BREAST CANCER (Uareness 2025



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Possible early warning signs for breast cancer

Swelling of all or part of a breast:

Swelling may be a sign of breast cancer even if no lump is felt.

Skin dimpling: The dimpling that may be symptomatic of breast cancer can look like the exterior of an

Pain: Some women experience pain in the breast or nipple before a breast cancer diagnosis.

orange peel.

Nipple retraction:

This symptom is marked by the nipple turning inward.

Skin issues on the nipple or breast:

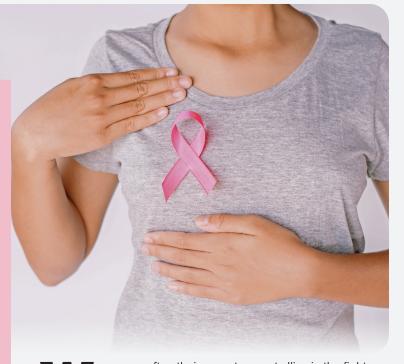
Skin on the nipple or breast may redden, dry, flake, or thicken when a woman has breast cancer.

Nipple discharge:

The discharge will be something other than breast milk.

Swollen lymph nodes under the arm or near the collar

bone: This swelling may indicate the breast cancer has spread even before the original tumor in the breast reached a size large enough to be felt.



omen are often their own strongest allies in the fight against breast cancer. While a strong support network can be vital when receiving treatment for breast cancer, women who have not been diagnosed with the disease still have an important role to play in combatting it and potentially reducing its impact on their lives.

The World Cancer Research Fund reports that breast cancer is the second most common cancer worldwide and the number one cancer in women across the globe. But women are not helpless against breast cancer. In fact, various organizations encourage women to take a proactive approach in relation to the disease and begin conducting routine self-examinations in young adulthood. Self-exams can uncover signs of the disease and propel treatment when it's in its earliest stages, a point in time when breast cancer is most treatable. Though the disease does not always produce symptoms in its early stages, women can keep an eye out for these signs each day, including when conducting self-exams.

• New lump or mass: This is perhaps the most widely known symptom of breast cancer, but it's important that women avoid jumping to conclusions should they uncover a new lump or mass during a self-exam. That's because most breast lumps are not cancer according to the American Cancer Society. The ACS notes a painless, hard mass with irregular edges is more likely to be cancer but also acknowledges cancer-related lumps or masses can be soft, round, tender, or painful.

The ACS urges women who discover any of these symptoms to report them to a health care professional immediately. Though each symptom is not necessarily indicative of the presence of breast cancer, it's still important to seek treatment.

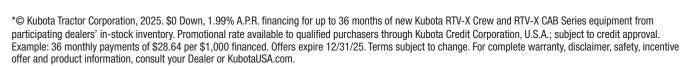


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reast cancer is a formidable disease that affects millions of individuals each year. Data fromm the World Health Organization indicates 2.3 million women were diagnosed with breast cancer in 2022, when it was the most common form of the disease in 157 of 185 countries across the globe.

The impact of breast cancer goes beyond those diagnosed with the disease, affecting friends, family members, professional colleagues, and others as well. That far-reaching impact means everyone has a vested interest in learning about breast cancer.

WHAT IS BREAST CANCER?

The Centers for Disease Control and Prevention notes breast cancer occurs when cells in the breast grow out of control. The breast is made up of three main parts known as the lobules, ducts and connective tissue, and which type of breast cancer a person has depends on which cells in the breast turn into cancer.

IS THERE A TYPICAL BREAST CANCER?

No two individuals diagnosed with breast cancer will have the same experience after being diagnosed. However, the CDC notes that most breast cancers begin in the ducts or lobules. The ducts are tubes that carry milk to the nipple and the lobules are the glands that produce milk.

WHAT ARE SOME COMMON RISK FACTORS FOR BREAST CANCER?

