

Guide to Understanding Breast Cancer



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An estimated 280,000 women in the United States are diagnosed with breast cancer each year, and one in eight will be diagnosed during their lifetime. While breast cancer is a serious disease, most patients can go on to live a normal life with early detection and treatment. In fact, when breast cancer is detected early, in the localized stage, the five-year survival rate is 99 percent.

A breast cancer diagnosis can be unexpected, and it can have a profound impact on a patient's life. However, advances in treatment have allowed many women to overcome breast cancer. Understanding the risks associated with breast cancer and taking proactive steps toward early detection can greatly improve chances of survival. In this helpful guide, we explain breast cancer, how it is detected and treated, and steps you can take to help detect it early.

What Is Breast Cancer?

Breast cancer occurs when a mass of abnormal-looking cells forms in the breast. These cells may be confined to their place of origin, or they may spread into surrounding tissue or other parts of the body. There are three primary types of breast cancer:

- **Lobular carcinoma:** This is considered a pre-cancer, which is a marker that indicates a higher risk of developing breast cancer. Lobular carcinoma forms in milk-producing glands in the breast and rarely spreads to surrounding tissue.
- **Ductal carcinoma:** This is the most common type of breast cancer. It begins in the milk ducts but may spread to the surrounding tissue if left untreated.
- **Inflammatory breast cancer:** This is a rare but aggressive form of ductal carcinoma that grows very quickly. It may resemble a breast infection because the breasts appear red and swollen.

The Importance of Regular Breast Exams

Breast exams, including self-exams, clinical exams and mammograms, are critical to early breast cancer detection. The American Medical Association suggests that all women begin regular self-exams at the age of 20. You also should begin to get annual mammograms at age 40, unless you have a personal or family history that would lead to screening at a younger age. Talk to your doctor about how to properly perform a self-exam at home, as well as your genetic predisposition for breast cancer.

Symptoms of Breast Cancer

Symptoms of breast cancer may include:

- Lumps or masses in the breast that feel different than the surrounding tissue
- Breast pain or tenderness
- Changes in size, shape, texture or color of the breasts
- Nipple changes or fluid discharge
- Swelling in the armpit, along the breastbone or collarbone or at the sides of the neck

If you experience any of these symptoms, even if a recent mammogram was normal, you should schedule an appointment with your doctor as soon as possible.

Causes and Risk Factors

While the exact cause of breast cancer is unknown, several risk factors make it more likely for you to develop it. Some of these factors include:

- **Age** Breast cancer risk increases with age.
- **Personal or family history** If you have had breast cancer in one breast, you have an increased risk of developing cancer in the other breast. Also, if your mother, sister or daughter was diagnosed with breast cancer, your risk of breast cancer is increased.
- **Other risk factors** The use of hormone replacement therapy, delaying pregnancy or never becoming pregnant are also risk factors for breast cancer. Having one or more of these risk factors doesn't necessarily mean you'll develop breast cancer. In fact, many women who develop breast cancer have no known risk factors other than simply being female. If you are concerned about risk factors, talk to your doctor about early detection.

Diagnosis and Staging

The diagnosis process is important for determining the presence and severity of breast cancer, as well as prescribing the best available treatment plan. During your visit, your doctor will take a thorough family history and perform a physical exam.

Breast imaging tests, such as a mammogram or ultrasound, may be recommended. If your doctor finds a suspicious breast lump or if the imaging tests show an area of concern, he or she may recommend a biopsy.

After tissue has been removed during the biopsy, it will be sent to pathology for examination under a microscope. The pathologist will then determine if cancer cells are present or not. This process may take several days. Once the process is complete, your doctor will discuss the results with you. If the biopsy shows that cancer cells are present, other imaging and lab tests may be needed.

Once breast cancer has been diagnosed, more tests may be done to determine if the cancer has spread from the breast to other parts of the body. This is called staging, and it helps your doctor plan treatment.



Genetic Counseling

It is estimated that 5 to 10 percent of breast cancer is hereditary. Genetic counseling helps patients assess their family's risk for cancer for the purpose of promoting awareness, early detection and prevention. Our Cancer Genetics and High-Risk Care Center is an invaluable resource for families who want to assess their future cancer risk.

