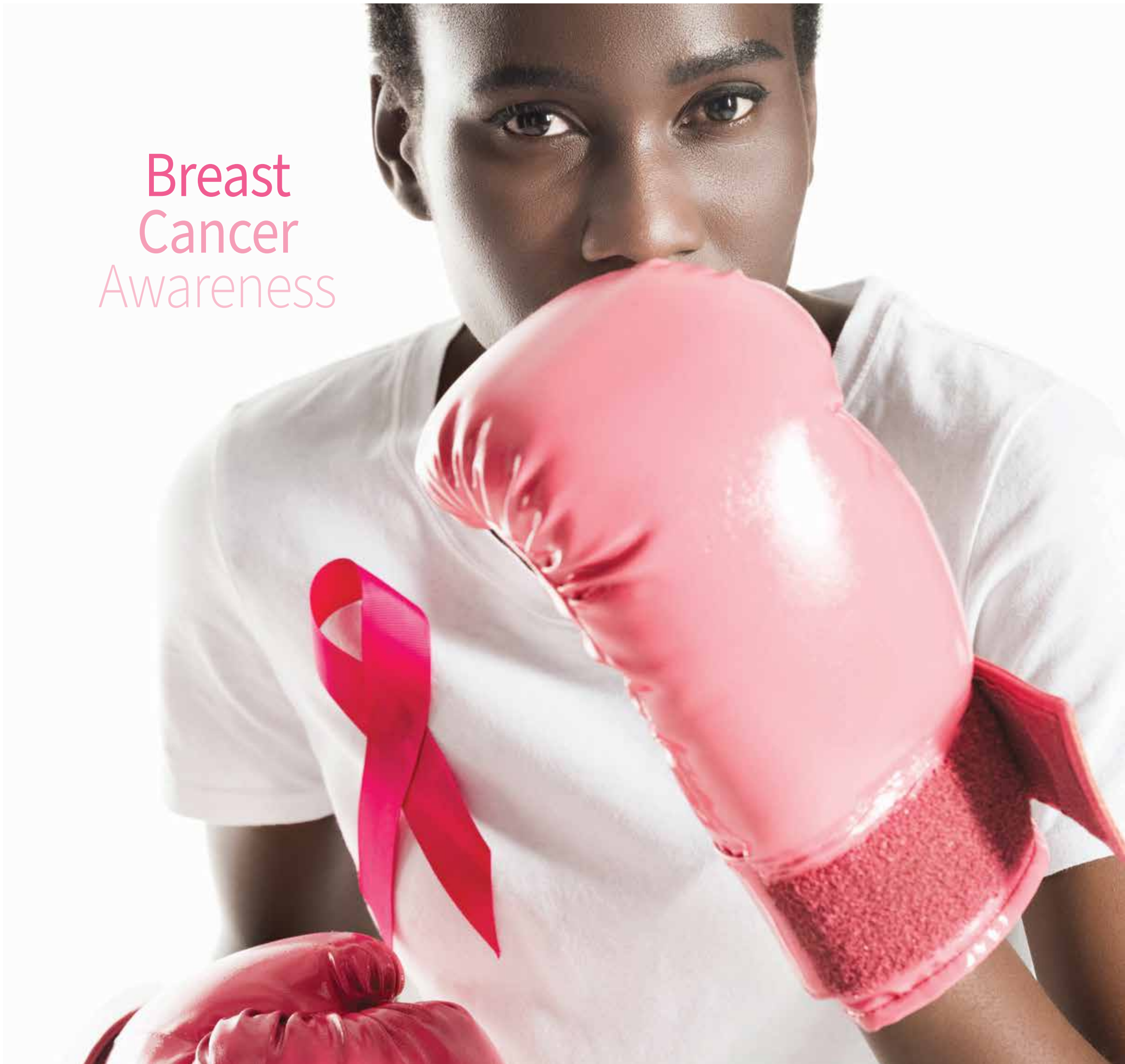


Breast
Cancer
Awareness



Get the Most from a Mammogram

Mammograms are a key tool in the detection of breast cancer.

