A collection of resources that provide information and support for patients and the professionals who treat them.
What does PERJETA treat?

PERJETA® (pertuzumab) is a prescription medicine approved for use in combination with Herceptin® (trastuzumab) and chemotherapy for use after surgery (adjuvant treatment) in people with HER2-positive early breast cancer that has a high likelihood of coming back.

How well does a treatment regimen after surgery including PERJETA work?

In a clinical study involving 4,804 people with HER2+ early breast cancer who started treatment after surgery:

- Treatment after surgery with PERJETA + Herceptin + chemotherapy in 2,400 people lowered the risk of the cancer coming back by 18% when compared to Herceptin-based therapy in 2,404 people.
- Three years after starting the trial, most of the trial participants were still cancer-free, regardless of which treatment they received. However, slightly more people in the group that got PERJETA + Herceptin + chemotherapy were cancer-free (94.1%), compared to the other group (93.2%).

HER2=human epidermal growth factor receptor 2.

Important Safety Information

What should I know about side effects with PERJETA?

- Not all people have serious side effects; however, side effects with PERJETA therapy are common. It is important to know what side effects may happen and what symptoms you should watch for.
- Your doctor may stop treatment if serious side effects happen. Be sure to contact your healthcare team right away if you have questions or are worried about any side effects.

What are the most serious side effects of PERJETA?

PERJETA may cause heart problems, including those without symptoms (such as reduced heart function) and those with symptoms (such as congestive heart failure).

- Your doctor may run tests to monitor your heart function before and during treatment with PERJETA.
- Based on test results, your doctor may hold or discontinue treatment with PERJETA.
- Contact a health care professional immediately for any of the following: new onset or worsening shortness of breath, cough, swelling of the ankles/legs, swelling of the face, palpitations, weight gain of more than 5 pounds in 24 hours, dizziness or loss of consciousness.

What is the most common side effects during pregnancy can result in the death of an unborn baby and birth defects.

- Birth control should be used while receiving PERJETA and for 7 months after your last dose of PERJETA. If you are a mother who is breastfeeding, you should talk with your doctor about either stopping breastfeeding or stopping PERJETA.
- If you think you may be pregnant, you should contact your healthcare provider immediately.
- If you are exposed to PERJETA during pregnancy, or become pregnant while receiving PERJETA, you should contact your healthcare provider immediately.

Receiving PERJETA during pregnancy can result in the death of an unborn baby and birth defects.

- Three years after starting the trial, most of the trial participants were still cancer-free, regardless of which treatment they received. However, slightly more people in the group that got PERJETA + Herceptin + chemotherapy were cancer-free (94.1%), compared to the other group (93.2%).

What are other possible serious side effects?

- PERJETA should not be used in patients who are allergic to pertuzumab or to any of the ingredients in PERJETA.
- Infusion-related reactions: PERJETA is a medicine that is delivered into a vein through a needle. PERJETA has been associated with infusion-related reactions, some fatal. The most common infusion-related reactions when receiving PERJETA, Herceptin, and docetaxel were feeling tired, abnormal or altered taste, allergic reactions, muscle pain, and vomiting. The most common infusion-related reactions when receiving PERJETA alone were fever, chills, feeling tired, headache, weakness, allergic reactions, and vomiting.

What are the most common side effects?

The most common side effects of PERJETA when given with Herceptin and chemotherapy as part of an early breast cancer regimen after surgery are:

- Diarrhea
- Nausea
- Hair Loss
- Feeling tired
- Vomiting
- Damage to the nerves (numbness, tingling, pain in hands/feet)

You are encouraged to report side effects to Genentech and the FDA. You may report side effects to the FDA at 1-800-FDA-1088 or www.fda.gov/medwatch. You may also report side effects to Genentech at 1-888-835-2555.

Please see the accompanying Important Facts for additional Important Safety Information, including most serious side effects, on next page.

Visit PERJETA.com/patient for more information.

If you cannot afford your medicine, contact genentech-access.com/patient for financial assistance information.
My breast cancer treatment decision.

I'M ALL IN.

With HER2+ early breast cancer, your doctor's goal is to keep you cancer-free for as long as possible with the intent to get you closer to cure. This type of breast cancer is aggressive and, in some patients, has a high chance of returning after surgery.

Keep in mind that even if you get treatment after surgery, the cancer may still come back. In addition, some people may experience serious or common side effects while receiving treatment after surgery.

Visit PERJETA.com/patient to learn more.

SPEAK UP NOW, get involved in your treatment plan and ask your doctor if including PERJETA, a prescription medicine, in your treatment regimen is right for you.
What is the most important information I should know about PERJETA?

PERJETA may cause heart problems, including those without symptoms (such as reduced heart function) and those with symptoms (such as congestive heart failure)
- Your doctor may run tests to monitor your heart function before and during treatment with PERJETA.
- Based on test results, your doctor may hold or discontinue treatment with PERJETA.
- Contact a doctor immediately for any of the following: new onset or worsening shortness of breath, cough, swelling of the ankles/legs, swelling of the face, palpitations, weight gain of more than 5 pounds in 24 hours, dizziness or loss of consciousness.