The National Breast Cancer

Foundation, Inc. notes gender is the foremost risk factor for breast cancer, as the WHO reports that 99 percent of breast cancers occur in women. Additional risk factors for breast cancer include age, with two out of three women diagnosed with invasive breast cancer being older than 55, and race, as the disease affects more Caucasian women than women of other races. The NBCF also notes that women who have dense breast tissue may be at greater risk for breast cancer because such tissue can make it harder to detect lumps.

WHAT CAUSES BREAST CANCER?

The NBCF notes that most women who have breast cancer will never be able to identify an exact cause behind their disease. Common risk factors like gender and age are beyond women's control, but there are some controllable risk factors

that can be avoided. The WHO notes that overconsumption of alcohol and tobacco use are two such factors.

HOW IMPORTANT IS EARLY DETECTION?

The American Cancer Society reports that the five-year survival rate for breast cancers discovered in the localized stage is 99 percent. That underscores the significance of early detection. The NBCF notes monthly breast self-exams and routine clinical exams increase the likelihood of early detection. Women are urged to speak with their physicians regarding how frequently they should be tested, as recommendations vary depending on each individual and their respective family histories.

The basics of breast cancer provide insight into the disease and what women can do to reduce their risk of developing it.

>>> Breast cancer terms to know

recent analysis from the Agency for Research on Cancer and collaborators estimated that 3.2 million new cases of breast cancer will be diagnosed annually across the globe by 2050. That would mark a significant increase in annual cases since 2022, when the World Health Organization reported 2.3 million individuals were diagnosed with breast cancer.

Though breast cancer affects millions of women and their support networks each year, it's not always so easy to understand all of the terminology surrounding the disease. With that in mind, people recently diagnosed with the disease or those who know someone in such a position can learn these common terms to make their journey to recovery a little easier to navigate.

Ductal carcinoma in situ (DCIS): Many terms related to breast cancer can be scary, but DCIS is among the more welcoming words a doctor may utter. DCIS is a non-invasive form of breast cancer that doctors may characterize as "stage 0." Breast cancers identified as DCIS are very early stage and highly treatable.

Invasive ductal carcinoma (IDC): Susan

G. Komen*, an organization dedicated to raising breast cancer awareness, notes that IDC is a form of the disease that begins in the milk ducts but has spread into surrounding breast tissue and possibly into the lymph nodes or other parts of the body.

Lumpectomy: According to Susan G. Komen[®], a lumpectomy is a surgical procedure that removes only the tumor and a small amount of tissue around it. Most of the breast skin and tissue is left in place during a lumpectomy.

Mastectomy: A mastectomy is a surgical removal of the breast. Susan G. Komen* notes there are different types of mastectomy. A modified radical mastectomy removes the breast, the lining of the chest muscles and some of the lymph nodes in the underarm area.



This procedure is used to treat early and local advanced breast cancer. A total mastectomy involves surgical removal of the breast but no other tissue or nodes.

Hormone receptor status: Hormone receptor status indicates whether or not a breast cancer requires hormones to grow. Susan G. Komen® notes a significant number of hormone receptors on a breast cancer cell indicate it needs the hormone to grow.

Family history: Family history refers to current and past health conditions of a given individual's biological family members.

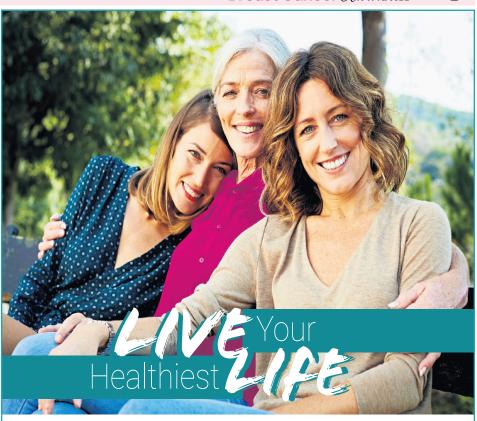
Family history of breast cancer is considered a risk factor for the disease.