You can make your mammogram more effective, comfortable and easy. The American Cancer Society offers extensive guidance on ways to do this. They also assure you that a mammogram is nothing to be afraid of. Only two to four screening mammograms in 1,000 lead to a diagnosis of breast cancer.

The following is what the American Cancer Society recommends.

PREPARING FOR A MAMMOGRAM

Whenever possible, pick a facility that specializes in mammograms. Go to the same one every year. This will let your results be easily compared from year to year. The first time you go to a facility, bring a list of the places and dates of mammograms, biopsies or other breast procedures you've done before. Have your previous mammograms sent to the new facility or bring them with you.

When scheduling, avoid the week just before your period. Schedule an appointment when your breasts aren't likely to be tender or swollen, both for your comfort and so the technicians can get better pictures.

Do not apply deodorant, antiperspirant, powders, lotions, creams or perfumes under your arms or on or under your breasts. These can sometimes



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show up on the X-ray as white spots. It's why many facilities will provide you with wipes to clean off your underarms and breasts. Take any supplies with you to reapply after your exam.

Consider wearing a skirt or pants rather than a dress so that you'll have to remove only your top and bra.

Let your health care provider know if you've had any recent changes or problems with your breast before you get a mammogram. It could affect the type of mammogram you receive. When you have symp-

toms, they can do a diagnostic mammogram and take special images of the area of concern. You should also tell your provider about anything that could affect your breast cancer risk, such as surgery, family history, hormone use or prior breast cancer.

DURING THE EXAM

There are several things your technologist needs to know. Share with them any breast changes or problems you are having. Let them know if you have breast implants, have

trouble standing or holding still alone without the help of a cane or walker, whether you are breastfeeding or if you think you might be pregnant.

If at any point during the exam you start to feel lightheaded or dizzy, tell the technologist right away.

Before your exam, you'll have to undress above the waist. You'll be given a gown to wear. You and the technologist will be the only ones in the room.

To get the best quality picture, your breast will have to be

flattened or compressed. The technologist will place your breast on the machine and instruct you on how and where to stand. They may have to make some adjustments to accommodate your height and shape. The technologist will lower the plastic upper plate to compress your breast while they take an X-ray. You will then need to change position so your breast is compressed from side to side. This will be repeated for both breasts.

If you are getting a 3D mammogram, the machine will move in a small arc while the image is being taken. You might be asked to hold your breath while it is being done.

Generally speaking, a mammogram takes about 20 minutes with the breast compression usually lasting only 10 to 15 seconds per image. Women with larger breasts or who have breast implants may need to have more pictures taken, which will lengthen the process.

Some women feel nothing during a mammogram while others feel discomfort or even pain. Let the technologist know if it hurts and they may be able to make adjustments so you are more comfortable.

Diagnostic mammograms are very similar to screening ones except that more pictures are taken with a focus on the area of concern. Typically, a radiologist will check the images while you are there so that more pictures can be taken if needed. Sometimes you might be taken in immediately for an ultrasound.

Men Are Also at Risk

While breast cancer in men is more rare than in women, it does exist.

The Centers for Disease Control reports that one in every 100 cases of breast cancer are diagnosed in men. It's why it is important for men as well as women to screen for breast cancer. Breastcancer.org said that, in 2022, about 2,710 men were expected to be diagnosed with breast cancer in the U.S. and about 530 men were expected to die from it.

While the risk of a man being diagnosed with breast cancer is only about one in 1,000 compared to a woman's one in eight, the breast cancer is often at more advanced stages when it is diagnosed because men do not have the same routine screenings that women do.

CAUSES

The exact causes of male breast cancer are not fully understood. There are some factors that make a man more at risk for breast cancer than otherwise. First, the risk of male breast cancer increases with age. Most cases occur in men over the age of 60.

Having a close relative with a history of breast cancer may increase the risk. Inherited gene mutations, such as BRCA2, can also contribute to male breast cancer.

