccn.org](http://www.nccn.org) [Symptoms of Cancer and its Treatment](http://www.nccn.org)
**Hair loss** (alopecia) is most often caused by drug therapies, such as chemotherapy and targeted therapy, as well as radiation therapy. It occurs because these treatments work by killing rapidly dividing cells, such as cancer cells. Because healthy cells in the hair follicles also divide rapidly, they may be damaged, too, which causes hair loss. Drug therapy typically causes loss of hair on the head, face and other parts of the body, which may start seven to 10 days after the first cycle of treatment begins. Radiation therapy causes hair loss in the area of the body being treated. Hair loss is usually temporary.

You may choose to cut your hair, shave your head or buy a wig. You may be more comfortable wearing a scarf, head wrap or hat. Ask your oncologist for a prescription for a wig. Using certain phrases, such as “cranial (or skull) prosthesis due to alopecia caused by treatment for cancer” may make the wig eligible for insurance coverage. Contact the American Cancer Society to ask about free wigs for patients undergoing cancer treatment.

Scalp cooling has been effective in preventing hair loss for some people receiving chemotherapy. Also called cold cap therapy, scalp cooling involves wearing a helmet-shaped cap filled with soft gel packs cooled to between -15 to -40 degrees Fahrenheit. The cap is worn before, during and after chemotherapy. The cold reduces blood flow to the head, which makes chemotherapy drugs less likely to reach and destroy the hair follicles.

**Fatigue** occurs primarily because the body needs extra energy to repair the healthy tissue damaged by cancer treatment. Different from the fatigue that healthy people feel, this type of fatigue usually lasts longer, is more severe and is unrelieved by sleep. If possible, perform regular exercise, such as walking or yoga, to help you feel more energetic. Power walking for 30 minutes, five times a week, can diminish fatigue by as much as 71 percent. Take frequent naps, and limit them to no more than 20 to 30 minutes. Chemotherapy and radiation therapy are known to cause fatigue. Targeted therapy usually does not cause fatigue.

**Neutropenia** (low white blood cell count) commonly occurs in people treated with chemotherapy. Neutropenia is a low number of neutrophils, a type of white blood cell. Neutrophils play an important role in preventing infection throughout the body. Having an abnormally low number of them increases the risk of getting an infection, such as pneumonia, bronchitis, sinusitis or shingles. Neutropenia also makes it more difficult for an infection to resolve. The lower the neutrophil count, the greater the risk for infection.

**Thrombocytopenia** (causing bleeding/bruising/clotting issues) can be caused by some chemotherapies because they may interfere with the body’s ability to make platelets, a type of blood cell. Thrombocytopenia can lead to bleeding and clotting problems, as well as easy bruising. Avoid taking Omega 3 supplements, aspirin and other blood thinners while you’re being treated, and inform your doctor about any other supplements you may be taking.

**Lymphedema** (abnormal swelling) commonly occurs after surgery or radiation therapy. When lymph nodes are removed, lymph can build up, which can cause swelling in the area where the lymph nodes were removed. Your doctor may recommend wearing a compression garment that has been properly fitted by a certified lymphedema therapist. It may be helpful to elevate the swollen limb. Talk with your doctor about low-level laser therapy to help relieve swelling in the arms, which often occurs after mastectomy.

**Neuropathy** is pain or discomfort caused by damage to the peripheral nervous system, which includes the nerves that control movement and feeling in the arms and legs. Symptoms include numbness, pain, burning, tingling and loss of feeling in the hands or feet. Additionally, if you are diabetic, this side effect can worsen existing symptoms. Contact your oncologist about prescription medicines designed to relieve neuropathic pain.

**Sexuality issues** may develop during breast cancer treatment, especially if you associate your breasts with your self-image. After treatment, your breasts may not look the same. They may be scarred or may have been removed. As a result, how you feel about your body and how you relate intimately to your partner may change. Reduced sexual desire and feeling less desirable are common, but that doesn’t mean you have to accept them as normal. Your doctor may not bring up sexuality issues, so it is important that you do.

