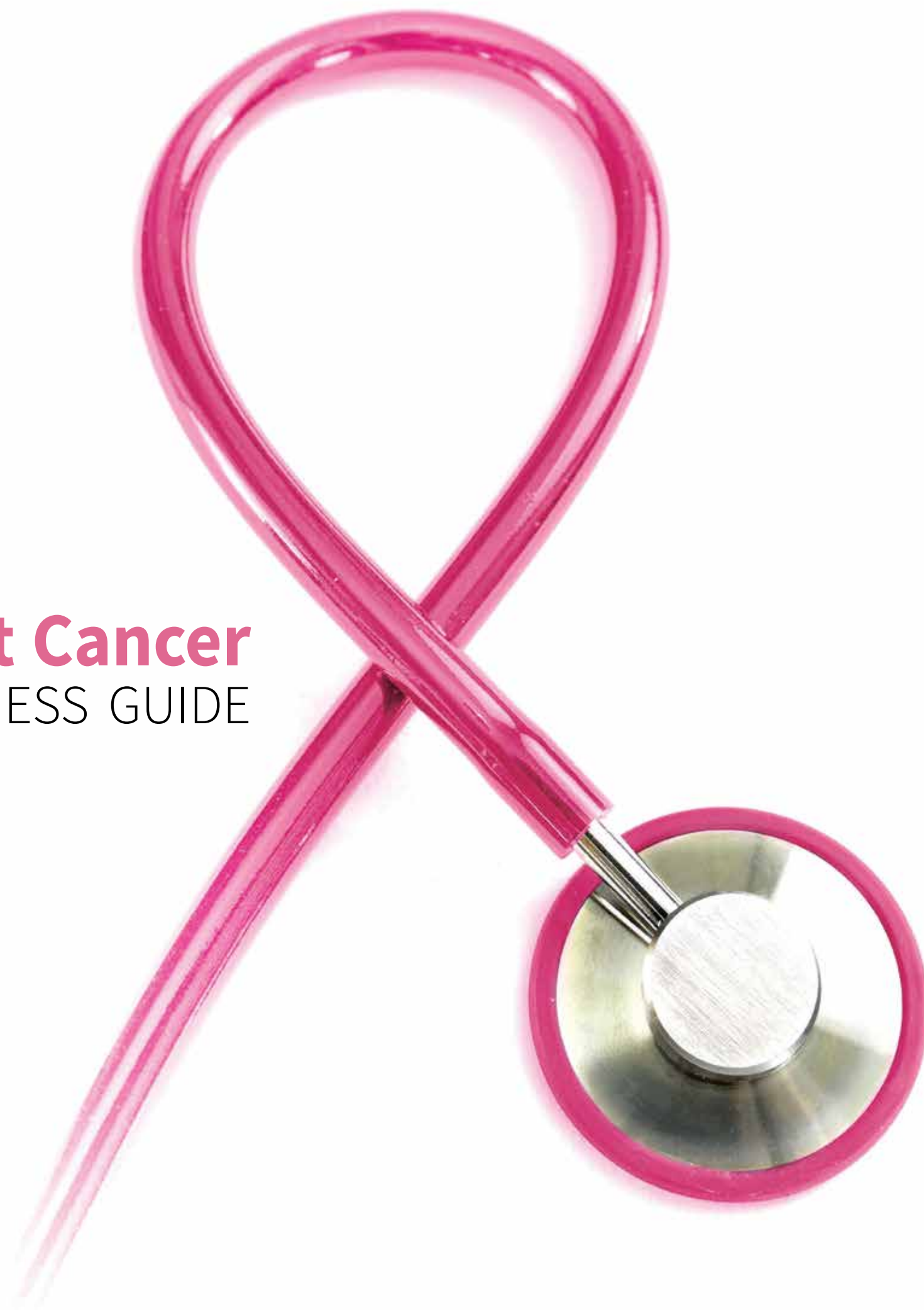


Breast Cancer

AWARENESS GUIDE



The Reach of Breast Cancer

Did you know that breast cancer is the second most common cancer in women? Or that men can get breast cancer? Or that, when caught and treated early, many types of breast cancer have almost a 100% cure rate?