Ki-67 Rate: Susan G. Komen® notes this is a common way to measure proliferation rate. The more cells the Ki-67 antibody attaches to in

a given tissue sample, the more likely the tumor cells will grow and divide rapidly.

Local treatment: This refers to treatment that focuses on removing cancer from areas local to the breast, including the breast itself as well as the chest wall and lymph nodes in the underarm area.

These are just a handful of terms that women diagnosed with breast cancer and their family members can learn to better understand the disease and the various ways it's treated. Additional terminology can be found at komen.org.



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How dense breasts can affect breast cancer diagnosis

creening is widely recommended to adult women as a way to identify the presence of breast cancer in its earliest, most treatable stages. But breast density might complicate the screening process for some women and even confuse those unfamiliar with dense breast tissue.

Explaining breast density

The American Cancer Society reports that breast density is a measure of how much fibroglandular tissue there is in a breast compared to fat tissue. Lobules, which are small glands that produce milk, and ducts, which are tiny tubes that carry the milk from the lobules to the nipple, are considered glandular tissue. Fibrous tissue and fat give breasts their shape and size while holding other structures in place.

Both fibrous and glandular tissue are difficult to see through on a breast cancer screening test known as a mammogram, which is an X-ray of the breast. Mammograms are recommended to women beginning in young adulthood because they can detect the presence of tumors in some women that might otherwise be undetectable until they grow larger and produce noticeable physical symptoms. But some women have more fibrous and glandular tissue than others. In such instances, women may be told they have dense breast tissue.

How do doctors know if I have dense breast tissue?

The ACS notes that radiologists read mammograms and other imaging tests and are typically the ones who identify if a woman has dense breast tissue after examining the images produced by the tests. It's now law in the United States to identify if a woman has "dense" or "not dense" in a mammogram report.

Is dense breast tissue a risk



factor for breast cancer?

Yes. The ACS notes doctors are still unsure why, but women who have dense breast tissue are at greater risk of breast cancer than women with less dense tissue.

Are mammograms still necessary if I'm identified as having dense breast tissue?

The ACS advises women to get a mammogram even if they have dense breast tissue. That's because many breast cancers are still detectable even in women with dense breasts. Additional screenings for breast cancer, including 3D mammography and breast ultrasounds, remain a point of contention within the medical community in regard to screening for breast cancer in women with dense breasts. Women are urged to speak with their physicians about the need for additional screenings and their options.

Sharing your history

It's not uncommon for adults to change physicians. In such cases, it's important that women share everything they know about their breast cancer risk, including information regarding their breast density, with any new doctor they visit.

Breast density can affect breast cancer diagnosis. But women identified as having dense breasts should still include traditional screenings like mammograms in their health care routines.

The different typesof mammograms

remain the most effective method for diagnosing breast cancer and catching the disease in its earliest, most treatable stages. While various health organizations recommend different screening intervals, the American Cancer Society advises annual mammograms for women ages 40 to 54. Women age 55 and older who adhere to ACS recommendations can switch to a mammogram every two years if in good health.

ammograms

Mammograms employ low-dose X-rays to map out breasts and detect unusual growths. There are two main types of mammogram: screening and diagnostic.

Screening mammogram

The Breast Cancer Research Foundation says a screening mammogram detects changes in breast tissue that could be indicative of breast cancer in women who exhibit no other symptoms of the disease. Mammograms sometimes can detect breast cancer up to three years before a person or doctors feel a lump. During the test, the breasts are flattened between two imaging plates from a few angles to get the X-rays.

Diagnostic mammogram

Should a screening mammogram show something amiss or not



easily visible the first time around, radiologists may ask the person to come back for additional image testing. This diagnostic mammogram includes additional views. The National Breast Cancer Foundation says diagnostic mammograms take detailed X-rays of the breast using specialized techniques. They also may involve additional views or adjunct testing like ultrasound or MRI to provide a better overall picture of breast health. Diagnostic mammograms may be used to zero in on a specific area of the breast that needs further clarification.

