



## BEATING BREAST CANCER. WE GOT THIS!

For nearly four decades, the U.S. has recognized October as National Breast Cancer Awareness Month. Given that 1 in 8 women will be diagnosed with breast cancer, no matter who you are or where you live, breast cancer touches your life. In the United States, about 264,000 women get breast cancer each year. There's a lot we can do to prevent, better treat and help those who suffer with breast cancer.

In honor of National Breast Cancer Awareness Month, take action. Take the Mammogram Pledge to prioritize your health. Walk in a local Susan G. Komen Race for the Cure, or join a local American Cancer Society Making Strides Against Cancer Walk. Enjoy a delicious mocktail instead of your favorite alcoholic beverage.

With advances in detection, treatment, risk reduction and our collective efforts, we can work to beat breast cancer together.

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## CAN FOOD REDUCE YOUR RISK OF BREAST CANCER?

Published by BreastCancer.org

<https://www.breastcancer.org/managing-life/diet-nutrition/breast-cancer-risk-reduction/can-food-reduce-risk>

No food or diet can prevent you from getting breast cancer. But some foods can make your body the healthiest it can be and help keep your risk for breast cancer as low as possible.

No food or diet can prevent you from getting breast cancer. But some foods can make your body the healthiest it can be, boost your immune system, and help keep your risk for breast cancer as low as possible. And no food or diet can cure cancer, though some of them may help control treatment side effects or help your body get well after treatment. Some food choices may help cancer treatment work more effectively or may help keep you healthy. Others can be dangerous and can interfere with treatment and recovery.



### HEALTHY WEIGHT REDUCES RISK OF FIRST-TIME BREAST CANCER AND RECURRENCE.

Maintaining a healthy weight may help reduce the risk of breast cancer coming back. Studies have shown that women who gained weight after their breast cancer diagnosis had an increased risk of recurrence.

Studies on maintaining a healthy weight and lowering the risk of a first-time breast cancer suggest that overweight women have an increased risk of breast cancer after menopause compared to women at a healthy weight.

If you're not sure what your healthy weight should be, use some of the tips and tools available on the Assess Your Weight page. A healthy eating plan should include some physical activity. Aim for 3 to 4 hours of walking per week to start. If you're having treatment right now, you may need to start slowly and work up to this.

### LOW-FAT DIET MAY REDUCE RISK OF RECURRENCE AND FIRST-TIME BREAST CANCER.

Sticking to a low-fat diet may help reduce the risk of breast cancer coming back. One study in which women got only about 25% of their daily calories from fat found a lower risk of recurrence, mostly in women who'd been diagnosed with estrogen-receptor-negative breast cancer. It will take more than this one study to know who is most likely to get the biggest benefit from specific dietary changes. But no matter what kind of cancer you've had, you might get significant benefit from lowering the amount of fat in your diet. Plus, other healthy choices are more likely to come with a low-fat diet, such as eating more fruits and vegetables and losing weight. All these changes together may help lower your risk of recurrence.

The large Women's Health Initiative Trial compared the breast cancer risk of postmenopausal women who ate a low-fat diet to those who continued to eat their regular diet. The researchers didn't find any significant differences in breast cancer risk between the two groups. But the study did suggest that a low-fat diet may reduce the risk of first-time breast cancer for women whose diets are very high in fat to begin with. More research is needed to determine if this relationship becomes stronger over time. And reducing fat and increasing fruits, vegetables, and whole grains in your diet will ensure your body is getting enough nutrients and contribute to your overall health. Also, a low-fat diet will probably help you lose weight, if you are trying to do that.

## NO FOODS OR SUPPLEMENTS ARE LINKED SPECIFICALLY TO BREAST CANCER.

There is no strong evidence that any specific foods or supplements will lower the risk of getting breast cancer or reduce the risk of recurrence.