Men with Klinefelter syndrome, a genetic condition characterized by the presence



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of an extra X chromosome, have an increased risk of developing breast cancer. Men who have had estrogen treatments, such as those used to treat prostate cancer in the past, also have a higher risk.

Exposure to radiation, particularly in the chest area, may increase the risk of male breast cancer.

Certain liver conditions, such as cirrhosis, can disrupt hormone metabolism and increase the risk of breast cancer. Likewise, injury to, swelling in or surgery to remove testicles can increase the risk.

SYMPTOMS

Symptoms of male breast cancer may include a painless

lump or thickening in the breast tissue, changes in breast size or shape, nipple discharge or changes in the skin over the breast.

Many of these symptoms can be related to benign conditions but they should always be checked out by a health care professional when they appear.

TREATMENT OPTIONS

Most cancers are treated with a combination of treatments. Surgery to remove the tumor is the most common. It can involve the removal of the entire breast or removal of just the tumor and surrounding tissue. After surgery, doctors may recommend radiation therapy to target any remaining cancer cells.

Chemotherapy may be prescribed to destroy cancer cells or reduce the risk of metastasis.

Since male breast cancer is often hormone receptor-positive, hormone therapy can be an effective treatment option. It may involve the use of medications, such as tamoxifen, to block the effects of estrogen on breast tissue.

In some cases, targeted therapies that specifically target cancer cells are used. These therapies are tailored to the specific characteristics of the tumor.

EARLY DETECTION

Early detection plays a critical role in improving outcomes for male breast cancer. Because so much of the public messaging around breast cancer is targeted at women with "pink" campaigns, many men are unaware that they are at risk for breast cancer and may delay seeking medical attention.

Men should conduct regular breast self-exams and promptly report any changes or symptoms to a health care professional.

Treatment During Pregnancy

Receiving a breast cancer diagnosis can be a devastating experience, and when it occurs during pregnancy, it introduces unique challenges.

Balancing the health and well-being of both the mother and the unborn child becomes a primary concern.

The American Cancer Society says that breast cancer is found in about one in every 3,000 pregnant women, a condition called gestational breast cancer or pregnancy-associated breast cancer.

They warn that it is more difficult to diagnose breast cancer during pregnancy because it is normal for the breasts to undergo changes during pregnancy. This often means that a lump isn't detected until it gets quite large. Also, many women delay mammograms and those who do often have denser breasts due to pregnancy or breastfeeding, which makes it more difficult for the mammogram to detect lumps.

SCREENING WHILE PREGNANT

The American Cancer Society said it is generally considered safe to have mammograms while pregnant because of the very small amount of radiation needed and it is focused on the breast. A lead shield can be placed over the belly to protect it further.

Ultrasounds are considered safe and are usually the first test used during pregnancy to detect breast cancer. Such tests as PET scans, bone scans and computed tomography scans are more dangerous during pregnancy and should be avoided.

While MRIs don't use radiation, they do use a contrast material that is inject-



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ed into the blood and can cross the placenta. It has been associated with fetal abnormalities in lab animals so doctors recommend against it.

Core needle biopsies use only local numbing medicine and are considered safe for pregnant women and their fetuses. Surgical biopsies carry a small risk to fetuses because they require the mother to take general anesthesia.

CARE AND CONSULTATION

The first step after being diagnosed with breast cancer during pregnancy is to seek specialized medical care. It will be necessary to have a multidisciplinary team consisting of breast cancer specialists, obstetricians and maternal-fetal medicine specialists. These experts will develop a comprehensive treatment plan that considers the unique needs and risks associated with

both breast cancer and pregnancy.

Doctors will consider several factors when determining a treatment plan, including the stage and type of breast cancer, the gestational age of the pregnancy and the mother's overall health. Treatment options may include surgery, chemotherapy, radiation therapy or a combination of these approaches. However, the timing and extent of treatment will depend on individual circumstances.

Surgery is generally considered safe, according to the American Cancer Society, and chemotherapy can be used in the second and third trimesters, but not the first trimester. Other breast cancer treatments, such as hormone therapy, targeted therapy and radiation therapy, are usually avoided as they are more likely to cause harm to the baby. Breast cancer has never been known to

spread from the mother to the fetus.