**Oral mucositis** (mouth sores) are small cuts or ulcers that can affect the gums, tongue, roof of the mouth or lips. Mouth sores sometimes begin as mild pain or burning, followed by white patches that may become large, red lesions. Pain may range from mild to severe, making it difficult to talk, eat or swallow. Your doctor may suggest rinsing your mouth with special solutions and may prescribe a medication that coats the lining of your mouth or that can be applied topically.

**Anemia** (low red blood cell count) is common with chemotherapy. Red blood cells carry oxygen to the body’s tissues. Anemia can cause many symptoms, most often fatigue and weakness, and can be temporary or long-lasting.

**Skin reactions** may occur from many types of treatment and may include redness and irritation (similar to sunburn), rash and itchy or dry, flaky skin.

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**ADDITIONAL RESOURCES**
- **American Cancer Society**: [www.cancer.org](http://www.cancer.org)
- **American Society of Clinical Oncology**: [www.cancer.net](http://www.cancer.net)
- **Cancer Support Community**: [www.cancersupportcommunity.org](http://www.cancersupportcommunity.org)
Whether you are just starting treatment for early-stage HER2+ breast cancer, are actively treating it or are in maintenance or extended adjuvant treatment, adopting a healthy lifestyle can benefit you both physically and mentally. Eating a nutritious diet, maintaining a healthy weight, limiting alcohol, exercising, taking good care of your skin and not smoking are all smart choices. Having a well-balanced lifestyle may help you tolerate treatment better, lower the risk of a recurrence or the risk of other chronic diseases, and help protect against secondary cancers.

Choose nutritious options
It’s important to make smart eating choices before, during and after treatment. Guidelines for good nutrition include eating enough fruits, vegetables and high-quality protein, drinking plenty of fluids, and limiting the amount of fat in your diet.

Eating enough protein may be especially important for you to maintain your strength because it is easy to become fatigued as your body fights the cancer and the effects of treatment. Consider choosing lean proteins, plant proteins and low-fat dairy products to increase your protein intake.

Limit the amount of alcohol, heavily processed meats, dairy and sugary foods. If you are unsure what foods offer you the best health benefits, ask your doctor to recommend a registered dietician to help you plan meals and shopping lists during cancer treatment.

Maintain a healthy weight
Your weight can fluctuate due to cancer treatment and its side effects. A registered dietician can help tailor an eating plan for you. In some cases, it may be difficult to maintain your appetite, which may lead to weight loss. It may be necessary to gain weight or maintain your weight while in treatment. Consider eating several small meals or snacks each day, eat foods high in protein, replace water with milk in recipes, and add dairy items to meals, such as cheese, yogurt, ice cream and cottage cheese. Try to eat a variety of foods and choose nutrient-dense foods to maximize your nutrition.

Fatigue and lack of exercise, combined with steroid treatment, may cause weight gain. Carrying extra weight may increase your fatigue and may affect your hormones, which can also affect your weight. Hormone therapy often increases your chance of gaining weight and makes it difficult to lose weight. Counting calories and increasing physical activity may help you lose extra weight.

Be active
Participating in physical activities or regular exercise can help you feel better overall. Although it may not seem to make sense, physical exercise is actually the best treatment for fatigue. Studies have shown that people with cancer who exercise regularly feel less tired and have more energy.

Think about the type of physical activity you enjoy most and do it daily, or as often as you can tolerate. Try to modify your favorite form of exercise if it causes any pain or discomfort, rather than discontinue it. It may be helpful to consider exercise as a form of medicine that your body also needs to beat cancer. Remember to use sunscreen if your activities are outdoors.

Get enough rest
Sleep disturbances are common among people with cancer. One reason is that fatigue related to cancer and its treatment leads people to take frequent naps during the day, which then makes it difficult to sleep at night. You can still set aside time in your day to rest or take naps, but limit them to 20 to 30 minutes each, and avoid napping in the late afternoon or early evening. Your doctor may review the medications you are taking and change them if drug interactions or side effects are contributing to your sleep problems. Your doctor may also recommend a medication to help you sleep.

