

Trastuzumab (Herceptin)

This booklet explains what trastuzumab is, how it works, when it may be given and possible side effects.

Trastuzumab is the generic (non-branded) name of the drug, and is how it is referred to in this booklet. Its brand name is Herceptin.

What is trastuzumab?

Trastuzumab belongs to a group of drugs called targeted or biological therapies.

How does it work?

Targeted therapies block the growth and spread of cancer. They target and interfere with processes in the cells that cause cancer to grow.

Some breast cancer cells have a higher than normal level (known as overexpression) of a protein called HER2 (human epidermal growth factor receptor 2) on their surface, which stimulates them to grow. Around 15–20% of invasive breast cancers have this and are called HER2 positive. These cancers tend to grow and spread faster than HER2 negative breast cancers.

Trastuzumab works by attaching itself to the HER2 proteins (also known as receptors) so that the cancer cells are no longer stimulated to grow. It also helps the body's immune system destroy breast cancer cells.

Who might be offered trastuzumab?

Only people with HER2 positive breast cancer will benefit from having trastuzumab. If your cancer is HER2 negative, then trastuzumab will not be of benefit to you.

Trastuzumab is given to people with primary breast cancer after surgery and chemotherapy (and sometimes alongside chemotherapy) to reduce the chances of the breast cancer coming back or spreading. This is known as adjuvant treatment. Sometimes, chemotherapy and trastuzumab are given before surgery. This is known as neo-adjuvant treatment. If you're offered neo-adjuvant chemotherapy and trastuzumab your specialist team will explain why.

Trastuzumab is also given to people with secondary or locally advanced breast cancer (breast cancer that has spread to other parts of the body or that has come back in the same site and/or the surrounding area) either on its own or alongside chemotherapy.

Trastuzumab is not usually given during pregnancy and women are advised not to become pregnant within six months of the last dose. Breastfeeding is also not recommended while having trastuzumab, or within six months of the last dose.

How do I know if my breast cancer is HER2 positive or HER2 negative?

All invasive breast cancers are tested for HER2 levels. It's done in a hospital laboratory on a sample of breast cancer tissue removed during a biopsy or surgery. The results are usually available between one and three weeks later. Outside of a clinical trial, HER2 testing is normally only done on invasive breast cancer, so this is unlikely to be mentioned if you have ductal carcinoma in situ (DCIS).

There are various tests to measure HER2 levels. The three most commonly used tests are IHC (immunohistochemistry), FISH (fluorescent in situ hybridisation) and CISH (chromogenic in situ hybridisation).

IHC is usually done first. It involves a special staining process performed on a sample of breast cancer tissue. It's reported as a score ranging from 0–3. A score of 0 or 1+ means the breast cancer is HER2 negative. A score of 2+ is borderline and a score of 3+ means the breast cancer is HER2 positive.

Breast cancers with a borderline result (2+) should be re-tested with FISH or CISH to determine if they are truly HER2 positive. These are more specialised tests and are reported as positive or negative.

How is trastuzumab given?

You'll have your treatment as an outpatient, most commonly once every three weeks.

Trastuzumab can be given by intravenous infusion (a drip into a vein in the arm or hand) or subcutaneous injection (into the fatty tissue under the skin, usually the thigh). The first infusion takes 90 minutes. Subsequent doses can be given over 30 minutes. The injection takes around two to five minutes.

You'll be asked to wait for a couple of hours (six hours on your first dose) after your treatment to ensure you're not feeling unwell before leaving the hospital.

How long will I have trastuzumab for?

If you're having trastuzumab to treat primary breast cancer it will usually be given for one year.

If you're having trastuzumab to treat secondary breast cancer it can be given for as long as it's keeping the cancer under control.

What happens if I miss a dose?

If you're having trastuzumab over many months you may want to miss one treatment, for example to take a holiday. You should discuss it with your specialist team beforehand if you want to miss a treatment.

What are the side effects of trastuzumab?

Like any drug, trastuzumab can cause side effects. Everyone reacts differently to drugs and some people experience more side effects than others. Side effects from trastuzumab are more likely with the first one or two treatments and in most cases reduce over time. If you have any questions about side effects, regardless of whether they are listed below, talk to your specialist team.

If you're being given chemotherapy and trastuzumab at the same time you may have other side effects from the chemotherapy.

Common side effects

Flu-like symptoms

Fever, chills and mild pain in some parts of the body can occur during or shortly after the treatment. These are more common the first time you have trastuzumab and don't usually last long. Taking pain relief can help.