Our genetic counselors are specially trained healthcare professionals with advanced graduate education and expertise in medical genetics and counseling. They are here to help you through the genetic testing process. Genetic counseling requires up to two visits. During your sessions, our counselors will:

- Discuss the risks, benefits and limitations of genetic testing
- Give you up-to-date information about cancer genetics
- Review your family's medical history to determine if you have hereditary risk factors
- Review your test results and discuss screening and managing your medical history going forward

Our counselors are dedicated to providing your family with quality, comprehensive service for cancer risk assessment.

Treatment at the Breast Care Center

Each case of breast cancer is unique, and a variety of treatment options may be available depending on the type of breast cancer, its stage and grade, hormone sensitivity and your overall health. At the Breast Care Center, our multidisciplinary team of expert surgical, medical and radiation oncologists – all with specialty training in breast cancer – along with plastic and reconstructive surgeons, collectively evaluates each case to determine the best possible outcome for our patients.

Tumor boards also are a staple in developing care plans at Orlando Health Cancer Institute, furthering our goal to provide unified, comprehensive care. Physicians across several cancer subspecialties, including breast, collaborate with a wide range of experts – from neurosurgeons and radiation oncologists to speech therapists and nurse navigators – on diagnoses and treatments for their patients. Tumor boards are held to discuss complicated cases and try to reach consensus on the best specific and individualized treatment.

Breast Cancer Surgery

One of the most common treatments for breast cancer is surgery, and many women also receive additional treatments, such as chemotherapy or radiation. Surgery may include the removal of just the cancer, known as lumpectomy, or it may call for the removal of one or both breasts, known as mastectomy. Surgery also may be required to remove one or several lymph nodes.

Our expert team is very conscious of the implications of lymphedema when lymph nodes are removed and will only remove what is necessary for treatment. To mitigate any occurrence of lymphedema, we also perform lymphovenous bypass surgery (LVBP) at the time of removal.

During this microsurgical procedure, surgeons build connections between the veins and the lymphatic vessels, which helps contribute to overall drainage of the extremity where the lymph nodes are located.

For patients who require a mastectomy or choose to undergo the procedure, breast reconstruction may be an option. Our dedicated team of breast cancer surgeons and reconstructive surgeons work together – even on the day of the first surgery – to offer treatment options that preserve the breast's natural appearance following reconstruction, while also being mindful of each patient's end-to-end treatment process.

Chemotherapy

Chemotherapy uses drugs to destroy cancer cells. It is sometimes given before surgery to shrink the size of the tumor, making it easier for the surgeon to remove the cancer. It also may be necessary after surgery if the cancer is likely to return or spread to another part of the body.

There are some common side effects caused by chemotherapy, including nausea, vomiting, hair loss, fatigue and an increased risk of infection. Other side effects can include damage to the heart and kidneys, premature menopause, nerve damage and blood cell cancer, though these are rare.

Orlando Health Cancer Institute has symptom management programs in place, like our Integrative Medicine department, that will help manage or mitigate these possible symptoms.

Clinical trials are another way to help manage possible symptoms of treatment for cancer patients. Ask your care team about clinical trials that may be available to you.



Radiation Therapy

Radiation therapy is a key part of the cancer treatment process that is often used following surgery. It involves using high-powered energy beams to target and kill residual cancer cells in the breast, chest wall or nearby nodes after surgery. It also may be used to alleviate symptoms that result from advanced-stage disease.

The most common form of radiation therapy is known as external beam radiation. This involves using a machine that directs the energy beams at the part of your body affected by cancer. Alternatively, radiation also can be performed by placing radioactive material inside your body. This process is referred to as brachytherapy. Like chemotherapy, radiation therapy commonly causes several side effects. These include fatigue and a temporary rash at the location of the treatment. Breast tissue also may appear swollen or more firm. Although rare, more serious problems may occur, such as damage to surrounding organs.