Receiving PERJETA during pregnancy can result in the death of an unborn baby and birth defects
- Birth control should be used while receiving PERJETA and for 7 months after your last dose of PERJETA. If you are a mother who is breastfeeding, you should talk with your doctor about either stopping breastfeeding or stopping PERJETA.
- If you think you may be pregnant, you should contact your doctor immediately.
- If you are exposed to PERJETA during pregnancy, or become pregnant while receiving PERJETA or within 7 months following the last dose of PERJETA in combination with Herceptin, you are encouraged to report PERJETA exposure to Genentech at 1-888-835-2555.

What is PERJETA?

PERJETA is a prescription medicine approved for use in combination with Herceptin® (trastuzumab) and chemotherapy for use after surgery (adjuvant treatment) in people with HER2-positive early breast cancer that has a high likelihood of coming back.

Who should not receive PERJETA?

You should not receive PERJETA if you are allergic to pertuzumab or to any of the ingredients in PERJETA.

Tell your doctor about all the medicines you take

Be sure to include prescription and over-the-counter medicines, vitamins, or herbal supplements.

How should I receive PERJETA?

Your doctor will give you PERJETA in your vein through an intravenous (IV) line over 30-60 minutes.

PERJETA is usually given every 3 weeks for 1 year (up to 18 cycles), or is stopped sooner if the cancer comes back or if side effects become too difficult to manage.

If you miss any appointments, call your doctor as soon as possible to reschedule your appointment.

What are the possible side effects of PERJETA?

PERJETA can cause serious side effects. See “What is the most important information I should know about PERJETA?”

Infusion-related reactions:

- PERJETA is a medicine that is delivered into a vein through a needle. PERJETA has been associated with infusion-related reactions, some fatal. The most common infusion-related reactions when receiving PERJETA, Herceptin, and docetaxel were feeling tired, abnormal or altered taste, allergic reactions, muscle pain, and vomiting. The most common infusion-related reactions when receiving PERJETA alone were fever, chills, feeling tired, headache, weakness, allergic reactions, and vomiting. You will be observed closely after your infusions. If a significant infusion-related reaction occurs, your infusion may be slowed or interrupted and may be permanently discontinued if you experience a severe reaction.

Severe allergic reactions:

- Some people receiving PERJETA may have severe allergic reactions, called hypersensitivity reactions or anaphylaxis, which may happen quickly and may affect many areas of the body. Severe allergic reactions, some fatal, have been observed in people treated with PERJETA. You will be observed closely during and after your infusion for these severe allergic reactions.

The most common side effects of PERJETA when given with Herceptin and chemotherapy as part of an early breast cancer regimen after surgery:

- Diarrhea
- Nausea
- Hair Loss
- Feeling tired
- Damage to the nerves (numbness, tingling, pain in hands/feet)
- Vomiting

These are not all the possible side effects of PERJETA. For more information, ask your doctor or pharmacist. Call your doctor for medical advice about side effects. You may report side effects to the FDA at 1-800-FDA-1088.

The risk information provided here is not comprehensive. To learn more, talk about PERJETA with your doctor. The FDA-approved product labeling can be found at PERJETAPI.COM.
For HER2+ breast cancer:

Resources and information to help you throughout your treatment journey

**HERConnection** is a free support program designed specifically for people with HER2+ breast cancer taking Genentech medicines.

When you sign up, you’ll receive information and resources to empower you and help you throughout your treatment.

Visit [HERConnection.com](https://HERConnection.com) and sign up to get started.
You cannot beat yourself up over a diagnosis of cancer. Although receiving the news is daunting, it is the first step to surviving.

My story begins with a family history of breast cancer in close relatives, including my mother. My mother was given a breast cancer diagnosis twice in her lifetime, and I had hoped to avoid it by being an active, wellness-oriented person. Although being generally healthy would make my treatment easier to endure, it did not stop me from getting cancer.

I never felt a lump. I was given a diagnosis of carcinoma in situ — early-stage cancer, in which the disease is still confined to one area — after a routine mammogram and biopsy. I underwent a mastectomy, during which the doctors found another tumor and discovered that the cancer had spread to multiple lymph nodes. I was then given a diagnosis of stage 2B human epidermal growth factor receptor 2-positive, hormone receptor-negative breast cancer. I was 54 years old.

I will be honest; the year I was given a cancer diagnosis was challenging. The first thing that came to mind when I received the diagnosis was the title of a book I read when my mother was first diagnosed: First, You Cry by Betty Rollin. The second thing that came to mind was what my mother always told me in times of adversity: “Just take a deep breath and keep going.”

If you are dealing with HER2-positive breast cancer, be assured that treatment is a marvel of modern medicine. My treatment included Taxotere (docetaxel) and carboplatin, as well as a biological drug called Herceptin (trastuzumab), an antibody that targets overexpression of the HER2 protein. In conjunction with this cocktail, I took an anti-nausea drug (Emend) and a white blood cell booster (Neulasta) to help prevent infection. When chemotherapy ended, treatment with Herceptin continued, and I underwent 36 days of radiation therapy. I did not seek breast reconstruction.