Because a diagnostic mammogram requires taking a greater number of images, it will expose a patient to a higher dose of radiation. Still, health professionals feel the risk is worth it to help rule out cancer. Also, unlike a screening mammogram that may take several days for a radiologist to read and identify results, a diagnostic mammogram can reveal important information immediately.

Screening and diagnostic mammograms are important tools used to check for breast cancer.

The latest breast cancer screening recommendations



ealth care screenings save untold numbers of lives each year. Screenings can uncover potentially life-threatening issues in their infancy. Such is often the case with cancer screenings, which are recommended to adults from all walks of life in an effort to detect the presence of the disease in its earliest, most treatable stages.

Screening can detect various forms of cancer, including breast cancer. Breast cancer screening guidelines are fluid as researchers and other health care professionals learn more about the disease. The following guidelines reflect recommendations from the United

States Preventive Services Task Force (USPSTF) in 2024.

- Women are now advised to start regular mammograms at age 40. Prior to these updated USPSTF recommendations, women had been advised to start regular mammograms at age 50. But the Breast Cancer Research Foundation notes these new USPSTF guidelines now align with recommendations from other organizations.
- Screening mammograms should be scheduled every other year between the ages of 40 and 74. This timeline

does not align with other organizations, many of which urge women to get annual mammograms. Women can discuss mammogram frequency with their physicians.

- The USPSTF cited a need for more research into the benefits of breast ultrasound and MRI for women with dense breasts. Women identified as having dense breasts can open a dialogue with their physicians about breast cancer screenings and request updates on the latest opinions surrounding breast ultrasounds and MRIs.
- The USPSTF acknowledged it was unable to make specific recommendations regarding breast cancer screenings for women 75 and older, citing a lack of sufficient studies on which to base recommendations to women in this age group.

It's important to note that USPSTF recommendations are fluid and can change. Women are urged to take USPSTF recommendations and advice from other organizations into consideration and work in concert with their health care team to identify the best screening strategy for them. More information about breast cancer screening is available at bcrf.org and uspreventiveservicestaskforce.org.



hanks to early detection and improved therapies, many cases of breast cancer are successfully treated. However, the Susan G. Komen® organization reports breast cancer survival rates vary depending on the stage of the disease at the time of diagnosis. Those diagnosed as having stages 0, I and II tend to have better survival rates than those whose disease was discovered after the cancer had already advanced to stages III and IV. Although each situation is unique, the five-year survival rate among those diagnosed with breast cancer stage I or lower is between 98 and 100 percent. Stage II falls between 90 and 99 percent. The five-year survival rate for stage III patients is between 66 and 98 percent. While the organization does not provide survival data for stage IV, according to the National Cancer Institute's Surveillance, Epidemiology, and End Results (SEER), the five-year relative breast cancer survival rates for women with a SEER stage of Distant (the cancer cells have spread to other parts of the body) is 33 percent. If cancer cells have only spread beyond the breast but it is limited to nearby lymph nodes (Regional), the survival rate is 87 percent.



Explaining metastatic breast cancer

reast cancer remains a formidable foe, but the tireless efforts of researchers and organizations that raise awareness of the disease have helped improve the prognosis for millions of women across the globe. Thanks to those efforts, the American Cancer Society can report the five-year survival rate for localized breast cancers is now greater than 99 percent.

While the vast majority of women with breast cancer are diagnosed when the disease is in its earliest and most treatable stages, some develop metastatic breast cancer, which is an advanced form of the disease.

What is metastatic breast cancer?

The National Breast Cancer Foundation, Inc. notes that "metastatic" is a medical term used to define the process by which cancer cells spread to other parts of the body. Metastatic breast cancer occurs when breast cancer cells spread to other parts of the body beyond the breast and nearby lymph nodes.

Which stage is metastatic breast cancer?