Breast cancer — which occurs when breast cells grow out of control, form a tumor and become malignant — affected more than 250,000 people in 2018, according to the National Cancer Institute. About 3.5 million women are living with breast cancer in the United States, and more than 12% of women will be diagnosed with breast cancer in their lifetimes.

The number of deaths from breast cancer is 20.6 per 100,000 women per year; the death rate among all cancers (men and women) is 163.5 per 100,000 people, so breast cancer has a much higher rate of survival. It typically responds very well to treatment; almost nine out of 10 women treated for breast cancer are alive five years after their diagnoses. The success of treatment is heavily dependent on how early in the cancer's development it's diagnosed; more than 60% of cases



© ADOBE STOCK

About 3.5 million women are living with breast cancer in the United States, and more than 12% of women will be diagnosed with breast cancer in their lifetimes.

are found in the early stages of cancer, before it's metastasized to other organs, the treatment of which has a 99% five-year survival rate.

Breast cancer, like all types of

cancer, doesn't have a lot of easy answers about what causes it or what people can do to lessen their chances of developing a tumor. However, researchers have identified

some contributing factors.

A family history of cancer is a big one. Women whose grandmothers, mothers or sisters had breast cancer should talk to their doctors about effective testing techniques at an earlier age than is normally recommended. Other possible factors include having dense breast tissue; exposing breast tissue to estrogen because of late menopause, never giving birth, early menstruation or being older at the birth of a woman's first

child. Taking hormones also may contribute. Health factors like alcohol use and obesity also may contribute to cancer risk for all cancers.

We don't know how to prevent cancer, but there are steps women can take that are thought to reduce the risk of breast cancer; these protective factors include estrogen-only hormone therapy after a hysterectomy, healthy eating and exercise and other lifestyle factors.

What to Watch For

Since early diagnosis plays such an outsized role in successfully treating breast cancer, people should know what signs to look for and what the screening process will like when you go to the doctor.