Knowing what to expect during my treatment journey gave me great comfort. Fortunately, my cancer center provided me with CURE® resources that helped guide me through every stage of my cancer experience. Other tools that helped me through my treatment included Siddhartha Mukherjee’s The Emperor of All Maladies, which was published the month I began treatment with Herceptin, a subject Mukherjee dedicates an entire chapter to in the book. I also participated in a HER2-positive support group, her2support.org, through which women shared honest words about living with cancer, including metastatic cancer, thanks to modern medicine. I continue to follow innovations in cancer and HER2-positive treatments as I keep my fingers crossed during routine checkups.

HER2-positive breast cancer is the result of a complicated genetic glitch that I am still trying to wrap my head around, but I learned many lessons while navigating the challenges a cancer diagnosis brings. Based on my experience, I recommend keeping a journal to record the facts of your case and your feelings that go with them. I still go back and read my old journals, including one I kept while getting infusions. Learning more about cancer and treatment options from your medical team and your own research will help you navigate your journey. I strongly recommend that you seek out role models, as I did in the forum and among survivors I met along the way. And, as tempting as it may be for some of us to appear superhuman, be human. The support of friends, family, pets and my medical team helped tremendously.

The helpful information included in this resource guide should inspire you in many ways as you join the HER2-positive breast cancer community of survivors.

— Felicia, HER2-positive breast cancer survivor
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Information About HER2-Positive Breast Cancer

Breast cancer in general is the second most common cancer among American women. It can also occur in men, although rarely, compared with women. In 2018, an estimated 266,120 new cases of breast cancer were diagnosed in women and 2,550 new cases were diagnosed in men.\(^1\)

HER2-positive breast cancer is a type of breast cancer that tests positive for the human epidermal growth factor receptor 2 gene. This gene makes the HER2 receptor, a protein involved in the growth of breast cells. HER2-positive breast cancers have too much HER2 receptor, which fuels growth of the cancer cells. It is an invasive and very aggressive type of the disease that typically grows and spreads faster than other breast cancers.\(^\text{2,3}\) About one in four of all new breast cancer cases are HER2-positive.\(^4\)

**Risk Factors for Breast Cancer**

The exact causes of breast cancer remain unclear, but damage to the DNA in cells plays a role.\(^5\)

HER2-positive breast cancer arises because of a type of genetic mutation that randomly occurs at some point after birth.\(^6\) The mutation is not inherited from a parent,\(^7\) and so having a close relative with this disease does not increase the risk of HER2-positive breast cancer.

Any woman or man with breast tissue can get HER2-positive breast cancer, although it is more common in younger women.\(^6\) Some of the major risk factors associated with breast cancer in general include age, race/ethnicity, genetics and being a woman.\(^9\) Other factors that can increase your risk include:\(^10,11\)

- Being overweight.
- Eating an unhealthy diet.
- Getting too little exercise.
- Smoking.
- Having three or more alcoholic drinks per week.

Although there is no guaranteed way to prevent any type of breast cancer, some lifestyle changes may help reduce your risk. These include:\(^10\)

- **Maintaining a healthy weight:** Speak with your health care provider for advice about what would be a healthy weight for you.
- **Following a healthy eating plan:** Aim for a varied diet consisting of at least 5 cups of fruit and vegetables, less than 30 grams of fat and a mixture of protein sources each day.
- **Being physically active:** Try to get at least 4 to 5 hours of exercise each week.

**Signs and Symptoms of Breast Cancer**

The signs and symptoms of all types of breast cancer vary widely. In general, you should be aware of how your breasts look and feel so that you will quickly recognize any unusual changes. You should immediately report these changes to your physician, because when breast cancer is found early, it is more likely to be treated successfully.\(^12\)

In most cases, the first sign involves feeling a lump in the breast. Other possible signs and symptoms to watch for include:\(^12\)

- **Stopping smoking:** If you smoke, ask your physician for advice about quitting. Your physician will be able to tell you about resources such as smoking cessation programs and will decide if a quit-smoking medication is right for you.
- **Limiting alcohol intake:** If you wish to drink alcohol, aim for two or fewer drinks each week.

- Breast swelling.
- Breast or nipple pain.
- Irritated or dimpled (“orange-peel” appearance) breast skin.
- An inward-turned nipple.
- Nipple discharge that is not milk.
- Changes in the texture of the skin of the nipple or breast (redness, scaliness or thickening).
- A lump under the arm or near the collarbone.
Diagnosis

Some patients receive a diagnosis of breast cancer after they find a lump — perhaps during a breast self-examination — or experience symptoms. However, it is possible to have breast cancer without having symptoms, which is why physicians advise regular screening for breast cancer.  