Research has shown that getting the nutrients you need from a variety of foods, especially fruits, vegetables, and whole grains, can make you feel your best and give your body the energy it needs. You can get many of the nutrients you need from the food you eat. If you're considering taking supplements, it's a good idea to have a registered dietitian evaluate your diet. You may need a bit more of a specific nutrient like folate or vitamin A. That's why women both with or without a prior breast cancer often take a multiple vitamin and mineral supplement. Many women also need calcium supplements to meet their daily calcium requirements.



## RESEARCH ON DIET AND BREAST CANCER IS ONGOING.

Studies are looking at the relationship between diet and breast cancer risk and the risk of recurrence. The Women's Health Initiative Trial suggested that a diet very low in fat may reduce the risk of breast cancer. More research is needed in this important area for women who are interested in eating well to reduce their risk of ever getting breast cancer.

In the meantime, here's what dietitians suggest:

- Keep your body weight in a healthy range for your height and frame. Body mass index, though not a perfect measurement, can help you estimate your healthy weight.
- Eat plenty of vegetables and fruit (more than 5 cups a day).
- Try to limit your saturated fat intake to less than 10% of your total calories per day, and limit your fat intake to about 30 grams per day.
- Eat foods high in omega-3 fatty acids.
- Avoid trans fats, processed meats, and charred or smoked foods.
- You'll find that processed foods generally don't fit in this type of diet as well as fresh foods do.

To develop a healthy diet that meets your needs, seek advice from a registered dietitian. He or she will thoroughly evaluate your medical, diet, and weight history. Then the registered dietitian will work with you on an individualized plan to meet all your goals:

- keep your risk of breast cancer as low as possible
- provide you with good nutrition
- keep you as healthy as possible



# 8 PLACES FOR PEOPLE WITH BREAST CANCER TO TURN FOR MENTAL HEALTH SUPPORT

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<https://www.healthline.com/health/breast-cancer/breast-cancer-mental-health-support>

Receiving a breast cancer diagnosis can be stressful, and the treatment process can bring about new complications that add to that stress. It can feel overwhelming to manage side effects and fatigue, all while navigating concerns about insurance, employment, and personal relationships.

People with cancer often experience anxiety and mood disorders such as depression. Even after you complete breast cancer treatment, fear of recurrence can make it difficult to enjoy your survivorship status.

Mental health support is available, though. And getting support for your mental health when you have breast cancer could improve your outlook, reduce side effects such as fatigue, and enhance your overall quality of life.

Fortunately, there are many organizations that have made it easier than ever to get mental health support as you cope with breast cancer.



## 1. BREASTCANCER.ORG COMMUNITY SUPPORT

Community support, also known as peer-to-peer support, allows you to share information with others who are going through similar experiences.

Connecting with others helps you manage your emotions in a way that a medical team may not be able to help you with.

With more than 200,000 members and at least 83 online forums on top of planned virtual meetups, Breastcancer.org provides an entire support community at your fingertips.

## 2. YOUNG SURVIVAL COALITION

The Young Survival Coalition was founded by a group of women who all received a diagnosis of breast cancer before age 40.

The organization's support programs are for young adults with metastatic breast cancer. It offers both local in-person support, as well as digital communities where you can share your feelings and experiences.

## 3. AMERICAN CANCER SOCIETY REACH TO RECOVERY PROGRAM

The American Cancer Society Reach to Recovery program connects people coping with breast cancer with other breast cancer survivors. This free program will match you with a volunteer who has gone through a similar experience.

## 4. CANCER SUPPORT COMMUNITY

Cancer Support Community operates a global nonprofit network that encompasses 175 locations. It was founded by a cancer survivor and its mission is to ensure that no one faces cancer alone.

If you're feeling overwhelmed or have questions about how to cope with your cancer, you can reach out to the organization's staff via live webchat.

## 5. CANCERCARE

CancerCare provides free, professional support services to help people manage the emotional, practical, and financial challenges of cancer.