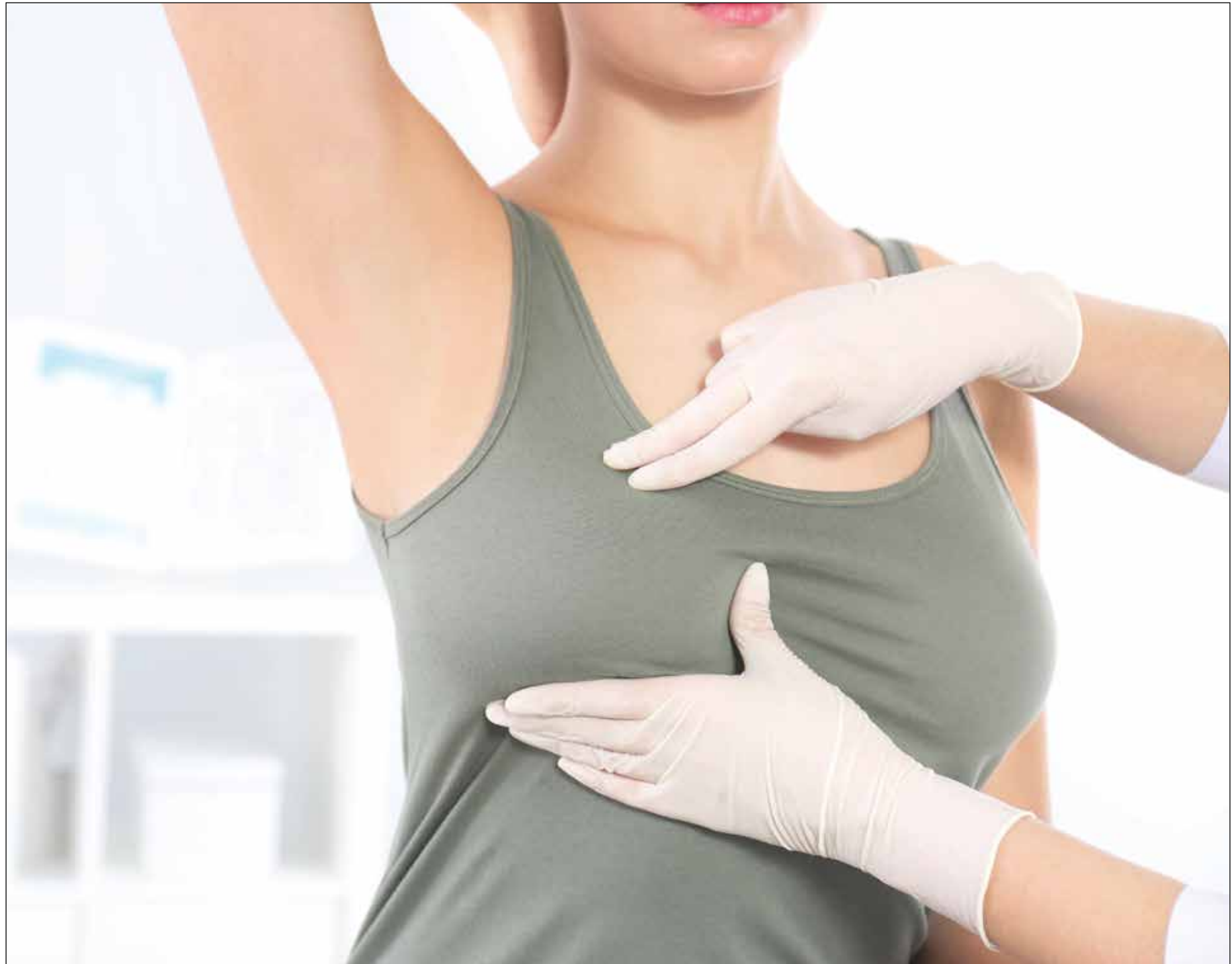
SYMPTOMS

According to the American Cancer Society, the most common symptom of breast cancer is a new lump or mass in the breast that wasn't previously there. A mass that is painless and hard and has irregular edges is more likely to be cancer, but malignant tumors can be soft, tender, round or painful. When you find a new lump, go to the doctor. This means women need to know what their breasts look and feel like, so regular self-exams are beneficial.

Other possible symptoms include swelling of the breast, skin dimpling or irritation, breast pain, nipple retraction, pain or discharge or the skin of the breast or nipple turning red, scaly or thick. Breast cancer also can manifest in swollen nodes in the armpit or around the collarbone.

SCREENINGS

During your annual physical, your doctor will examine your breasts and lymph nodes



© ADOBE STOCK

for changes. This will typically be the first step even when you go in knowing something has changed. Breast tissue can change with time; women develop cysts, and menstruation and menopause can affect tissue as well. Your doctor also will ask you about your family

history with all types of cancer, but particularly breast, uterine and ovarian cancers. Based on the exam and discussion, she may decide further testing, such as an ultrasound, is needed.

In an ultrasound, the doctor is able to isolate the affected

area and get a visual of sorts of the lump; its size, shape, density and other factors can help her determine if this is a tumor or a cyst or just a change in fatty breast tissue.

Another screening is a mammogram, which is an X-ray that can find tumors that aren't

felt with physical exams. These are recommended for all women 40 years old and older, but women who are at higher risk may start them earlier. In addition to tumors, mammograms can find small calcium deposits that are a sign of breast cancer.

Breast Cancer Treatment

For the most part, breast cancer is quite treatable. Much of its treatability depends on what stage the cancer is when diagnosed — the earlier, the better.

The National Cancer Institute, a branch of the National Institutes of Health, lists several options for treatment — surgery, radiation, chemotherapy and hormone or targeted therapy. Sometimes, surgery is all that's needed; in other cases, cancer patients may need several of these types of treatment to fight the tumor.

SURGERY

Almost all people with breast cancer will require surgery. Patients may get a lumpectomy, in which the tumor, other affected tissue and the surrounding normal tissue are removed. In the early stages of cancer, this may be sufficient. For more advanced cancer, a total mastectomy, or removal of the entire breast that is infected with cancer, or a double mastectomy may be required. Many patients with one or both breasts removed opt for follow-up reconstructive surgery after treatment.