Several tests are used in the course of diagnosing breast cancer, such as:

- **Breast exam:** You should be aware of how your breasts normally look and feel, and visit your physician immediately if you notice any changes. During your annual examination, your physician will also check your breasts and lymph nodes in your armpits for any abnormalities.
- **Mammogram:** an X-ray of the breast.
  - Regular screening mammograms offer the best means to detect breast cancer at an early stage, sometimes even several years before symptoms develop. They are routinely used to look for evidence of breast cancer in women who have no symptoms. Women who regularly get mammograms and receive a breast cancer diagnosis are also less likely to need aggressive treatment like mastectomy (breast removal) and chemotherapy and are more likely to be cured of their cancer. Your physician can advise you on when you should start having screening mammograms and how often you need them.
  - Your physician will order a diagnostic mammogram if the screening mammogram shows any signs of cancer or if you report suspicious breast symptoms, such as a lump, a change in breast shape or size, or discharge from the nipple. The process is similar to having a screening mammogram, but the technician may take more X-rays during the diagnostic one.
- **Breast ultrasound:** uses sound waves to look within the breasts and check for abnormal changes.
- **Magnetic resonance imaging:** uses magnetic fields and radio waves to produce images of the inside of the breasts. If you need an MRI, you will receive a special dye, usually by injection, before the procedure to show details of any abnormal findings.
- **Breast biopsy:** involves removing a sample of the cancer cells for testing. Although the other tests can help analyze abnormalities, only a biopsy can provide a definite diagnosis of breast cancer. Using a special type of needle and guided by an imaging procedure, such as X-ray or ultrasound, the physician removes a small sample of tissue from the suspicious area in the breast. The sample is then examined in the laboratory by pathologists — doctors who specialize in examining tissues — who check for the presence of cancer and, if present, how aggressive or invasive it is.

When breast cancer is diagnosed, a pathologist will test for the presence of receptors such as HER2. The results will help guide you and your physician in deciding what treatments might be best for you.

The two tests commonly used to check for HER2 are known as fluorescence in situ hybridization and immunohistochemistry:

- **FISH:** counts the number of copies of the HER2 gene in breast cancer cells. The result is either positive or negative.
- **IHC:** determines whether there is too much HER2 receptor protein in the cancer cells. The result will be 0 (negative), 1+ (negative), 2+ (borderline) or 3+ (positive, indicating too much HER2 receptor protein).

Staging

Staging is a way to tell how advanced the cancer is. The stage of a breast cancer is usually based on specific features that are determined from all the diagnostic tests. Part of this overall staging system involves the TNM system, which considers three important characteristics of the cancer:

- Its size and whether it is invasive, meaning it has spread to nearby tissue (T).
- Whether it has spread to the lymph nodes (N).
- Whether it has spread elsewhere in the body (M).

The overall breast cancer staging system also considers some other important features:

- **Tumor grade:** determined based on the appearance of the cancer cells under the microscope.
- **Hormone receptor status:** whether the cancer cells test positive or negative for the presence of receptors for the hormones estrogen and progesterone.
- **HER2 status:** whether the cancer cells have too many copies of either the HER2 gene or too much HER2 receptor protein.
- **Oncotype DX score:** the result of a test that looks at groups of genes in the breast cancer to help predict the chance of the cancer returning after surgery and the likely benefit of having chemotherapy or radiotherapy. This test is used if a breast cancer is diagnosed as invasive and early stage and if the cancer is estrogen receptor positive, HER2 negative, and has not spread to the lymph nodes.

This information helps physicians classify breast cancer into one of five stages, which are identified as 0, 1, 2, 3 and 4.
• **Stage 0:** noninvasive cancer — it is in the breast, but has not spread anywhere else in the body.

• **Stage 1:** early-stage cancer in which the cancer is small (0.2-2 millimeters) and invasive but found in just one area of the breast tissue or has spread to the lymph nodes.

• **Stage 2:** cancer that is either small but has spread to the lymph nodes or has grown to be larger than 5 centimeters but remains contained in the breast.

• **Stage 3:** advanced cancer — it has spread to either the tissue immediately surrounding the breast or to lymph nodes but has not spread to other parts of the body.

• **Stage 4:** advanced or metastatic cancer, in which the original cancer has spread to other parts of the body. Stage 4 breast cancer is incurable.

**Chemotherapy**

Chemotherapy involves using drugs to destroy cancer cells. However, these drugs also affect healthy cells, which likely will lead to side effects. These vary depending on the patient and the drugs used, but common side effects include diarrhea, constipation, nausea, vomiting, hair loss, fatigue and early menopause.

Most patients with HER2-positive breast cancer receive a treatment regimen known as AC-TH. This is a combination of chemotherapy drugs (doxorubicin, cyclophosphamide and paclitaxel) and the targeted therapy trastuzumab.

**Targeted Therapy**

Targeted therapy uses drugs that hone in on certain parts of specific cancer cells. This helps avoid the serious side effects associated with typical chemotherapy drugs that also target rapidly dividing healthy cells in the body.

**Radiation**

Radiation therapy uses high-energy X-rays to destroy cancer cells. For patients with breast cancer, radiation therapy is more commonly given after a lumpectomy (adjuvant radiation therapy). Many patients who have a mastectomy may not need radiation therapy.