Due to public health concerns with the COVID-19 pandemic, the organization has temporarily suspended in-person services, but it still offers counseling over the phone.

It also offers a free 15-week online support group for people with breast cancer who are currently receiving treatment. The group is led by an oncology social worker.

## 6. ART THERAPY

Art therapy can reduce anxiety, depression, and pain among people with cancer, according to 2020 research<sup>Trusted Source</sup>. This complementary therapy offers people with cancer an expressive outlet and a source of empowerment.

Art therapy involves painting or drawing to help you understand your emotions. It can improve your mood, promote relaxation, and increase psychological well-being. You don't have to be an artist to participate.

Some hospitals sponsor programs that include art therapy, such as the Arts in Medicine program at Moffitt Cancer Center and the Expressive Arts Therapy program at Dana-Farber Cancer Institute.

Ask your cancer care team if a program is available for you nearby.

The art therapist locator tool from the American Art Therapy Association can also help you find a professional near you.

## 7. HERE FOR THE GIRLS

The mission of Here for the Girls is to help those under the age of 51 who have been diagnosed with breast cancer. The group acknowledges that younger people face different challenges with breast cancer due to their age.

The organization's emotional and social support comes in the form of both in-person and virtual groups. It also offers an annual wellness retreat and outdoor events throughout the year.

## 8. PSYCHOLOGY, PSYCHIATRY, OR COUNSELING

Healthcare professionals may recommend both group and individual therapy to help manage stress or depression for people with cancer.

Ask your breast cancer care team or a social worker to refer you to a licensed psychologist, psychiatrist, or mental health counselor.

These professionals may use an approach known as cognitive behavioral therapy. They can also prescribe medications if they think you'd benefit from an approach that involves more than one method.

Due to the COVID-19 pandemic, many of these services have transitioned to virtual sessions. This is great news for anyone living in a rural area who may have trouble

finding a local therapist who specializes in mental health for people with cancer.

These virtual sessions are sometimes called teletherapy. You can receive teletherapy through video chat, phone calls, and even text messaging.

Research from 2021 suggests that teletherapy can be as effective as traditional in-person mental health services, at least in the short term.



## TAKEAWAY

Some degree of anxiety and stress is expected when you are living with breast cancer. It won't make your breast cancer worse or prevent you from recovering. But it's important to seek help if you find that fear, anxiety, or stress is interfering with your daily activities, sleep habits, or relationships.

Managing anxiety and stress before, during, and after cancer treatment can be life changing. You may find that your mental health support needs change as you go through the various stages of breast cancer treatment and recovery.

Don't hesitate to try out a few different approaches before choosing an organization. You may find that a combination of different approaches works best for you.



# 3D MAMMOGRAM

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<https://www.mayoclinic.org/tests-procedures/3d-mammogram/about/pac-20438708>

## OVERVIEW

A 3D mammogram (breast tomosynthesis) is an imaging test that combines multiple breast X-rays to create a three-dimensional picture of the breast.

A 3D mammogram is used to look for breast cancer in people who have no signs or symptoms. It can also be used to investigate the cause of breast problems, such as a breast mass, pain and nipple discharge.

When used for breast cancer screening, 3D mammogram machines create 3D images and standard 2D mammogram images. Studies show that combining 3D mammograms with standard mammograms reduces the need for additional imaging and slightly increases the number of cancers detected during screening. But more study is needed to understand whether 3D mammograms may reduce the risk of dying of breast cancer more than a standard mammogram alone.

The 3D mammogram is becoming more common, but it isn't available at all medical facilities.

## WHY IT'S DONE

A 3D mammogram is used as a breast cancer screening test to look for breast cancer in people with no signs or symptoms of the disease. It can also be used to investigate breast problems, such as a suspicious lump or thickening.

When used for breast cancer screening, the 3D mammogram machine creates 3D images and standard 2D mammogram images because both types of images have some advantages in seeing certain breast abnormalities.