Breast cancer often spreads to lymph nodes first, so removing some of those nodes may be necessary. Doctors may opt to remove the first



© ADOBE STOCK

lymph node to receive drainage from a tumor, known as a sentinel lymph node, since that is where cancer is likeliest to spread.

RADIATION AND CHEMOTHERAPY

Chemotherapy, which pumps heavy drugs into the body to slow or stop the growth of cancer cells, can be

used before surgery to shrink a tumor or after surgery to kill any cancer cells still in the body. Done before surgery, this can lessen the amount of tissue that needs to be removed. Radiation, in which X-rays are used to destroy cancer cells, can be used after surgery. Both treatments have been shown to help people survive cancer, but they also

serious and harmful side effects on the patient.

HORMONE AND TARGETED THERAPY

Both of these treatments are used after surgery with the purpose of killing any remaining cancer cells. Hormone therapy gets rid of hormones, which can cause breast cancer to grow, so reducing the pro-

duction of hormones like estrogen or stopping them from feeding the cancer can help to destroy cancer cells still in the body.

Targeted therapy uses drugs to target specific cancer cells without hurting healthy cells; this can include antibodies, which deliver cancer-fighting drugs to the cancer cells instead of attacking every cell.

Breast Cancer's Emotional Toll

Both the cancer and treatment take a hard toll on the body, leading to fatigue, nausea, lowered immunity and many other symptoms. But it also takes a mental toll, both on the person with cancer and his or her family and friends.

The American Cancer Society talks about how people fighting breast cancer often find themselves overwhelmed with emotion, including depression, anxiety, fear and other feelings of distress.

Even after successful treatment, survivors may feel stress and worry. The ACS says many people are concerned the cancer will come back, or they still feel or see physical effects from the treatment, including surgery scars and other changes to their body, or effects on other parts of life, such as altered relationships or missing out on opportunities at work. Cancer is also an expensive disease, leading to financial worry.

Breast cancer can bring with it specific emotional issues. Mastectomies mean women's bodies look dramatically different, and they may not like their new look or may struggle to get accustomed to



© ADOBE STOCK

it. Survivors often worry about changed sexuality after breast cancer; this is even more pronounced in young women who have gone through treatment. They worry about the effects of the cancer and subsequent treatments on their fertility. Chemo also has been connected to early menopause in some women.

Family members, friends and caregivers also may experience many emotions, along with worry that they can't help a loved one or don't know what to do.

According to the ACS, treatment for these emotional issues during and after treatment are critical for overall good health. Many hospitals

or cancer treatment centers offer support groups for survivors and family members; talk to your oncologist or primary care provider about connecting with one of those groups, or ask for a referral for a counselor who specializes in such issues. Churches can often be a source of support for people, while others prefer to join

an online support group.

For people with questions or who want general support, the ACS' Reach to Recovery program matches people in treatment with a local volunteer who had breast cancer who can provide answers, offer support and help make cancer treatment be a less isolating experience.

Questions to Ask

A breast cancer diagnosis is scary, and often patients don't know what to ask when their doctor tells them what's happening.

Although you have a cancer treatment team and you'll have opportunities to ask questions at subsequent appointments, it can be helpful to have an idea of what you need to know as you go to follow-up appointments and meet other care providers.

Don't be afraid to ask your doctor about their experience treating this type, getting a second opinion and any detail you don't understand. This can help you not only get the information you need but also take some measure of control over your life during a difficult time. The American Cancer Society has lists of questions to help you.

WHEN YOU'RE DIAGNOSED

- How big is the cancer? Where exactly is the tumor?
- Has it spread to lymph nodes or other organs?
- What stage is it? What does that mean?
- Who else will be on my treatment team?
- How much will this cost? What does my insurance cover? Is there a patient advocate who can help me through the financial side of this?

BEFORE AND DURING TREATMENT

- What are my options for treatment? What are the positives and negatives of each?
- How long should I expect treatment to last?
- What side effects will I experience?
- What treatment do you recommend/what regimen would you do if you were diagnosed

- with this type of cancer?
- Are clinical trials an option? Should I look at that?
- Will I lose my hair? How will treatment affect my daily life?
- What happens if this treatment doesn't work?
- How will we know if the treatment is working?
- Are there ways to manage side effects?