SUPPORTIVE CARE

A breast cancer diagnosis during pregnancy can evoke intense emotional distress. It is important for the patient to seek emotional support and establish a strong network of care.

Supportive care may include individual or group counseling, joining support groups specific to pregnant women with breast cancer and involving loved ones who can provide emotional support through the journey.

Reaching out to family, friends and support organizations that specialize in helping people with breast cancer during pregnancy can provide emotional support, a chance to share personal experiences and access to valuable guidance on managing this dual diagnosis.

Breast Reconstruction

Undergoing a mastectomy, whether due to breast cancer or preventive measures, can be a life-altering experience for a person.

However, thanks to advancements in medical technology, breast reconstruction options are available to help restore both physical appearance and emotional well-being. There are several options for breast reconstruction and learning about them can empower you to make informed decisions about your post-surgery journey.

Insurance should pay for the reconstruction surgery as federal law requires most plans to cover the costs. Sometimes reconstruction surgery involves both breasts, even if only one is having a mastectomy. This is especially the case for people with large breasts who may need one reduced to match the other.

IMPLANT-BASED RECONSTRUCTION

One popular option for breast reconstruction is implant-based reconstruction. This procedure involves the use of silicone or saline implants to recreate the shape and size of the breast. The implants can be inserted either during the mastectomy surgery or in a subsequent procedure.

Implant-based reconstruction offers a relatively shorter recovery period and allows for customization of breast size and shape. It is common to lose sensation in the breast after this surgery.

The City of Hope Cancer Center said it is not recommended for those who will have radiation as part of their post-surgery treatment. They also said that silicone gel is used



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much more often than saline implants because the newer generation of those implants offer a more natural look and feel.

AUTOLOGOUS TISSUE RECONSTRUCTION

The other common option is autologous tissue reconstruction, also known as “flap” reconstruction. This technique involves using the patient’s own tissue, typically from the abdomen or back to reconstruct the breast.

Autologous tissue reconstruction offers a natural look and feel, as the reconstructed breast consists of the patient’s own tissue. However, it is a more complex procedure with a longer recovery time. It is common to lose sensation in the breast and in the area from which the tissue was taken.

In some cases, a combination of

implant-based reconstruction and autologous tissue reconstruction may achieve optimal results. This hybrid approach combines the advantages of both methods and can be tailored to the needs of each patient.

NIPPLE AND AREOLA RECONSTRUCTION

Breast reconstruction is not limited to creating the breast mound alone. Nipple and areola reconstruction helps to complete the overall aesthetic outcome. Some techniques for this include nipple reconstruction with local tissue or grafts or applying a three-dimensional medical tattoo for a realistic appearance.

TIMING AND CONSIDERATIONS

The timing of breast reconstruction can vary depending on the patient’s

preferences and treatment plan. Immediate reconstruction, performed at the same time as the mastectomy, offers the advantage of waking up with a reconstructed breast.

However, delayed reconstruction — performed weeks, months or even years after the mastectomy, allows for a staged approach and gives patients time to consider their options thoroughly. It is also recommended for those who may need to quit smoking or lose weight.

A qualified plastic surgeon who specializes in breast reconstruction is often part of the cancer treatment team and can provide solid advice on what the possibilities are as well as creating an individualized plan for the patient. Breast reconstruction is a personal choice and each person’s journey is unique.

Clinical Trials Are Vital

Breast cancer research has led to improved treatment options and increased survival rates.

Behind these advancements lies a critical component: clinical trials. These trials play an indispensable role in breast cancer research and contribute to finding new and more effective treatments, ultimately shaping the future of breast cancer care. They are the backbone of breast cancer research, driving innovation and breakthroughs in treatment options.