Metastatic breast cancer can indicate recurrence, and women confronting such situations may recall that staging is an important part of confronting the disease. The ACS notes that staging helps doctors identify if the cancer has spread and, if so, how far. The earliest stage breast cancer is stage 0, and the most advanced stage is stage IV. Metastatic breast cancer is considered to be stage IV.

Is there a cure for metastatic breast cancer?

The organization Susan G. Komen*, which advocates for women with breast cancer and supports research into the disease while aiming to raise awareness of it, notes that there currently is no cure for metastatic breast cancer. Treatment for metastatic breast cancer aims to extend life and help women to maintain

their quality of life. And while there may be no

cure for metastatic breast cancer, Susan G. Komen® notes ongoing clinical trials may provide women with an opportunity to try new treatments. In addition, various studies are currently being conducted in the hopes of improving treatment.

What are the symptoms of metastatic breast cancer?

The NBCF notes that the symptoms of metastatic breast cancer can vary depending on how far the cancer has spread and where in the body it has progressed to. But the experts at Johns Hopkins note women who previously have been treated for breast cancer can keep an eye out for these symptoms that suggest the disease has spread.

- Unusual or persistent back or neck pain that cannot be explained by an injury or exercise
- Pain in the bones
- Unexplained shortness of breath
- Profound fatigue or malaise
- Headache
- Seizures
- Mood changes
- Difficulty with speech
- Changes with vision

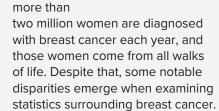
What is life like after a metastatic breast cancer diagnosis?

No two women are the same, so each experience with metastatic breast cancer will be different. However, Susan G. Komen® notes that managing side effects, including controlling pain, is an area of focus when living with metastatic breast cancer. Supportive care aimed at improving quality of life, including tending to the physical, emotional, social, and spiritual needs of a person diagnosed with metastatic breast cancer, also is part of life after a diagnosis.

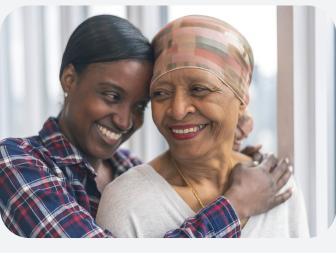
Knowledge of metastatic breast cancer can help women and their loved ones navigate the disease more effectively in the event of a diagnosis.

Olatable disparities in incidence rates related to breast cancer

woman is immune to breast cancer, a fact of life that's reflected when examining the global impact of the disease. According to the World Health Organization,



According to the American Cancer Society's "Breast Cancer Facts & Figures 2024-2025" report, Black women have a 5 percent lower breast cancer incidence rate than white women. However, the breast cancer mortality rate among Black women is 38 percent higher than it is for white women. The ACS indicates that disparity in mortality rate is because Black women tend to be diagnosed with breast cancer later in life than white women, giving the disease time to grow and spread and thus making it more difficult to treat. The ACS also notes Black women generally have less access to high-quality treatment than white women, a reality that undoubtedly leads to later diagnosis of the



disease.

The disparity in mortality rate also is evident when comparing American Indian/Alaska Native women to white women. The ACS report notes that the former group has a 10 percent lower breast cancer incidence rate than the latter, but American Indian/Alaska Native women have a 6 percent higher breast cancer mortality rate than white women. In addition, the ACS reports breast cancer mortality has declined in every racial and ethnic group since 1990 except for American Indian/Alaska Native women, for whom the mortality rate has remained stable.

In light of these disparities, the ACS advocates for improvements in health equity access so women from all walks of life recognize the significance of screening for breast cancer and have routine and readily available and affordable access to potentially lifesaving screening procedures and medical facilities.

How to support a loved one with breast cancer

omeone is diagnosed with breast cancer every day. The World Health Organization says breast cancer is the most commonly diagnosed cancer among women around the world, as well as a leading cause of cancer death. Unfortunately, roughly half of all breast cancers occur in women with no specific identifiable risk factors beyond age and sex, so there may be no warning signs that a cancer diagnosis is coming.