Radiation therapy may also be given before surgery (neoadjuvant radiation therapy). This is not common but might be used to help shrink a very large tumor that cannot be removed by surgery.

**Hormone Therapy**

Hormone therapy is used for patients with HER2-positive breast cancer that also tests positive for either progesterone or estrogen receptors, which fuel growth of the cancer cells. Therapy can be used to halt that action and help prevent breast cancer from returning. It can also be used before surgery to help shrink the tumor.

HER2-positive breast cancers are less likely to respond to hormone therapy than other types of breast cancer. However, they are more likely to respond to medications that target the HER2 protein. If you have HER2-positive breast cancer, most likely you will need more than one type of treatment at a time.

**Clinical Trials**

Clinical trials are research studies that look for new and better ways to treat people with certain diseases and conditions, including breast cancer. Clinical trials are not appropriate for everyone, and there are pros and cons involved in joining one. Talk to your physician to get more information about clinical trials in HER2-positive breast cancer and whether you might be a good fit for one.
Health, Diet and Emotional Support

HER2-positive breast cancer may cause a variety of symptoms that affect your regular routine, but lifestyle modifications can help you maintain your quality of life. This section provides tips and suggestions to help manage your condition, but it is also important that you talk with your health care provider before beginning anything new.

Health
Fatigue, or extreme tiredness, is the most common side effect of breast cancer treatment. This is different from normal tiredness because it does not go away after resting. Exercise offers an important way to help manage fatigue. Ideally, to help you feel better both physically and emotionally, you should aim for about 4 hours per week. If you have not been physically active, talk to your health care provider for advice before beginning a program. You can start slowly, walking for about 15 minutes a day, and gradually build up to an hour or longer. Don’t overdo it – take a break whenever you need one.

Patients who are undergoing chemotherapy should also pay attention to their oral health. One-third of patients who are undergoing treatment for cancer will experience oral health complications. Consider visiting your dentist both before and after treatment for a full checkup. Symptoms such as difficulty swallowing (known as dysphagia), changes in taste, mouth dryness and oral pain should be discussed with your health care provider.

It is also important to care for your health in other ways when undergoing cancer treatment. Some physicians advise abstaining from alcohol while receiving chemotherapy because, like alcohol, these drugs are processed in the liver. You will also benefit from giving up smoking and tobacco products and from reducing stress in your life. Ask your physician for help as you start making important lifestyle changes.

Diet
Eating well during and after cancer treatment will give your body the nutrients it needs to stay strong during recovery. Ideally, you should eat a varied diet that contains plenty of vegetables and fruit and provides enough calories and protein for your specific needs. If you have no appetite, try eating by the clock instead of waiting to feel hungry. Eating small amounts of food every hour or so throughout the day will help you get the nutrients you need.

Chemotherapy can also leave you feeling dehydrated, and so drink plenty of fluids and eat foods that are rich in water, such as cucumbers, carrots, apples, berries, peaches and oranges. Getting adequate protein is especially important to help your body heal and fight infection during cancer treatment. Each day, aim for at least half a gram of protein per pound of body weight.

Your health care team may also connect you with a registered dietitian. This nutrition expert will help you develop an eating plan that meets your specific dietary needs as you go through treatment.

Emotional Support
Getting a diagnosis of breast cancer and going through treatment can be very stressful. It is not unusual for patients with breast cancer to feel many emotions, including anxiety, depression and fear. Even after treatment, you may be concerned about the cancer returning. Many patients also worry about the cost of treatment and how their illness will affect their family, friends and work life.

Patients who receive a diagnosis of breast cancer face unique stresses. Women may be concerned about how the cancer will change their appearance and sexuality. Younger women may worry about how the illness and treatment might interfere with family planning or the possibility of entering early menopause after chemotherapy.

Although these emotions don’t affect all patients to the same extent, everyone needs some emotional support at some point during their breast cancer journey. You should not feel that you need to go through this alone. The many sources of support include family and friends, faith-based groups, online communities and one-on-one counselors. Choose the type of support that best suits your personality and needs.

We compiled some educational and supportive resources that may be useful if you are not sure how to share your concerns or seek assistance. Please see pages 18 through 26 for more information.
Frequently Asked Questions

What is HER2-positive breast cancer?
HER2-positive breast cancer is a type of breast cancer that tests positive for the HER2 gene, which makes the HER2 receptor, a protein involved in the growth of breast cells. This type of breast cancer has too much HER2 receptor, fueling growth of the cancer cells. It is an invasive and very aggressive type of the disease, typically growing and spreading faster than other breast cancers.\(^2\,^3\)

How many women have HER2-positive breast cancer?
Breast cancer in general is the second most common cancer among American women. HER2-positive breast cancer accounts for about one in four of all new breast cancer cases.\(^4\)

How do I know if I am at risk of HER2-positive breast cancer?
HER2-positive breast cancer arises from a type of genetic mutation that randomly occurs at some point after birth.\(^6\) The mutation is not inherited from a parent,\(^7\) so having a close relative with this disease does not increase the risk of HER2-positive breast cancer. Any woman or man with breast tissue can get HER2-positive breast cancer, although it is more common in younger women.\(^8\) Some of the major risk factors associated with breast cancer in general include age, race/ethnicity, genetics and being a woman.\(^9\) Additional risk factors include:\(^10\,^11\)
- Being overweight.
- Eating an unhealthy diet.
- Getting too little exercise.
- Smoking.
- Having three or more alcoholic drinks per week.