- What lifestyle changes should I make during treatment — a different diet or exercise regimen, for example?
- If I experience depression or anxiety, what resources are available?

SURGERY

- What type of surgery is best for me?
- Should I consider a full

- mastectomy, even though the cancer hasn't spread?
- How long will recovery take? How much of that will be in the hospital versus at home?
- What will happen during recovery? Will I have stitches or staples, will there be a drain coming out of the site?
- What are my options for breast reconstruction? What are the risks?



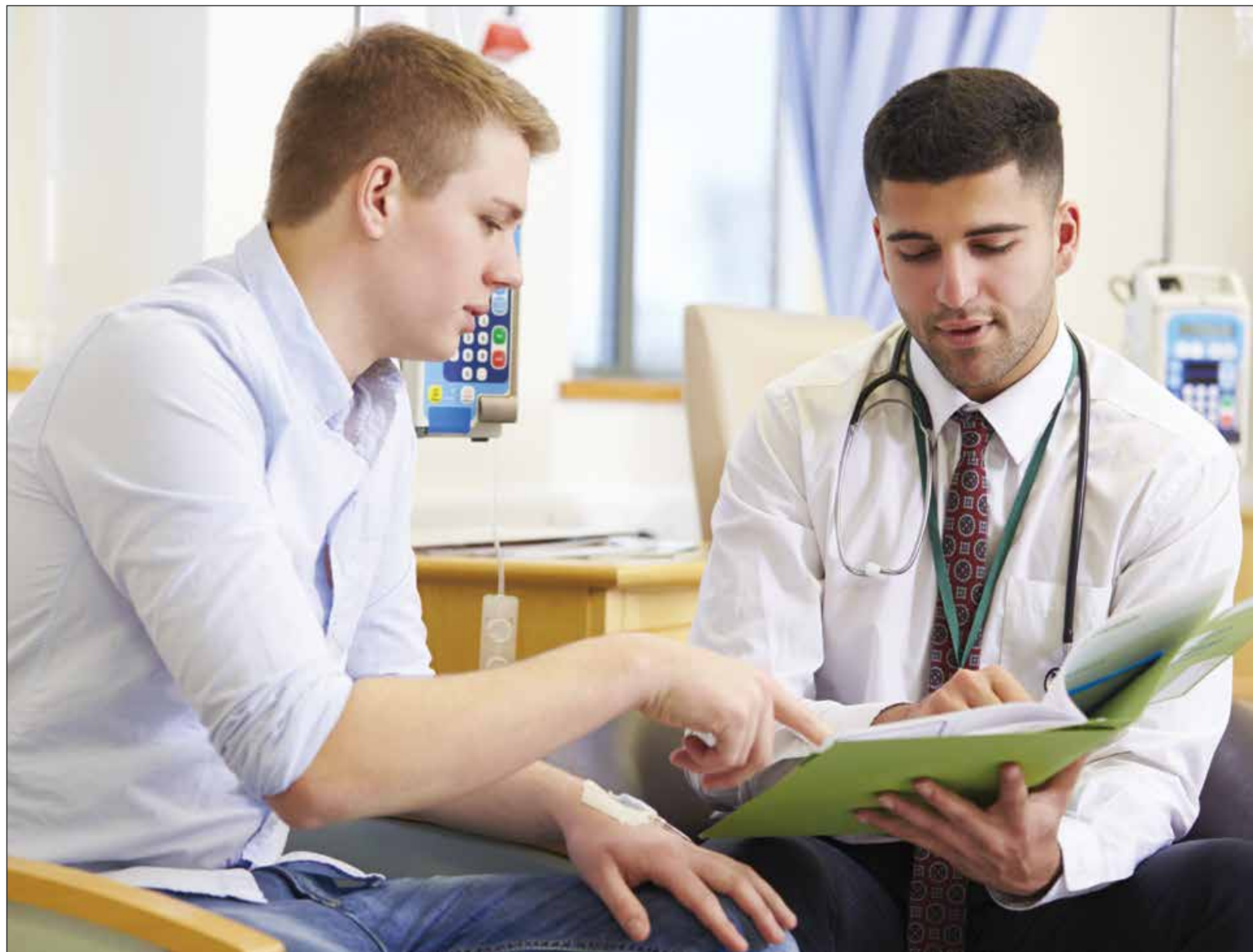
Breast Cancer in Men

Breast cancer occurs in breast tissue, which both women and men have. Although it's rare, male breast cancer does happen.