Combining a 3D mammogram with a standard mammogram can:

- Reduce the need for follow-up imaging. When doctors detect abnormalities on standard mammogram images, they may recommend additional imaging. Being called back for additional imaging can be stressful. It may take extra time and lead to additional costs. Combining a 3D mammogram with a standard mammogram reduces the need for follow-up imaging.
- Detect slightly more cancers than a standard mammogram alone. Studies indicate that combining

a 3D mammogram with a standard mammogram can result in about one more breast cancer for every 1,000 women screened when compared with standard mammogram alone.

- Improve breast cancer detection in dense breast tissue. A 3D mammogram offers advantages in detecting breast cancer in people with dense breast tissue because the 3D image allows doctors to see beyond areas of density.

Breast tissue is composed of milk glands, milk ducts and supportive tissue (dense breast tissue) and fatty tissue. Dense breasts have greater amounts of dense breast tissue than fatty tissue. Both dense breast tissue and cancers appear white on a standard mammogram, which may make breast cancer more difficult to detect in dense breasts.

There isn't enough evidence to conclude that 3D mammograms can reduce the risk of dying of breast cancer more than a standard mammogram alone. For this reason, most guidelines for breast cancer screening don't specify that women should choose 3D mammograms over standard mammograms alone.


## RISKS

A 3D mammogram is a safe procedure. As with every test, it carries certain risks and limitations, such as:

Exposure to a low level of radiation. A 3D mammogram uses X-rays to create an image of the breast, which exposes you to a low level of radiation. Because a 3D mammogram is usually combined with a standard mammogram, the level of radiation may be greater than a standard mammogram alone. Some newer 3D mammogram machines can create both 3D and 2D images at the same time, which lowers the amount of radiation.

The test may find something that turns out to not be cancer. A 3D mammogram may identify an abnormality that, after additional tests, turns out to be benign or consistent with normal tissue. This is known as a false-positive result, and it can cause unneeded anxiety if you undergo additional imaging and testing, such as a biopsy, to further assess the suspicious area.

The test can't detect all cancers. It's possible for a 3D



mammogram to miss an area of cancer, such as if the cancer is very small or if it's in an area that's difficult to see.

## HOW YOU PREPARE

To prepare for your 3D mammogram:

- **Choose a facility that offers 3D mammograms.** Though 3D mammograms are becoming more common, they aren't available everywhere. If you're interested in this test, ask your doctor whether it's available in your area.
- **Check with your insurance provider.** Not all insurance companies cover 3D mammograms. Check with your insurance provider before your test so that you'll know what types of costs to expect. Your insurance company may cover the standard mammogram portion of the test, while you'll be responsible for the cost of the 3D mammogram portion.
- **Schedule the test for a time when your breasts are least likely to be tender.** If you haven't gone through menopause, that's usually during the week after your menstrual period. Your breasts are most likely to be tender the week before and the week during your period.
- **Bring your prior mammogram images.** If you're going to a new facility for your 3D mammogram, gather any prior mammograms and bring them with you to your appointment so that the radiologist can compare them to your new images.
- **Don't use deodorant before your mammogram.** Avoid using deodorants, antiperspirants, powders, lotions, creams or perfumes under your arms or on your breasts. Metallic particles in powders and deodorants can interfere with the imaging.

## WHAT YOU CAN EXPECT

At the testing facility, you're given a gown and asked to remove any necklaces and clothing from the waist up. To make this easier, wear a two-piece outfit that day.

For the procedure itself, you stand in front of an X-ray machine equipped to perform 3D mammograms. The

technician places one of your breasts on a platform and raises or lowers the platform to match your height. The technician helps you position your head, arms and torso to allow an unobstructed view of your breast.

Your breast is gradually pressed against the platform by a clear plastic plate. Pressure is applied for a few seconds to spread out the breast tissue. The pressure isn't harmful, but you may find it uncomfortable or even painful. If you have too much discomfort, tell the technician.