Stay emotionally healthy
Living with cancer can often feel like being on an emotional rollercoaster. Allow yourself to express your emotions freely. Finding ways to reduce and manage stress will strengthen your coping abilities. Some possibilities include journaling, meditation, guided imagery, muscle relaxation and yoga. Ordinary “escapes,” such as reading, watching television and playing games, can also help you relax.

ADDITIONAL RESOURCES

Breastcancer.org: www.breastcancer.org
Program Can Help Ease Body Image Concerns and Improve Quality of Life
Writing Program Can Help Ease Body Concerns After Treatment
Living Beyond Breast Cancer: www.lbbc.org
Diet, Nutrition and Exercise Tips for Healthy Eating
Susan G. Komen for the Cure: www5.komen.org
Healthy Lifestyle for Breast Cancer Survivors
After breast cancer surgery, having your body look like it did (or as close as possible) before cancer may be part of your healing process. It may help you feel like your pre-cancer self. Or, you may just want breasts to have your silhouette whole again. On the other hand, having new or reconstructed breasts may not be important to you. Reconstruction is an extremely personal decision that requires much consideration. Explore your options, talk to your treatment team and learn about other women's experiences. Every feeling – and you’ll likely have a mixed bag of them – is valid. The bottom line is that it’s your body, and the choice is yours.

Breast reconstructive surgery, which should be performed by an experienced plastic surgeon, is typically done, or at least the first phase started, at the same time as a mastectomy but can happen later (within months after the mastectomy). It may be done during or after a lumpectomy when the surgery will cause the affected breast to appear significantly different from the other after the tumor is removed.

Different types of breast reconstruction techniques are available. They may involve the use of a breast implant or a flap of tissue (usually containing skin, fat, possibly muscle and blood vessels) from elsewhere in your body, or a combination of the two (see Breast Reconstruction Options). The use of a tissue flap depends on the size of your breasts, your body type, activities you enjoy doing (such as golf or swimming), whether your breast has been radiated in the past and preferences regarding appearance.

Implants (saline or silicone) involve less surgery than a tissue flap. When an implant is used, the overlying chest wall muscle and skin may be stretched to accommodate the implant. This is usually accomplished by inserting a tissue expander under the muscle. This acts as a temporary placeholder and is gradually inflated with fluid injections through the skin until the breast reaches the desired size. In some situations, the implant is actually placed on top of the muscle but underneath the skin and fascia. Advances in implant-based reconstruction surgery include alternative options for the type and location of the implant.

Non-surgical options also exist. If you prefer not to have additional surgery or want the appearance of breasts while you are waiting to have reconstructive surgery later, you may consider a breast prosthesis. Made of artificial materials that make your breast look and feel natural and symmetrical, a breast prosthesis is either worn inside a mastectomy bra or attached to the body with special adhesive. When worn inside a mastectomy bra, it fits into a pocket sewn into the cup. You can have a pocket sewn into your regular bra, but it is usually best to buy a mastectomy bra with an existing pocket. Mastectomy bras are covered by insurance, too. You can also use a breast prosthesis that attaches to your chest wall with a special adhesive. You must wait until you have healed after surgery before you can be fitted for a permanent breast prosthesis. If you have had chest wall radiation, it is typically not advisable to use the type that requires adhesive.
Reconstruction is a choice that you will make based on many factors and a lot of soul-searching. Begin by reflecting on your relationship with your breasts. Do you remember being fitted for your first bra? Do you enjoy bra shopping? Are your breasts a primary part of your intimate relations? Do you enjoy wearing clothes that accent your cleavage? Perhaps you are small breasted and see this as a silver lining in an otherwise scary time and want to consider getting larger breasts. As you think about what is best for you, also consider the following.