It's diagnosed and treated similarly in all genders, so early diagnosis remains key. The science around the cause of male breast cancer is unclear, according to the Mayo Clinic, same as most types of most cancer, though male breast cancer is even more mysterious. People of all genders are born with some breast tissue and milk-producing glands (lobules) that transport milk to the nipples and fat. When a girl hits puberty, she develops more breast tissue, and boys do not. Boys, however, do still have the breast tissue with which they were born.

The most common type of breast cancer in men is ductal carcinoma, which begins in the milk ducts.

Just as with women, there is research indicating a family history of breast cancer increases the likelihood of a man getting the disease. Gene mutations like BRCA2 (the same mutation actress Angelina Jolie had that put her at a high risk of breast cancer) increases a man's risk of breast cancer and prostate cancer. Older age remains a risk factor, as does exposure



© ADOBE STOCK

to estrogen, obesity or liver or testicular disease. Men who are born with Klinefelter's syndrome, a genetic condition in which some boys have more than one copy of the X chromosome, also increase a man's likelihood of contracting breast cancer.

Early diagnosis and treat-

ment is critical for best outcomes in male breast cancer, which can be harder since it's not always the first condition tested for, so knowing the symptoms is important. These include a painless lump in or thickening of the breast tissue, changes to the nipple (redness, scaling or turning

inward) or nipple discharge or changes to the skin covering the breast area. Men who see these symptoms should ask their doctor for further assessment. According to the Mayo Clinic, diagnosis and treatment is similar to what women experience: clinical breast exams, medical imag-

ing that enables the doctor to see problem areas, or a biopsy, during which the doctor extracts tissue from the suspected tumor and tests it.

Male breast cancer is often hormone-related, so doctors may recommend hormone therapy in addition to surgery, chemotherapy and radiation.

Breakthroughs

Because it is so common, many scientists study breast cancer, looking for causes, better diagnosis and treatment options and even a cure.

The National Cancer Institute shared some of the latest breakthroughs in breast cancer research, including clinical research that could lead to improved care at every stage of cancer treatment. Clinical trials are often available for prevention, screening and treatment; ask your doctor for options.

DETECTING BREAST CANCER

Breast cancer already is one of the easiest-to-find cancers; mammograms and other imaging tools are effective and widely used in identifying and diagnosing tumors. Scientists are looking for ways to enhance the current options available for breast cancer screening, such as 3D mammography, a procedure that takes pictures from a variety of angles around the breast and then builds a 3D-like image. Assessment tools must be measured in terms of their effectiveness not only in finding malignant tumors but in not creating false positives, i.e. telling a woman she has cancer when she doesn't. This procedure is being tested for that effectiveness.

TREATMENT

Breast cancer can be divided into subgroups that affect the way doctors treat them, using specific hormone therapies to target cells. A study on patients with an estrogen receptor cancer found a test that looks at certain genes can help some women safely avoid chemo. The Food and Drug Administration has approved several breast can-

cer treatments that target specific cell-growth molecules, and more of these treatments are being developed.

There have been advances in the treatment of hormone receptor-positive advanced breast cancer that have been shown to prolong the time until chemo is needed, possibly extend survival and prevent relapse. In HER2-positive

breast cancer (HER2 is a protein; elevated levels are found in some women with breast cancer), the FDA has approved a number of therapies that show positive effects in treating this type of cancer, preventing a relapse or keeping the disease from spreading to the brain.

OTHER RESEARCH

Researchers also are look-

ing at the effectiveness of screening across communities, why black women are more likely to be diagnosed with aggressive forms of breast cancer and are more likely to die of breast cancer than white women as well as issues related to breast cancer survivors, including their continued physical and mental health, sleep disturbances, financial impacts and more.