What are the symptoms of HER2-positive cancer?
The signs and symptoms of all types of breast cancer vary widely. In general, you should be aware of how your breasts look and feel so that you will quickly recognize any unusual breast changes, and immediately report any changes to your physician.\(^13\)

In most cases, the first sign involves feeling a new lump in the breast. Other signs and symptoms to watch for include:\(^12\)
- Breast swelling.
- Breast or nipple pain.
- Irritated or dimpled (“orange-peel” appearance) breast skin.
- An inward-turned nipple.
- Nipple discharge that is not milk.
- Changes in the texture of the skin of the nipple or breast (redness, scaliness or thickening).
- A lump under the arm or near the collarbone.

What can I do to lower my risk of HER2-positive breast cancer?
Although there is no guaranteed way to prevent any type of breast cancer, some lifestyle changes may help reduce your risk. These include:\(^12\)
- Maintain a healthy weight.
- Eat a healthy diet.
- Exercise.
- Stop smoking.
- Limit alcohol intake.

How is HER2-positive breast cancer detected?
Some patients receive a diagnosis after they find a breast lump or experience symptoms. However, others can have breast cancer without any such symptoms.\(^13\) Several different tests are used in the course of diagnosing breast cancer, including:
- Breast exam.
- Mammogram.
- Ultrasound.
- MRI.
- Biopsy.

How is HER2-positive breast cancer treated?
For most patients with early-stage disease, the standard of care involves treatment with a combination of chemotherapy and a targeted therapy to try to shrink the tumor, making it easier to remove at surgery.\(^24\)

Various treatment options may be used if you have HER2-positive breast cancer, and you should talk with your physician to decide which types might be best for your situation:\(^25\)
- Surgery (lumpectomy and mastectomy).
- Chemotherapy.
- Targeted therapy.
- Radiation.
- Hormone therapy.
- Clinical trial.
Glossary of Important Terms

**Breast biopsy:** a procedure to remove a sample of breast tissue for testing

**Breast cancer staging:** determining how advanced breast cancer is by taking into account the findings of all the diagnostic tests

**Breast ultrasound:** a test that uses sound waves to look at the inside of the breasts and check for abnormal changes

**Chemotherapy:** a type of drug that destroys cancer cells

**Clinical trial:** a type of research study that looks for new and better ways to treat people, often investigating the safety and effectiveness of new treatments or procedures

**FISH:** fluorescence in situ hybridization, a test used to check HER2 status in breast cancer cells

**HER2:** the human epidermal growth factor receptor 2 gene, which makes the HER2 receptor, a protein involved in the growth of breast cells

**HER2-positive breast cancer:** a type of breast cancer that has too much HER2 receptor protein

**Hormone therapy:** a type of therapy that is used to stop hormones from causing breast cancer growth in patients who test positive for either progesterone or estrogen receptors

**IHC:** immunohistochemistry, a test used to check HER2 status in breast cancer cells

**Lumpectomy:** a surgical procedure that removes only the tumor, with a small margin of visibly healthy surrounding tissue

**MRI:** magnetic resonance imaging, a technique that uses magnetic fields and radio waves to produce images of the inside the breasts

**Mammogram:** a breast X-ray that can be used for screening or diagnostic purposes

**Mastectomy:** a surgical procedure to remove the entire breast

**Oncotype DX:** a test that looks at groups of genes in the breast cancer to help predict the chance of the cancer returning after surgery and the likely benefit of having chemotherapy or radiotherapy

**Pathologist:** a doctor who has special training in diagnosing disease, including cancers

**Radiation therapy:** a type of therapy that uses high-energy X-rays to destroy cancer cells

**Surgical oncologist:** a doctor who has special training in cancer surgery

**Targeted therapy:** a type of cancer treatment using drugs that precisely target certain parts of specific cancer cells

**Tumor grade:** a measure of how abnormal the cancer cells look under a microscope
Questions to Ask Your Health Care Provider

A diagnosis of cancer can be overwhelming. Here are some questions you may want to ask your health care provider, suggested by the American Cancer Society, Cancer Treatment Centers of America and the American Society of Clinical Oncology. Take this list to your appointment; there’s space so you can add notes and questions of your own.36-38

What is HER2-positive breast cancer?

What type of health care provider should I see if I think I might have HER2-positive breast cancer?

What are the stage and grade of my HER2-positive breast cancer?

What is my expected prognosis?

Has my cancer spread to locations outside my breast(s)?