- The breasts are not essential organs for life, but they may play an important role in psychosexuality and a woman’s personal sense of femininity.
- Reconstruction requires a long healing period, which can potentially delay the start of chemotherapy or interfere with delivery of possible postmastectomy radiation. If you’re considering reconstructive surgery (even if it will be done later), discuss it with your breast cancer surgeon and a plastic reconstruction surgeon who specializes in breast reconstruction before the mastectomy so they can properly plan your treatment.
- Your plastic surgeon will work with you to set expectations for what your new or reconstructed breasts will look like. Keep in mind that your body will not look exactly like it did before treatment.
- When to have reconstruction is important. Some women have a “let’s get it all done at once” mindset. Others may want to finish one part of the treatment before moving on to another. Both of your surgeons can advise you about the best medical decision for you. Factor in how well you recover from surgical procedures, and ask about the time it takes for the reconstruction process.
- Ask what kinds of drains you will have and how long they will be there before they are removed.
- You may develop phantom limb pain. Your brain may treat your breast as if it were a limb. This can be temporary or can linger for a long time. Over time, the brain adjusts to understanding the absence of the breast.
- Ask if you are a candidate for nipple and areola sparing mastectomy and about nipple reconstruction and areola tattooing.
- Many advocacy groups offer peer counseling, giving you the opportunity to ask specific questions to women who’ve gone through various reconstruction procedures. Ask your nurse navigator to recommend resources, and see the listings in the back of this guide.

3 STEPS TO YOUR BEST SELF

If you’re like many women, you may struggle with your level of satisfaction regarding your body image even on your best (and healthiest) days. Add having breast cancer to the mix, and it’s easy to see how your self-image can easily decline. Although you should remember that who you are inside is what counts, it’s easy for your mood to be affected in a negative way when you don’t feel good about your appearance. Keep these three things in mind to help you feel like your best self, inside and out:

1. **Mourn what you’ve lost.** As odd as it may sound, mourning a body part or feature is a real thing, and you have every right to be sad about losing your breasts or your hair. Do not give yourself a hard time about getting upset over something that feels vain or superficial. It’s not. As with anything else you lose that is part of you, such as a family member or a pet, it’s important to recognize the loss and give yourself time to get over it.

2. **Acknowledge or even celebrate the change.** Since you know ahead of time about the expected physical side effects, find an upbeat way to prepare for them. It can help you and those close to you, especially children who may not understand or could be alarmed by your change in appearance. Some women plan “going-away” parties for their breasts. Others want to do the process of preparation quietly.

3. **Keep up your beauty routine.** For many women, work, school, kids and life go on during treatment, and it is challenging to look and feel your best. Looking like your best self can boost your mood. Try these practical suggestions.

**HAIR**

- If you need chemotherapy, speak with your doctor(s) about scalp cooling programs to reduce the hair loss (alopecia) that typically accompanies this type of treatment. Scalp cooling devices can minimize alopecia but are not a guarantee against hair loss. They are also costly and not typically covered by insurance.
- Ask your doctor for a prescription for a “cranial (or skull) prosthesis due to alopecia caused by cancer treatment.” This is actually a wig, but the appropriate phrasing may improve eligibility for insurance coverage. You can also contact the American Cancer Society about free wigs for patients undergoing cancer treatment.
- Before starting treatment, have a stylist cut and color your wig to match your own hair.
- Usually your doctor or nurse can tell you within a 24-hour time period when to expect your hair to fall out based on the drugs you will get.
- Protect your head by using sunscreen or wearing a head cover. During cold weather, you lose 80 percent of your body heat from the top of your head.
- If you still have hair or, when your hair begins to grow back, use gentle shampoos and conditioners, a wide-toothed comb or soft-bristled brush.
- Avoid blow dryers, hair dye, curling/straightening irons, clips and elastics that can harm fragile hair.
- Sleep on a silk pillowcase to reduce friction.

**SKIN/MAKEUP**

- Treatment can cause patchiness or discolored areas of your skin that is usually temporary. Choose a foundation that helps even out your skin tone, and use a concealer to hide dark circles under your eyes.
- Use gentle soaps and lotions that are free of dyes and perfumes.
- If you lose your eyebrow hair, use eye shadow or an eyebrow pencil that is a shade darker than your natural eyebrow color to give them definition. Gradually fill them in and smudge until you get the look you like.
- If you still have hair or, when your hair begins to grow back, use gentle shampoos and conditioners, a wide-toothed comb or soft-bristled brush.
- Avoid blow dryers, hair dye, curling/straightening irons, clips and elastics that can harm fragile hair.
- Sleep on a silk pillowcase to reduce friction.