Proton Therapy

Proton therapy is another form of radiation therapy. Like other types of radiation therapy, it works by damaging the DNA of cancer cells, which causes the cells to die and the tumor to shrink. However, proton therapy is different from other types of radiation therapy because it uses protons to deliver radiation. The nature of protons allows them to be manipulated to release most of their energy within a tumor with little to no dose in the surrounding healthy tissue. The result is a more precise radiation customized for each patient's particular tumor treatment and with fewer side effects – which is particularly important for patients with certain types of cancer.

Because proton therapy is so precise, it is often the recommended type of radiation treatment for patients with tumors that are located near critical organs or highly sensitive areas, such as breast tumors, especially those on the left side. It also is an important treatment option for tumors that can't be removed completely with surgery. Proton therapy also decreases the risk of radiation-induced cancer.

Alone or in combination with other treatments, proton therapy is well suited for many types of cancer and benign conditions.

Endocrine or Hormone-Blocking Therapy

If tests show that the breast cancer cells contain estrogen and progesterone receptors, you may be given hormone-blocking therapy. Hormone-blocking therapy is used to change the way hormones in the body help cancers grow. This may be done by using drugs that block the action of hormones or by performing surgery that removes hormone-producing organs, such as the ovaries.

Hormone-blocking therapy is typically used in conjunction with some combination of surgery, radiation therapy and chemotherapy. By incorporating hormone-blocking therapy into your treatment plan, it can help decrease the chance of your cancer returning. If the cancer has already spread, hormone-blocking therapy may help to shrink and control it.



Research and Clinical Trials

At Orlando Health Cancer Institute, we are committed to offering our patients access to the latest and most advanced options for comprehensive cancer care. Our participation in ongoing research and clinical trials is one way we provide these options.

Clinical trials are designed to test the effectiveness and safety of new cancer treatments and medications for the prevention, diagnosis and treatment of cancer as well as lessening side effects of cancer symptoms and treatments. Almost all cancer therapies used today started as a clinical trial.

Clinical trials allow eligible patients to play an active role in their own healthcare with the added benefits of receiving treatments not yet available to everyone, obtaining expert medical care at leading healthcare facilities during the trial and helping others by contributing to medical research. Talk with your care team about breast cancer specific clinical trial options.

Nutritional Counseling

Maintaining a healthy and balanced diet is an important part of any cancer treatment plan. Our registered, licensed dietitians work with our medical team to provide you with nutrition education and support before, during and after treatment.

Our services include individualized meal plans, education on healthy eating and ongoing follow-up visits for a healthy lifestyle after treatment. We also offer a specialized nutrition class for our breast cancer patients undergoing treatment.

Our nutrition services are available at no cost to our patients.



Cancer Support Community

We host an affiliate chapter of the Cancer Support Community, open to anyone in Central Florida impacted by cancer – patients, survivors and caregivers. The Cancer Support Community addresses your social and emotional health with a large variety of classes offering healing therapies, such as tai chi, laughter yoga, journal writing, expressive arts and support groups, ensuring you do not face cancer alone.

Survivorship Clinic

This follow-up program provides care to patients who have survived cancer or are in long-term therapy to prevent cancer from returning, or to those at high risk of developing breast cancer in the future.

Nurse Navigators

A cancer diagnosis is often an overwhelming and frightening experience. Our nurse navigators help guide patients by working to assist with entry into the cancer care system and identifying any barriers that may exist. At the Breast Care Center, we have nurse navigators specific to breast cancer. They will initiate and maintain communication between patients, families, physicians and the healthcare system.

Nurse navigators can assist in many ways, including:

- Provide emotional support and information on what to expect and help streamline care
- Help patients and families understand their diagnosis and treatment options
- Coordinate appointments and tests to avoid delays to treatment
- Help patients and families access support systems and services

Our Approach to Treatment

At the Orlando Health Cancer Institute, we understand how difficult the journey through breast cancer can be. Our goal is to support you with a team of knowledgeable and caring physicians who are focused on helping you overcome this disease. Our commitment is to provide our patients with hope through outstanding, personalized care.

If you have been diagnosed with breast cancer, contact us today.

Our compassionate and knowledgeable breast care team is here to talk you through even the most complex procedures.



To make an appointment with an Orlando Health Cancer Institute physician, call **(841) 843-8370**.

To learn more, visit **OrlandoHealth.com**

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