What treatments do you recommend for me and why?

Is the goal of treatment to eliminate the cancer or to make me feel better?
How long will treatment take?

What side effects can I expect to feel from my treatment?

Will my sex life be affected by treatment? If so, for how long?

Will I be able to become pregnant after my treatment?

Could my cancer return after treatment?

How can I preserve my quality of life while undergoing treatment?

Can you give me more information about clinical trials?

What support services are available to me and my family?
Questions to Ask Your Health Care Provider (Continued)

Should other women in my family be tested for HER2-positive breast cancer? If so, how often?

Are there any brochures or other printed materials I can take home?

With whom may I speak about my financial and insurance concerns?

Questions of your own:
I AM AN ATHLETE, A COLLEAGUE, A NEIGHBOR AND A SURVIVOR.

Those who have gone through cancer are more than their diagnosis. At CURE®, we provide insight to everyday people whose lives have been touched by cancer, letting them know that they are not alone. We strive to give readers an identity that extends beyond their diagnosis. CURE® makes cancer understandable, and we aim to make life with cancer understandable.

A community of more than just patients. Join us. curetoday.com
Advanced Breast Cancer Community

advancedbreastcancercommunity.org

Advanced Breast Cancer Community offers printable tip sheets to help patients with breast cancer worldwide get the most out of their time with their health care provider. Based on their Count Us, Know Us, Join Us survey, the organization recognizes that breast cancer is a global experience and that women who have advanced breast cancer, regardless of where they live, want their disease to be better understood.

Resource Checklist

- Breast cancer information
- Printable tip sheets
- FAQs
- Emotional and financial support

Contact Info:

Email: info@advancedbreastcancercommunity.com

Alamo Breast Cancer Foundation

alamobreastcancer.org

Alamo Breast Cancer Foundation, a nonprofit organization based in San Antonio, Texas, was started to fight and end breast cancer. The organization assists patients, aids health professionals and provides education and community outreach. The foundation offers education for patients, information for survivors and support groups for those affected by breast cancer.

Resource Checklist

- Breast cancer education
- Survivor information
- Advocacy links
- Quarterly newsletter

Contact Info:

Address: P.O. Box 780067
San Antonio, TX 78278-0067

Email: Through website

Phone: 210-692-9535
Bright Pink

*brightpink.org*

When Lindsay Avner, the founder of Bright Pink, had a risk-reducing double mastectomy at age 23, she was at the time the youngest individual to do so. Bright Pink reaches thousands of lives daily through programs, resources and partnerships. The organization focuses on health and education, not cancer, to educate women on how to make informed decisions about preventive care.

**Resource Checklist**
- Peer-to-peer support programs
- Risk assessment tools
- Tips for a healthy lifestyle
- Materials for health care providers

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Breastcancer.org

*breastcancer.org*

Breastcancer.org is a nonprofit organization that offers a community and up-to-date information to help patients with breast cancer make the best decisions for their bodies. Made up of a passionate team of business development experts, medical experts, experienced writers, editors, designers and web producers, the organization provides accurate and encouraging information to patients and their families and caregivers.

**Resource Checklist**
- Breast cancer information
- Research news
- Podcasts
- Community boards

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**ADDRESS:**
120 E. Lancaster Ave.
Suite 201
Ardmore, PA 19003

**CONTACT INFO:**
Phone: 610-642-6550
HER2 Support
her2support.org

HER2 Support is a community for patients of breast cancer survivors who are HER2 positive. Patients can share their experiences with the disease to strengthen others and pass along their knowledge. Christine H. Druther founded the organization in 2001 with a promise to assist members by providing links to news and current research and promoting education.

Resource Checklist:
- HER2 breast cancer information
- Clinical trial search
- Financial and legal information
- Message board and support community

Cancer Support Community
cancersupportcommunity.org

The Cancer Support Community is one of the largest professionally led nonprofit networks of cancer support. The global organization has 175 locations that deliver support services to patients with cancer and a toll-free helpline for patients to receive educational resources. Cancer Support Community conducts research to learn about the emotional, psychological and financial implications that cancer can have on patients.

Resource Checklist:
- Breast cancer information
- Toll-free cancer support helpline
- Live webchat
- Free education tool
- Online blog
- Radio show
Living Beyond Breast Cancer

*lbbc.org*

Living Beyond Breast Cancer was founded in response to the lack of information for patients with breast cancer who had just received treatment. The organization allows higher-quality, easy-to-access information to reach people across the country and envisions a world where no patient who is affected by breast cancer feels uninformed or alone.

**Resource Checklist**
- Breast cancer helpline
- Webinars
- Conferences
- News and opinion pieces

**ADDRESS:**
40 Monument Road
Suite 104
Bala Cynwyd, PA 19004

**CONTACT INFO:**
Phone: 855-807-6386
Email: mail@lbbc.org

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Metastatic Breast Cancer Network

*mbcn.org*

Focusing on the needs of those with stage 4 breast cancer, the Metastatic Breast Cancer Network supports men and women who are affected by the disease. The network was founded in 2004 by Jane Soyer and Nina Schulman, who, after receiving a diagnosis of advanced breast cancer, felt isolated from other breast cancer support groups. The organization seeks to educate patients, strengthen their voices and advocate for more focused research.