**NAILS**

- Keep your nails trimmed short.
- Wear gloves when gardening and cleaning.
- Avoid professional manicures and pedicures unless you find a spa that specializes in customers who have cancer.
- Ask your doctor before using dark polish.
- Report signs of infection (dark or lifted nail beds) to your doctor as soon as possible.

**CLOTHES**

- Find a shop that specializes in mastectomy bras, head coverings, swimsuits with “built-in breasts” and other post-surgical needs.
- Manage drains and weight changes by wearing clothes that are comfortable.
Helping a Loved One with Breast Cancer

Caring for a loved one with early-stage HER2+ breast cancer presents certain challenges. In addition to providing traditional caregiving activities, such as preparing meals and driving to appointments, you will be called on to offer emotional support. Your flexibility will be key, as her needs will change as she wraps her arms around this unique and very personal diagnosis. Treatment will likely last for years, and it may overwhelm her to think she has such a long road ahead. The physical changes that accompany treatment may be difficult for her to accept, too, especially if she undergoes a mastectomy.

Depending on what she needs and when she needs it, you can be her cheerleader, her sounding board, her confidante, someone to laugh and cry with, or just a really good listener. Your commitment and kindness will be instrumental in helping her stay positive. Here are many ways you can make a difference for her.

► Educate yourself. Learn everything you can about early-stage HER2+ breast cancer. When you attend medical visits with her, don't be afraid to show you've done your research by asking questions. Make sure you understand the current status of the cancer and the treatment plan. The more informed you are, the better advocate you will be.

► Attend medical visits. It may be difficult for her to understand or remember all the information from the doctor. Two heads are better than one. Bring a list of questions to each medical visit, take notes and offer reminders later for follow-up items.

► Treat her the same as you did before. Remind her that she is the same person she was before the cancer diagnosis. She may look different on the outside without her breasts or her hair, but let her know that you don't see her any differently. This is important because she may not feel like herself and may be very self-conscious about her changed appearance.

► Be a thoughtful listener. Sometimes your loved one will want to talk about cancer. Don't dismiss her feelings by saying such things as “Don't worry about it,” or “It’s going to be fine.” Just listening is often a source of comfort.

► Be a hall monitor. Many people may want to visit. When you're both up for it, act as the good host. But don't be afraid to graciously turn away visitors when one or both of you needs to rest or just enjoy quiet time.

► Suggest support groups. A strong support system helps in many ways. If family and friends aren't nearby, check out the support groups in the area. Online support groups and peer-to-peer counseling also offer the option of connecting with people without having to leave home.

No matter how close you are to your loved one, you are not experiencing the same things. Connecting with others who are dealing with the same fears, feelings and experiences can be a valuable experience.

► Respect her feelings. Women have different comfort levels when it comes to talking about their breast cancer. Although some women may be ready to organize a 5K for breast cancer awareness, others may prefer to be more private.

► Know when to seek professional help. There may be a time when your loved one needs to talk with a mental health professional or therapist (see Emotional Side Effects, page 11). Your loved one's health care team can also recommend a resource.

► Accept help. When friends offer to help, take them up on it by giving them very specific things to do, such as picking up prescriptions, shopping, making a meal, babysitting or helping with outdoor chores. Their assistance will free up your time and allow them to feel like they're contributing.

► Take care of yourself. Caregiving is a mentally and physically exhausting responsibility. Eat right, exercise and get enough sleep. Don't ignore your favorite hobby, and don't feel guilty when you enjoy yourself. Last, but not least, attend your annual medical checkups.

► Embrace a new role. Shopping for groceries, meal planning and meal preparation may not be something you've traditionally handled. Your willingness to take on these duties will relieve some of her stress associated with her daily responsibilities.

The Gift of Friendship

Friends often like to bring a gift when they come over. Make sure they know that simply visiting is enough. If they insist, offer these helpful suggestions:

► Silk or satin pillowcase
► Fluffy robe or soft socks
► A ball cap or fleece hat
► Books (audio or print) or magazines
► Journal
► Stationery
► Favorite foods
► Gift certificate for housecleaning