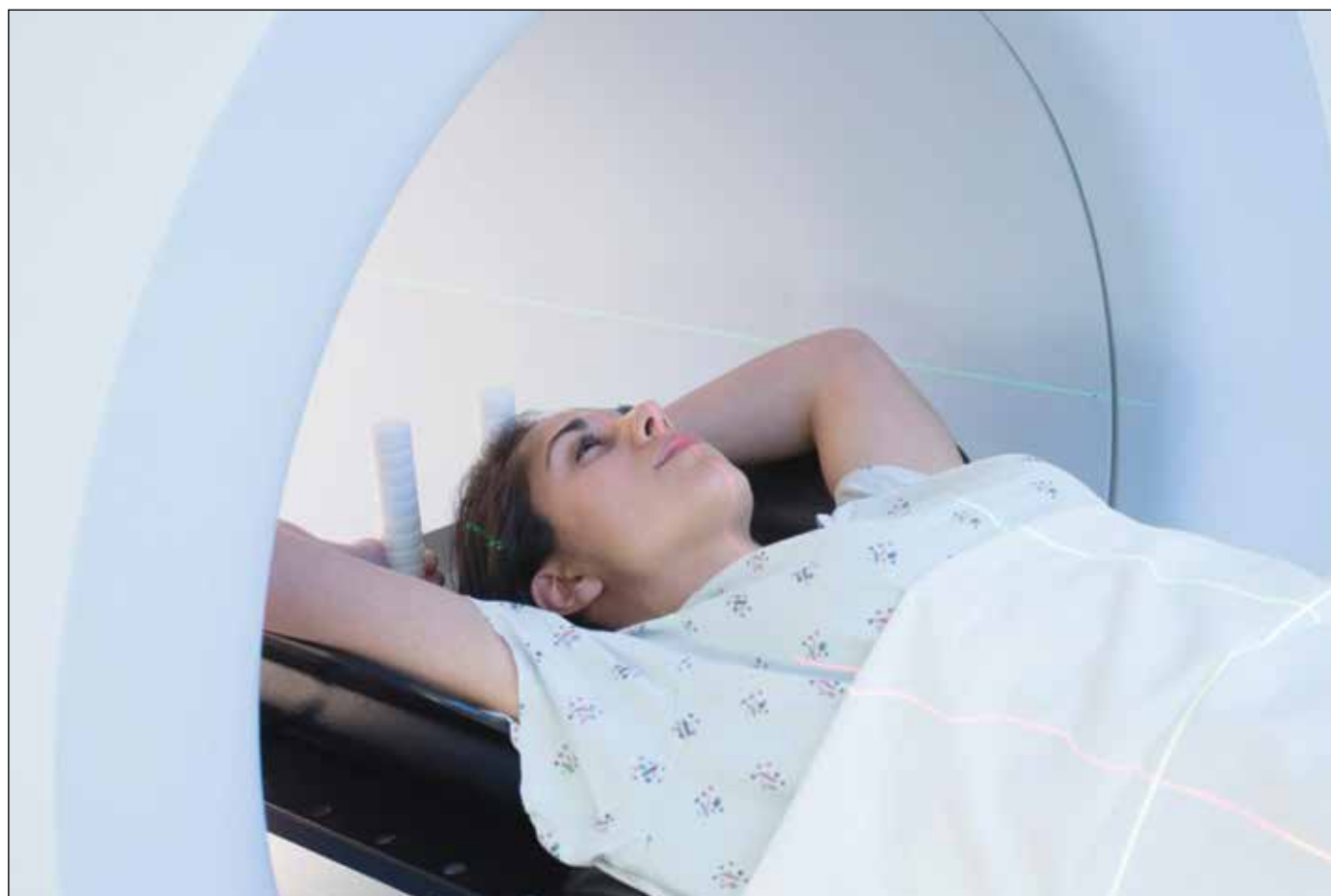
Clinical trials are scientific studies that researchers conduct to evaluate the safety and effectiveness of new medical interventions such as drugs, therapies and surgical techniques. These trials involve rigorous testing and close monitoring of participants to gather essential data that informs treatment decisions.

Patients and researchers who support and participate in clinical trials contribute to the ongoing fight against breast cancer, offering hope for a future where the disease can be conquered.