Nausea (feeling sick)

This is usually mild and doesn't last long. Anti-sickness drugs can be prescribed to relieve it.

Diarrhoea

You may have mild diarrhoea. Your specialist team or GP (local doctor) can prescribe drugs to help control this.

Less common side effects

You may have other side effects after the first treatment including headaches, dizziness, joint and muscle pain, rash, vomiting or breathlessness. These are often mild and don't usually happen with subsequent treatments.

Rare side effects

Effects on the heart

There is a small chance of developing heart problems such as palpitations while having trastuzumab. Tests to check your heart function, such as an echocardiogram or multiple-gated acquisition (MUGA) scan, are usually carried out before treatment starts and every three to four months during treatment.

Heart problems are more likely when trastuzumab is given at the same time as chemotherapy, especially with a group of drugs called anthracyclines, or if you already have heart problems. Only a small number of people having trastuzumab develop heart problems and they usually reverse once treatment has finished. If they do occur, you'll probably need treatment for them and occasionally the trastuzumab and/or chemotherapy may need to be stopped temporarily.

If you already have significant heart or blood pressure problems, you may be advised not to have trastuzumab.

Contraception

Women who are still having periods, or whose periods have stopped as a result of having chemotherapy (which may be temporary), should use a barrier method of contraception such as condoms during treatment with trastuzumab, and for at least six months afterwards because it may have a harmful effect on a developing baby.

Helping you face breast cancer

Treatments for breast cancer can be complex and if you're wondering where to turn for support in making treatment decisions or coping with side effects, we can help with practical and emotional support.

Ask us

Our free Helpline is answered by specialist nurses and trained staff with personal experience of breast cancer. They understand your issues and can answer questions. Or you can Ask the Nurse by email on our website.

Free Helpline **0808 800 6000** (Text Relay 18001)
Monday–Friday 9am–5pm Saturday 10am–2pm
www.breastcancercare.org.uk/ATN

Talk to someone who understands

Our Someone Like Me service puts you in contact by phone or email with someone else who's had breast cancer and who's been trained to help.

Online, you can chat to other people going through breast cancer on our professionally moderated discussion Forum or join a free, weekly Live Chat session.

In your area

We provide a variety of services in person across the UK, including:

HeadStrong prepares you for the possibility of losing your hair because of cancer treatment. In a private meeting, trained volunteers talk with you about how to look after your scalp before, during and after treatment. They'll also share ideas on how to make the most of scarves, hats and other headwear.

Moving Forward Information Sessions and longer courses on adjusting to life after treatment. Both have expert speakers and offer the chance to talk to other people in the same situation as you.

Find out about all our services for people affected by breast cancer at **www.breastcancercare.org.uk/services** or phone the Helpline. We can help you decide which of our services are right for you.

We're here for you: help us to be there for other people too

If you found this booklet helpful, please use this form to send us a donation. Our information resources and other services are only free because of support from people such as you.

We want to be there for every person facing the emotional and physical trauma of a breast cancer diagnosis. Donate today and together we can ensure that everyone affected by breast cancer has someone to turn to.

Donate by post

Please accept my donation of **£10/£20/my own choice of £**

I enclose a cheque/PO/CAF voucher made payable to
Breast Cancer Care

Donate online

You can give using a debit or credit card at
www.breastcancercare.org.uk/donate

My details

Name _____

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Email address _____

We might occasionally want to send you more information about our services and activities

- Please tick if you're happy to receive email from us
- Please tick if you don't want to receive post from us

We won't pass on your details to any other organisation or third parties.

Please return this form to Breast Cancer Care, Freepost RRRKZ-ARZY-YCKG,
5-13 Great Suffolk Street, London SE1 0NS



About this booklet

Trastuzumab (Herceptin) was written by Breast Cancer Care's clinical specialists, and reviewed by healthcare professionals and people affected by breast cancer.



**For a full list of the sources
we used to research it:**

Phone 0845 092 0808

Email publications@breastcancercare.org.uk



You can order or download more copies from
www.breastcancercare.org.uk/publications



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the breast cancer
support charity

Breast Cancer Care is the only UK-wide charity providing specialist support and tailored information for anyone affected by breast cancer.

Our clinical expertise and emotional support network help thousands of people find a way to live with, through and beyond breast cancer.

Visit www.breastcancercare.org.uk or call our free Helpline on **0808 800 6000** (Text Relay 18001).

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