Chances are a newly diagnosed breast cancer patient will need some measure of help and support but may not feel comfortable asking for assistance. Getting help also can be overwhelming for certain individuals. But supportive friends or loved ones can step up to the plate and offer support in various ways.

- **Provide meals.** Take turns with other friends and family members to prepare and deliver meals. If you don't cook, arrange to have takeout delivered.
- Go grocery shopping. Help stock the refrigerator with plenty of healthy and convenient foods. While the person battling cancer may experience various degrees of hunger, keeping food available helps other members of the household.
- Straighten up. Take care of cleaning around the house. You may wash some loads of laundry, vacuum and iron clothes. If budget allows, you can hire a cleaning service to come in once or twice a month for a deep cleaning.
- Care for the dog. If fatigue makes it challenging for the person battling cancer to take the dog on walks, you can step up and handle dog walking or trips to a dog park.
- Provide caregivers a break. The primary caregiver will be working overtime to offer support, and you can give that person a much-needed break. Step in to go to doctors' appointments



or watch a young child so the caregiver gets a day or two off.

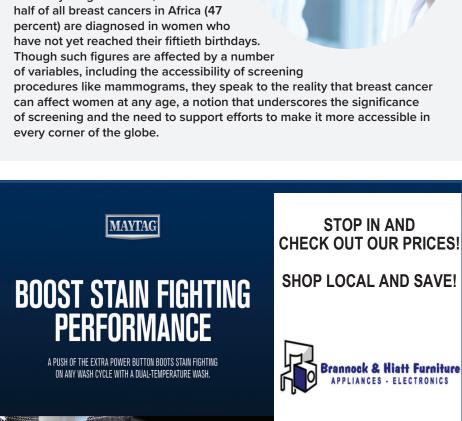
- Take on chauffeur duty. Take on the task of driving the patient to and from checkups or scans. A friendly face can make a big difference in taming anxiety.
- Pay bills. Household tasks may seem overwhelming, so you can help manage the finances by paying bills or sorting through mail. If medical paperwork has begun to stack up, you also can organize and sort items of importance.
- Make home more comfortable.

 Transform any living spaces, whether they are home or temporary apartments or hotels, with creature comforts.

 This can include high thread count sheets, newly framed family photos, comfortable pillows and blankets, and more.
- Sit and listen. Sometimes the greatest comfort can be sitting with and listening to the person who is fighting cancer. Don't offer advice or recommendations unless prompted, but listen to any concerns and offer time and support.

Support for friends and loved ones after a cancer diagnosis can come in many forms and make a significant difference in people's lives. 2024 report from the International Agency for Research on Cancer indicated 71 percent of new cases of

breast cancer across the globe were diagnosed in individuals age 50 and older. Though age is a known risk factor for various types of cancer, it's important that women recognize a significant percentage of breast cancer diagnoses in many parts of the world are made in women younger than 50. For example, nearly one in five of breast cancer diagnoses in both North America (18 percent) and Europe (19 percent) are made in women younger than 50, while almost half of all breast cancers in Africa (47 percent) are diagnosed in women who have not yet reached their fiftieth birthough



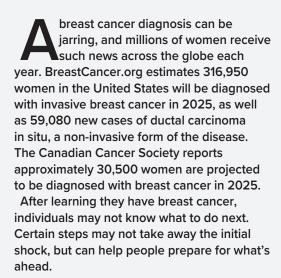
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The next steps

after a breast cancer diagnosis



Gather information

The first step is to learn more about your diagnosis. This should include details about the type, stage and hormone receptor status of the breast cancer from your doctor. Now is the time to ask the doctor to clarify anything you do not understand. He or she also may begin to spell out a treatment plan.

Unless the cancer is very aggressive, you likely have time to seek a second opinion. Another specialist can confirm the diagnosis and offer a second opinion about a potential treatment plan. After all expert opinions are gathered, you also may want to learn more through reputable sources like the Mayo Clinic or the American Cancer Society before making any treatment decisions.

