



Understanding **HER2+** breast cancer

Finding out that you have HER2+ breast cancer can be overwhelming. With everything that you are going through, it may be difficult to absorb all of the information from your healthcare team. It is important to understand HER2+ breast cancer so that you can address the disease.

What is HER2+ breast cancer?

HER2 status is an important breast cancer characteristic. In HER2+ breast cancer, too much HER2 protein appears on the surface of the cancer cells. This is thought to cause cancer cells to grow and divide more quickly, which is why HER2+ breast cancer is aggressive.

In addition, the treatment of HER2+ breast cancer may be different from the treatment of other types of breast cancer. HER2+ breast cancers may benefit from **targeted biologic therapy** that is designed to block the effects of HER2. Herceptin is a targeted biologic therapy used to treat HER2+ breast cancer. See reverse for more information about targeted biologic therapy and treatment with Herceptin.

How will I know if I have HER2+ breast cancer?

To classify exactly what kind of breast cancer you have, your doctor may take a **biopsy**, which is a sample taken from your tumor either during surgery or using a needle. A laboratory then performs HER2 testing on the sample tissue.

There are tests available to determine HER2 status, including **Fluorescence In Situ Hybridization (FISH)** and **ImmunoHistoChemistry (IHC)**.

- A **FISH** test checks to see whether or not the cancer cells have a normal number of HER2 genes. Using a special microscope, a pathologist looks at cancer cells to see whether there are too many HER2 genes there, compared with some other normal genes
- An **IHC** test measures how much HER2 protein there is on the surface of the cancer cells. The test is scored on a scale of 0 to 3+
 - A patient who has a tumor with a score of 3+ is considered to have HER2+ breast cancer

Accurate testing is important. Sometimes 1 test may not be enough to determine with certainty whether your tumor is HER2+. Ask your doctor to discuss your HER2 test results, explain how your tumor's HER2 status was determined, and let you know whether another test may be necessary.

What are the potential treatment options for HER2+ breast cancer?

Your doctor will consider the characteristics and stage of your breast cancer (how much the cancer has grown and how far it has spread beyond the breast) to select an appropriate treatment plan for you. This section describes some of the options that may be included in your doctor's recommended treatment plan.

Most women with breast cancer will have surgery to remove as much of the cancer as possible. The surgery will be a **lumpectomy** or a **mastectomy**. A lumpectomy, or breast-conserving surgery, is a procedure to remove only the tumor plus some normal tissue around it. A mastectomy is surgery to remove the entire breast.

Please see reverse for information about who Herceptin is for and important safety information you should know about Herceptin. Please see accompanying full Prescribing Information for **Boxed WARNINGS** and additional important safety information.



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In addition, your treatment may include:

- **Radiation therapy**—Treatment with high-energy rays aimed at the area around the tumor
- **Chemotherapy**—A drug that kills cancer cells
- **Hormonal therapy**—A drug used to treat **hormone-receptor-positive** breast cancer (cancer that may grow due to estrogen and/or progesterone in the body) by reducing the amount of estrogen in the body or blocking the effect of estrogen
- **Monoclonal antibodies** (sometimes called **targeted biologic therapy**)—Antibodies are part of the body's normal defense against bacteria, viruses, and abnormal cells, such as cancer cells. Monoclonal antibodies are produced by cells grown in a laboratory. Monoclonal antibodies are generally a more targeted therapy than chemotherapy.

What is Herceptin?

Herceptin is a monoclonal antibody used to treat HER2+ breast cancer. It is not a chemotherapy or a hormonal therapy. Herceptin is designed to target HER2+ cancer cells. Large clinical trials have shown that Herceptin lowered the risk of HER2+ breast cancer returning when it was given for the **adjuvant** treatment (after surgery to stop cancer from returning) of HER2+ breast cancer. In other clinical trials, Herceptin was proven to help women with HER2+ **metastatic** breast cancer (cancer that has spread elsewhere in the body) live longer.

Where can I find more information about breast cancer?

You have a dedicated team of healthcare professionals that can give you information throughout the course of your treatment. Ask your doctor or nurse any questions you have about your cancer or your treatment plan. In addition, you can find information about HER2+ breast cancer and Herceptin on www.herceptin.com.

Who is Herceptin for?

Herceptin is approved for the adjuvant treatment of HER2-overexpressing, node-positive or node-negative (ER/PR-negative or with one high-risk feature) breast cancer. Herceptin can be used several different ways:

- As part of a treatment regimen including doxorubicin, cyclophosphamide, and either paclitaxel or docetaxel
- With docetaxel and carboplatin
- As a single agent following multi-modality anthracycline-based therapy

Herceptin in combination with paclitaxel is approved for first-line treatment of HER2-overexpressing metastatic breast cancer. Herceptin as a single agent is approved for treatment of HER2-overexpressing breast cancer in patients who have received one or more chemotherapy regimens for metastatic disease.

What important safety information should I know about Herceptin?

Herceptin treatment can result in heart problems, including those without symptoms (reduced heart function) and those with symptoms (congestive heart failure). Some patients have had serious infusion reactions and lung problems; fatal infusion reactions have been reported. Worsening of low white blood cell counts associated with chemotherapy has also occurred. The most common side effects associated with Herceptin were fever, nausea, vomiting, infusion reactions, diarrhea, infections, increased cough, headache, fatigue, shortness of breath, rash, low white and red blood cells, and muscle pain.

Because everyone is different, it is not possible to predict what side effects any one person will have. If you have questions or concerns about side effects, talk to your doctor.

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www.herceptin.com

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