Next, the 3D mammogram machine will move above you from one side to the other as it collects images. You may be asked to stand still and hold your breath for a few seconds to minimize movement.

The pressure on your breast is released, and the machine is repositioned to take an image of your breast from the side. Your breast is positioned against the platform again, and the clear plastic plate is used to apply pressure. The camera takes images again. The process is then repeated on the other breast.

## RESULTS

The images collected during a 3D mammogram are synthesized by a computer to form a 3D picture of your breast. The 3D mammogram images can be analyzed as a whole or examined in small fractions for greater detail. For breast cancer screening purposes, the machine also creates standard 2D mammogram images.

A doctor who specializes in interpreting imaging tests (radiologist) examines the images to look for abnormalities that may be breast cancer. If the radiologist sees anything unusual, he or she will use your standard mammogram and any older mammogram images that are available to determine whether additional testing is needed.

Additional tests for breast cancer may include an ultrasound, an MRI or, sometimes, a biopsy to remove suspicious cells for testing in a lab by doctors who specialize in analyzing body tissue (pathology testing).

## CLINICAL TRIALS

Explore Mayo Clinic studies of tests and procedures to help prevent, detect, treat or manage conditions.



## WHAT'S NEW IN BREAST CANCER RESEARCH?

Published by The American Cancer Society

<https://www.cancer.org/cancer/breast-cancer/about/whats-new-in-breast-cancer-research.html>



### WHAT'S NEW IN BREAST CANCER RESEARCH?

Researchers around the world are working to find better ways to prevent, detect, and treat breast cancer, and to improve the quality of life of patients and survivors.

#### RESEARCH STUDIES

Current guidance on preventing and treating breast cancer as well as what might cause it (among other things) has come mainly from information discovered from research studies. Research studies can range from studies done in the lab to clinical trials done with hundreds of thousands of people. Clinical trials are carefully controlled studies that can gather specific information about certain diseases as well as explore promising new treatments.

Clinical trials are one way to get the latest cancer treatments that are being investigated. Still, they are not right for everyone. If you would like to learn more about clinical trials that might be right for you, start by asking your doctor if your clinic or hospital conducts clinical trials, or see Clinical Trials to learn more.

#### BREAST CANCER CAUSES

Studies continue to look at how certain lifestyle factors, habits, and other environmental factors, as well as inherited gene changes, might affect breast cancer risk. Here are a few examples:

- Several studies are looking at the effects of physical activity, weight gain or loss, and diet on breast cancer risk.
- Some breast cancers run in families, but many of the gene mutations (changes) that cause these breast cancers are not yet known. Research is being done to identify these gene changes.
- Several studies are focusing on the best use of genetic testing for inherited breast cancer gene mutations.
- Scientists are exploring how common gene variants (small changes in genes that are not as significant as mutations) may affect breast cancer risk. Gene variants typically have only a modest effect on risk by themselves, but when combined they could possibly have a large impact.
- Possible environmental causes of breast cancer have also received more attention in recent years. While much of the science on this topic is still in its earliest stages, this is an area of active research.

#### BREAST CANCER PREVENTION

Researchers are looking for ways to help reduce breast cancer risk, especially for women who are at high risk. Here are some examples:

- Studies continue to look at whether certain levels



of physical activity, losing weight, or eating certain foods, groups of foods, or types of diets might help lower breast cancer risk.

- Some hormonal medicines such as tamoxifen, raloxifene, exemestane, and anastrozole have already been shown to help lower breast cancer risk for certain women at higher risk. Researchers continue to study which groups of women might benefit most from these drugs.
- Clinical trials are also looking at whether some non-hormonal drugs might lower breast cancer risk, such as drugs used to treat blood or bone marrow disorders, like ruxolitinib.
- Studies are looking at vaccines that might help prevent certain types of breast cancer.