Share the news

Some people want to keep their cancer diagnosis a secret, but it can be helpful to let loved ones know early on. This will help you build a strong support system that can offer emotional support and additional assistance when needed. Treatment may leave you

feeling weakened and ill, and you might need some helpers to lighten your load. A counselor or therapist also can help you navigate the emotions of a breast cancer diagnosis.

Accept help

It can be difficult for those who are independent to admit they need assistance. You can take the reins by making a list of tasks or responsibilities that you may need help with. This way when people ask what they can do, you'll have answers at the ready. Ideas include help with meal preparation, childcare, errands, transportation, or keeping you company during treatments.

Prioritize self-care

Breast cancer can take a lot out of a person. Trying to maintain some sense of normalcy can help. Consider gentle exercise, relaxation techniques and activities that bring a smile to your face. Remember to choose healthy foods and find ways to manage stress as much as possible. Be patient with yourself, as it can take time to adapt to a diagnosis and treatment.

Speak with your employer

Breast cancer can affect your ability to work. There likely will be appointments with doctors and consultations with your care team. Looping your employer in is a smart idea. Many supervisors will be supportive of your needs. You also may want to speak with human resources about any services that could be available to you, or how you can allocate personal time off for your treatment and care.

A breast cancer diagnosis can catch anyone off guard. Taking each step slowly and learning more can make the weeks ahead a little less apprehensive.

Hormone therapy for breast cancer treatment

breast cancer diagnosis is unwelcome news. but thanks to the tireless efforts of researchers and support from individuals and advocacy organizations, the overall five-year survival rate for breast cancer is now around 90 percent. That means 90 out of 100 people with breast cancer are still alive five years after diagnosis, according to the American Cancer Society.

Cancer stage at diagnosis and the patient's overall health play important roles in beating the disease, as does the type of treatment available. There are many different types of breast cancer treatments, and hormone therapy may be recommended.

The Cleveland Clinic advises that hormone therapy can be used to treat hormone receptor-positive (HR+) breast cancer, including the most common type of breast cancer: estrogen receptor-positive (ER+) breast cancer. Estrogen is one of the two hormones (along with progesterone) that is produced in the ovaries for much of a woman's life. After menopause, estrogen levels drop and estrogen is made in body fat and muscle, notes the organization Cancer Research UK. Estrogen and progesterone may stimulate the growth of some breast cancer cells.

Hormone receptor status in breast cancer is determined by testing the tumor tissue during a biopsy or surgery for the presence of estrogen and progesterone receptors. The technique is known as immunohistochemistry. Penn Medicine reports that if at least 1 percent of the tested cells show these receptors, the cancer is hormone-positive. If the cancer is sensitive to progesterone, it is known as PR+. HR+ and PR+ should not be mistaken for Human **Epidermal Growth Factor** Receptor 2 (HER2) cancers, as HER2 cancers involve a protein that regulates cell growth rather than hormones influencing the cancer cells.

Hormone therapy may be used for certain reasons, according to the Mayo Clinic. It can reduce the size of a cancer prior to surgery. It also may slow or stop the growth of cancer that has spread (metastatic cancer). Hormone therapy also may decrease the risk of cancer developing in other breast tissue. Sometimes doctors use hormone therapy after surgery to reduce the risk of recurrence.

Hormone therapy for breast cancer may include aromatase inhibitors, selective estrogen receptor modulators or estrogen receptor down regulators. Side effects from these therapies can include fatigue, mood swings, nausea and vomiting, tender or swollen breasts, loss of interest in sex, hot flashes, and joint and muscle pain or stiffness, according to the Cleveland Clinic. Together patients and doctors can go over the risk and benefits of hormone therapy to discuss what is right for the cancer and the prognosis after treatment.

Treatment options for breast cancer

reast cancer is marked by the formation of malignant cells in the various tissues of the breast. Family history and other factors like age increase a person's risk for breast cancer. According to the National Cancer Institute, the most common type of breast cancer is ductal carcinoma, which begins in the cells of the ducts and accounts for roughly 70 to 80 percent of all breast cancer cases. Ten to 15 percent of all breast cancer cases are lobular carcinoma, which begins in the lobes or lobules.