IMPORTANCE OF CLINICAL TRIALS

Clinical trials play a pivotal role in breast cancer research for many reasons.

They provide an avenue for evaluating novel treatment approaches and modalities,



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including targeted therapies, immunotherapies and combination treatments. By testing these interventions in controlled settings, researchers can determine their effectiveness and potential side effects.

Clinical trials contribute to the development of personalized medicine, which aims to tailor treatment to an individual's unique genetic and molecular profile. By identifying specific biomarkers and genetic mutations associated with breast cancer, researchers can design trials that target these specific characteristics, potentially leading to more precise and effective treatments.

Another role they play is in helping to evaluate the safety of new treatments.

Researchers closely monitor participants for any adverse effects, allowing them to understand potential risks and make informed decisions about the benefits and drawbacks of the intervention being tested.

TYPES OF CLINICAL TRIALS

Prevention trials investigate strategies to reduce the risk of breast cancer development in individuals at high risk. They may involve the use of medications, lifestyle modifications or interventions like prophylactic surgery.

Treatment trials evaluate the effectiveness of new therapies, including chemotherapy regimens, radiation tech-

niques and targeted therapies. These trials often compare standard treatments with experimental approaches to determine which offers better outcomes.

Screening and diagnostic trials focus on improving early detection methods and diagnostic tools for breast cancer, such as investigating the efficacy of new imaging technologies or developing blood-based biomarkers.

PARTICIPATING IN CLINICAL TRIALS

Participating in a clinical trial is a voluntary decision that can provide individuals with access to cutting-edge treatments before they are widely available. It's important

to consult with health care professionals and your cancer care team and to research the potential risks and benefits of participation.

The National Institutes for Health's National Cancer Institute keeps a list of clinical trials that they sponsor or help fund. The online listing explains the types and phases of the trials and how they are carried out. There is also a live online information specialist that you can chat with.

The Susan Komen Foundation points out that no one in a clinical trial is ever put on a placebo instead of a standard treatment. You might get a placebo in addition to the standard treatment. This assures you that you will get at least the same care that you would get if you were not in the trial.

The Komen Foundation does list some potential drawbacks. Each clinical trial has specific criteria for joining the study and some are done only in a few medical centers. Because the risks of a new treatment aren't yet fully understood, there is potential for unexpected side effects. You may have to undergo more blood tests and imaging tests than you would for a standard treatment.

Costs of the new treatment are usually paid for by the clinical trial. In some cases, participating in a clinical trial may lower a patient's out-of-pocket costs if their insurance normally wouldn't cover the cost of standard drug therapy treatment.

Timely Action Can Save Lives

Breast cancer continues to affect millions of men and women around the world.

While the battle against this disease is ongoing, early detection remains the key to reducing mortality rates and improving treatment outcomes. Regular screenings and self-examinations can empower people to take charge of their health and enhance their chances of early diagnosis, leading to more effective interventions and improved survival rate.

How important is it? The American Cancer Society reports that when breast cancer is detected early and is in the localized stage, the five-year relative survival rate is 99%. Early detection also reduces the need for aggressive therapies that can cause greater physical and emotional burdens.

Detecting cancer at an early stage, before it has had a chance to spread beyond the breast, significantly increases the likelihood of successful treatment and better overall outcomes. Treatment options tend to be less invasive and more successful, offering patients a better chance of survival and a higher quality of life.

SCREENING METHODS

Mammography, a low-dose X-ray examination of the breast, is a proven tool for early



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breast cancer detection. Most women should start having them annually at age 40, or earlier if there is a family or other risk. Health care professionals will recommend what each individual needs. These mammograms can identify breast abnormalities that are too small to be felt during a physical examination. Mammograms can detect tumors long before any symptoms are apparent, allowing for early intervention and more effective treatment options.

Health care professionals conduct clinical breast examinations, which complement

mammography screenings. The health care provider examines the breasts for any abnormalities, including lumps or changes in texture or appearance.