**Resource Checklist**
- Breast cancer information
- Personal stories
- E-newsletters
- Fundraisers

**ADDRESS:**
65 W. 46th St.
Suite 712
New York, NY 10036

**CONTACT INFO:**
Phone: 888-500-0370
Email: mbcn@mbcn.org
National Breast Cancer Foundation Inc.

nationalbreastcancer.org

Started by breast cancer survivor Janelle Hail in 1991, National Breast Cancer Foundation Inc. educates women globally about breast cancer and early detection. Because breast cancer affects one in eight women in the United States and has no known cure, early detection is important for survival. The foundation offers free mammograms and other programs to help women across the United States fight breast cancer.

Resource Checklist

✓ National Mammography Program
✓ Educational resources
✓ Research funding
✓ Patient navigation programs

 ADDRESS:
2600 Network Blvd.
Suite 300
Frisco, TX 75034

CONTACT INFO:
Email: through website

National Coalition for Cancer Survivorship

canceradvocacy.org

The National Coalition for Cancer Survivorship advocates on behalf of patients with cancer and calls for change in policy regarding research, regulation and finances. The organization’s mission is to encourage quality cancer care for all by working with legislators on policy change and education. The coalition was started in 1986 by patients with cancer for patients with cancer.

Resource Checklist

✓ Public policy information
✓ Cancer advocacy
✓ Cancer survival toolbox
✓ Online blog

 ADDRESS:
8455 Colesville Road
Suite 930
Silver Spring, MD 20910

CONTACT INFO:
Phone: 877-622-7937
Email: info@canceradvocacy.org
Office on Women’s Health

[womenshealth.gov](http://womenshealth.gov)

The Office on Women’s Health — within the U.S. Department of Health and Human Services (HHS) — provides national leadership in advancing women’s health through public policy, research, service delivery and education. The office develops, stimulates and coordinates women’s health research, health care services, health professional education and public training across the agencies of the HHS. Its website, womenshealth.gov, covers more than 800 topics on women’s health, including reproductive health.

**Resource Checklist:**
- Breast cancer information
- Printable fact sheets
- Additional resources

Patient Advocate Foundation

[patientadvocate.org](http://patientadvocate.org)

The Patient Advocate Foundation is a national nonprofit organization that serves as an active liaison between patients and their insurer, employers and creditors to resolve diagnosis-related insurance, job retention and debt crisis issues through case managers, physicians and attorneys. The foundation seeks to safeguard patients through effective mediation to ensure access to care, maintenance of employment and preservation of financial stability.

**Resource Checklist:**
- Insurance and financial information
- Copay assistance
- Free webinars and information sessions

ADDRESS:

200 Independence Ave. SW
Room 712E
Washington, DC 20201

CONTACT INFO:

Health helpline: 800-994-9662
Phone: 202-690-7650

ADDRESS:

421 Butler Farm Road
Hampton, VA 23666

CONTACT INFO:

Phone: 800-532-5274
Email: help@patientadvocate.org
SHARE: Self-Help for Women with Breast or Ovarian Cancer
sharecancersupport.org

Focusing on communities that are medically underserved, SHARE is a nonprofit organization that nationally serves women with breast, ovarian or metastatic breast cancer. The organization offers support groups, clinical trial assistance, online communities and many other programs that are all free of charge. All services are offered in both English and Spanish.

Resource Checklist
✔ Breast cancer information
✔ National helpline
✔ Free webinars and online events
✔ Clinical trial matching service
✔ Patient support groups

Susan G. Komen
ww5.komen.org

Founded in the 1980s, Susan G. Komen helped launch the breast cancer movement. The organization has helped fund more than $988 million in research and $2.2 billion dollars in education. Susan G. Komen has a global reach that extends to more than 60 countries and offers safe, accurate and current online services to educate and assist patients with breast cancer.

Resource Checklist
✔ The Komen Breast Care Helpline
✔ Downloadable tools and resources
✔ National Treatment Assistance Program
✔ Financial assistance and support
Young Survival Coalition

youngsurvival.org

After learning they had breast cancer, three women under the age of 35 founded the Young Survival Coalition 20 years ago. The organization focuses on the issues surrounding young women with the diagnosis, a previously underrepresented group in breast cancer research. Offering many events and one-on-one support, the Young Survival Coalition is the go-to for young women with breast cancer.

Resource Checklist:

- Breast cancer information
- Online blog
- Online support
- Fundraiser events
- Volunteer opportunities

ADDRESS:
75 Broad St.
Suite 409
New York, NY 10004

CONTACT INFO:
Phone: 877-972-1011
## PATIENT EDUCATION RESOURCES

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REFERENCES


The information is designed to be a summary of information and not an exhaustive clinical review.

CURE Media Group, LLC was primarily responsible for selecting the content in this supplement.