## NEW TESTS TO PERSONALIZE YOUR TREATMENT

### Biomarkers

Breast cancer tissue is routinely tested for the biomarkers ER, PR, and HER2 to help make treatment decisions. A biomarker is any gene, protein, or other substance that can be measured in blood, tissues, or other body fluids.

Circulating tumor DNA (ctDNA) is DNA that is released into the bloodstream when cancer cells die. Identifying and testing the ctDNA in the blood for biomarkers is a rapidly growing area of study.

Some ways ctDNA might potentially be used in breast cancer including:

- Looking for new biomarkers in the tumor cells that might mean the cancer has become resistant to specific treatments (like chemo or targeted drug therapy)
- Determining if a certain drug will work on a tumor before trying it
- Predicting if the breast cancer will recur (come back) in women with early-stage breast cancer
- Predicting if neoadjuvant treatment is working to destroy the tumor instead of using imaging tests like a CT scan or US
- Determining if breast cancer or a high-risk breast condition is present before changes are found on an imaging test like a mammogram

## NEW IMAGING TESTS

Newer types of tests are being developed for breast imaging. Some of these are already being used in certain situations, while others are still being studied. It will take time to see if they are as good as or better than those used today. Some of these tests include:

- Scintimammography (molecular breast imaging)
- Positron emission mammography (PEM)
- Electrical impedance imaging (EIT)
- Elastography
- New types of optical imaging tests
- For more on these tests, see [Newer and Experimental Breast Imaging Tests](#).

## BREAST CANCER TREATMENT

New kinds of treatments for breast cancer are always being studied. For example, in recent years, several new targeted drugs have been approved to treat breast cancer.

But more and better treatment options are needed, especially for cancers like triple-negative breast cancer, where chemotherapy is the main option.

Some areas of research involving breast cancer treatment include:

- Studying if shorter courses of radiation therapy for very early-stage breast cancers are at least as good as the longer courses now often used

- Testing if different types of radiation therapy, such as proton beam radiation, might be better than standard radiation.
- Combining certain drugs (like 2 targeted drugs, a targeted drug with an immunotherapy drug, or a hormone drug with a targeted drug) to see if they work better together
- Trying to find new drugs or drug combinations that might help treat breast cancer that has spread to the brain
- Testing different immunotherapy drugs to treat triple-negative breast cancer

Giving cancer vaccines with standard chemotherapy to see if this helps keep the cancer from coming back after treatment

Finding new ways to treat women with hereditary breast cancer, since they have a higher chance of the cancer recurring (coming back)

Determining if chemotherapy is needed to treat every woman with HER2-positive breast cancer

Finding new treatment options when breast cancer becomes resistant to current treatments

## SUPPORTIVE CARE

Supportive care helps patients and caregivers manage the symptoms of cancer and side effects of cancer treatment. Clinical trials are looking at different medicines and techniques to try to improve supportive care for people with breast cancer. For example, some studies are investigating:

- If there are better medicines or ways to prevent the damage to nerves that sometimes happen with certain chemotherapy drugs
- If drugs or other treatments might be helpful in limiting memory problems and other brain symptoms after chemotherapy
- If certain heart or blood pressure drugs, can help prevent the heart damage sometimes caused by common breast cancer drugs such as doxorubicin and trastuzumab
- If there are medicines that might be able to help treat the tired feeling that cancer can cause

## STAY ON TOP OF YOUR HEALTH WITH MARPAI

To stay on top of your game, your need to stay on top of your health. Maintaining annual checkups, vaccinations, and screenings is one of the easiest ways to do this. Recommended preventive care, like an annual mammogram, can lead to early diagnosis and better health outcomes.

The myMarpai app makes it easy to find an in-network provider. In addition, you can show your digital health ID card, see health benefits, track spending and deductibles, view claims, manage care for your family, have a telehealth visit and more. Download the app today!