Breast self-examinations are another essential aspect of early detection and is something both women and men should do at least once a month. Examine your breast for any noticeable changes in size, shape or texture. Pay attention to whether you have nipple tenderness or a lump or thickening in the breast or underarm area. Other things to look for include any unexplained change in the size or

shape of the breast, swelling or shrinkage (especially just on one side), dimpling on the breast, an inverted nipple or skin that is taking on the appearance of an orange skin.

When self-exams are done monthly, you become familiar with your breast's normal appearance and feel and are more likely to identify any abnormalities.

Although self-exams should not replace regular mammograms or clinical examinations, they serve as a valuable tool for raising awareness. Seek medical attention whenever you notice any changes.

EDUCATION

Educating the public about breast cancer and the importance of early detection is important. Public health campaigns, community outreach programs and educational initiatives can provide people with the knowledge and resources they need to take proactive steps toward their health.

By increasing awareness of breast cancer risk factors, emphasizing the significance of regular screenings and promoting the benefits of self-examinations, people are more likely to value their breast health and seek timely medical care.

Treating Side Effects

Breast cancer treatment sometimes comes with various side effects that affect a person's physical, emotional and overall well-being.

While conventional medical interventions are essential in managing breast cancer, complementary therapies can help alleviate treatment-related side effects and enhance overall quality of life. Complementary therapies can offer benefits in managing side effects, but they should not be a replacement for standard medical care. Consult with health care professionals, oncologists or integrative medicine specialists before initiating any complementary therapies.

ACUPUNCTURE

An ancient Chinese healing practice, acupuncture involves the insertion of thin needles into specific points on the body. People have used it to alleviate various side effects of breast cancer treatment, such as chemotherapy-induced nausea and vomiting, pain, hot flashes and fatigue. Acupuncture is believed to stimulate the body's natural healing mechanisms and promote overall well-being.

MASSAGE THERAPY

Massage therapy involves the manipulation of soft tissues to promote relaxation,



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reduce muscle tension and improve circulation. It can help manage side effects such as pain, nausea, fatigue, anxiety and depression experienced during breast cancer treatment. Massage therapy offers a calming and soothing experience, promoting a sense of well-being and improving overall quality of life.

MIND-BODY TECHNIQUES

Mind-body techniques such as meditation, yoga and guided imagery focus on the connection between the mind and

body to promote healing and well-being. These practices can help reduce stress, anxiety and fatigue while improving sleep quality and overall mood. Mind-body techniques provide individuals with tools to cope with the emotional and physical challenges associated with breast cancer treatment.

HERBAL AND NUTRITIONAL SUPPLEMENTS

Certain herbal and nutritional supplements have been explored for their potential benefits in managing the side

effects of breast cancer treatment. For example, ginger has shown promise in reducing chemotherapy-induced nausea, while omega-3 fatty acids may help alleviate joint pain and inflammation. It's important to consult with health care professionals or integrative medicine specialists before incorporating any supplements into your regimen to ensure their safety and compatibility with your treatment plan.

AROMATHERAPY

Recent research has shown aromatherapy can help with

the side effects of many cancer treatments, particularly chemotherapy. Aromatherapy involves the use of essential oils to promote relaxation and improve well-being. It can help manage side effects such as anxiety, nausea and sleep disturbances. Commonly used essential oils for breast cancer patients include lavender, peppermint and chamomile. Aromatherapy can be administered through inhalation, topical application or in combination with massage therapy.

EXERCISE AND PHYSICAL ACTIVITY

Engaging in regular exercise and physical activity has numerous benefits for individuals undergoing breast cancer treatment. It can help manage fatigue, improve physical functioning, boost mood and enhance overall well-being. Exercise programs tailored to the individual's needs and capabilities, such as walking, yoga or strength training, can be effective in managing treatment-related side effects and promoting recovery.

SUPPORTIVE THERAPIES

Supportive therapies, such as support groups, counseling and psychotherapy, can provide a valuable outlet for emotional support and coping strategies. These therapies provide a safe space for individuals to share their experiences, express their emotions and receive guidance from professionals and peers who understand the challenges of breast cancer treatment.