After a person is diagnosed with breast cancer, a cancer care team will begin to discuss treatment options. It's important to weigh all options carefully. By understanding breast cancer treatments beforehand, individuals can make more informed decisions should they need to. The following are some treatment options for breast cancer.

- Surgery: Breast cancer surgery typically involves a process to remove the cancer. A lumpectomy is a surgery that removes the tumor and some healthy tissues around it. This usually is reserved for a small cancer. Others may have a mastectomy to remove all of the breast tissue, including lobules, ducts, fatty tissue and some skin. A sentinel node biopsy may be needed to see if the cancer has spread to nearby lymph nodes. In some cases, removing several lymph nodes is necessary if the cancer has spread.
- Radiation: Radiation treatment employ high-energy rays or particles to destroy cancer cells. Radiation can be used to help lower the chances that the cancer will come back after breast-conserving surgery. It also can be used if cancer has spread to other parts of the body. The American Cancer Society says external beam radiation therapy is the most common type of

radiation therapy for women with breast cancer.

Chemotherapy: Chemotherapy involves anticancer drugs that may be injected or administered

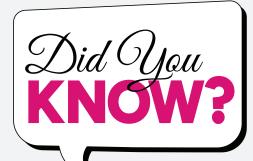


orally. The drugs travel throughout the bloodstream to reach cancer cells in most parts of the body. Chemotherapy may be given before surgery to shrink a tumor or afterwards to kill any cancer cells left behind or ones that may have spread. Since chemotherapys is systemic, it can affect all areas of the body and may result in various side effects, according to the NCI.

- Hormone therapy: Hormone therapy may be recommended for postmenopausal women who have been diagnosed with metastatic breast cancer that is hormone receptor positive or if the hormone receptor status is unknown. As the medications block certain hormones that some breast cancers are sensitive to, the cancer growth is stunted. Blocking the hormones also can cause the cancer cells to die, says the Mayo Clinic.
- Targeted therapy: Targeted therapy utilizes medicines that attack specific chemicals in cancer cells. By blocking these chemicals, the treatment can cause cancer cells to die. The ACS says 15 to 20 percent of breast cancers make too much of a protein known as HER2. The most common targeted therapy medicines target HER2.
- Immunotherapy: Immunotherapy boosts a person's own immune system with certain medications to recognize and destroy cancer cells.

A cancer care team may use any combination of breast cancer therapies to stall the growth of the cancer and stop it from coming back.

Targeted cancer therapy

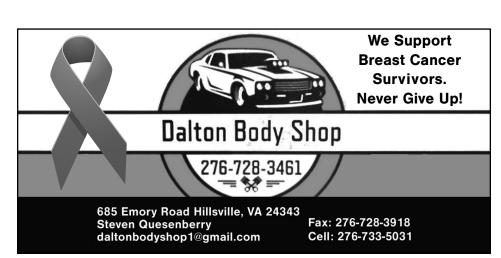


ndividuals have various options to consider when seeking treatment for cancer.

Radiation, surgery and chemotherapy are some of the better known treatments, but individuals may want to consider an option known as targeted therapy. Targeted therapy is a type of cancer treatment that targets proteins that control how cancer



cells grow, divide and spread, advises the National Cancer Institute. It is a precision and personalized medicine that addresses specific features, changes, mutations, or substances on cancer cells. The American Cancer Society says there are many kinds of targeted therapies, each of which is designed to stop cancer cells from growing and spreading while limiting damage to normal, healthy cells. Targeted therapies are not yet available for all types of cancer, but they can be used to treat breast cancer. The ACS says targeted therapy has different side effects than standard or traditional chemotherapy. Some produce very few side effects, while others cause more serious problems. It is wise for patients to learn more about targeted therapies and talk about the pros and cons with their cancer care team.





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