

# PHESGO (PERTUZUMAB AND TRASTUZUMAB)

BREAST  
CANCER  
NOW The research &  
support charity

---

**We're here**

---

## About this booklet

If you've been offered Phesgo as part of your breast cancer treatment, it's natural to have questions and concerns about how it may affect you.

This booklet explains what Phesgo is, how and when you may have it, and the side effects you may have.

You may find it helpful to read this booklet alongside our **Chemotherapy for breast cancer** booklet.

## What is Phesgo (pertuzumab and trastuzumab)?

Pertuzumab and trastuzumab are 2 targeted therapy drugs.

Targeted therapy is the name given to a group of drugs that block and stop the growth of cancer. They target and interfere with processes in the cells that help cancer grow.

When pertuzumab and trastuzumab are given together, you may hear them called by their brand name Phesgo.

## Who might be offered Phesgo?

Phesgo can be used to treat HER2-positive:

- Primary breast cancer (breast cancer that has not spread beyond the breast or the lymph nodes under the arm)
- Secondary breast cancer (breast cancer that has spread to another part of the body, such as the bones, lungs, liver or brain)
- Locally advanced breast cancer that cannot be removed by surgery (breast cancer that has spread to the chest wall or skin of the breast, or the lymph nodes around the chest, neck and under the arm or breastbone, but has not spread to other areas of the body)

You will only be offered Phesgo if your breast cancer is HER2-positive.

If your breast cancer is HER2-negative, Phesgo will not be of any benefit to you.

## What is HER2?

Some breast cancer cells have a higher-than-normal level of a protein called HER2 on their surface, which makes them grow more quickly.

This is known as HER2-positive breast cancer.

All invasive breast cancers (breast cancer that has the potential to spread to other parts of the body) are tested for HER2 levels. This is done in a hospital laboratory on a sample of breast cancer tissue removed during a biopsy or surgery.

There are various tests to measure HER2 levels. A test called IHC (immunohistochemistry) is usually done first. It involves a special staining process performed on a sample of breast cancer tissue.

It's reported as a score of 0 to 3+:

- 0 or 1+ means the breast cancer is HER2-negative
- 2+ is borderline
- 3+ means the breast cancer is HER2-positive

Breast cancers with a borderline result (2+) should be retested using more specialised techniques. These tests will give a result of HER2-positive, HER2-low or HER2-negative.

Speak to your treatment team for more information.

## Before you start Phesgo

Before starting your treatment, a member of your treatment team will discuss how and when you'll have Phesgo and how side effects can be managed.

You'll have blood tests and your height and weight will be measured.

You will also have tests to check your heart function, such as:

- An ECG (electrocardiogram), a simple test that checks your heart rhythm
- An echocardiogram, an ultrasound scan of the heart

This is because there is a chance Phesgo can cause changes to the heart muscle. You will have an echocardiogram every 3 months during your treatment with Phesgo to monitor your heart function.

## How Phesgo is given

Phesgo is usually given as an injection under the skin. You will usually have it every 3 weeks.

The first injection will take around 8 minutes. This is called a loading dose.

All other injections of Phesgo will take around 5 minutes.

You will have the injection in your thigh. Your treatment team may vary which thigh to inject.

## **Primary and locally advanced breast cancer**

You will have Phesgo injections alongside chemotherapy to begin with. You will then continue to have Phesgo injections on their own.

You may have Phesgo for up to 1 year. However, your treatment team will discuss this with you in more detail.

## **Secondary breast cancer**

If you have secondary breast cancer you will usually have Phesgo injections with chemotherapy to begin with. You will then continue to have Phesgo injections once you have finished your chemotherapy cycles.

You will have Phesgo injections for as long as your treatment team feels you're benefiting from the drug, and any side effects are manageable.

## Side effects of Phesgo

Like any treatment, Phesgo can cause side effects. Everyone reacts differently to drugs and some people have more side effects than others. These side effects can usually be managed and those described here will not affect everyone.

As Phesgo can be given in addition to chemotherapy, it's sometimes difficult to know which side effects are being caused by which treatment.

You should be given a 24-hour contact number or told who to contact if you feel unwell at any time during your treatment, including overnight or at the weekends. If you're worried about any side effects, regardless of whether they're listed here, talk to your chemotherapy nurse or treatment team.

### Common side effects

#### Effects on the blood

Phesgo given with chemotherapy can temporarily affect the number of blood cells in the body. Blood is made up of red cells, white cells and platelets.

You'll have regular blood tests. If the number of blood cells is too low, your next cycle of treatment may be delayed or the dose of reduced.

Your treatment team may change the dose of a drug to suit you and help manage its side effects. This may help you stay on the treatment for longer.

## **Risk of infection**

Not having enough white blood cells can increase your risk of getting an infection.

Your treatment team may give you advice on reporting signs of an infection. But generally you should contact your hospital immediately if you have any of the following:

- A high temperature (over 37.5°C) or low temperature (under 36°C)
- Suddenly feeling unwell, even with a normal temperature
- Symptoms of an infection, such as a sore throat, cough, needing to pee often or feeling cold or shivery, even if you do not have a high temperature

Before starting Phesgo you should be given a 24-hour contact number or told who to contact if you feel unwell at any time during your treatment, including overnight or at the weekends.

You may need treatment if you get an infection.

Sometimes your treatment team may recommend injections of drugs called growth factors. This helps the body make more white blood cells to reduce your risk of infection.

## **Anaemia**

Having too few red blood cells is called anaemia. If you feel breathless, dizzy or particularly tired, let your treatment team know.

## **Bruising and bleeding**

Phesgo can reduce the number of platelets. Platelets help the blood to clot.

If your platelets are low, you may:

- Bruise more easily
- Have nosebleeds
- Notice your gums may bleed when you brush your teeth
- Take longer to stop bleeding if you cut yourself

Tell your treatment team if you have any of these symptoms.

## Heart changes

Phesgo may weaken the heart muscle. This is usually temporary, but for a small number of people it may be permanent.

Contact your treatment team if you develop:

- Breathlessness
- Chest pain
- Changes to your heartbeat, such as it beats very quickly, flutters or feels like you've missed a heartbeat
- Swollen ankles

As mentioned above you will continue to have heart function tests regularly during treatment.

## Diarrhoea or constipation

You may have diarrhoea or constipation. Your treatment team or GP can prescribe medicine to help control it.

Contact your team if you have diarrhoea 3 or more times in 24 hours.

## Damage to the lungs

Phesgo can cause interstitial lung disease (ILD). ILD is inflammation in your lungs, which can lead to scarring.

Contact your treatment team straight away if you have:

- Shortness of breath
- A cough, with or without a high temperature
- Any new or worsening breathing problems, such as chest tightness or wheezing

These symptoms could have a number of causes including side effects of treatment or a lung infection. It's important to let your treatment team know so that they can find out the cause. You may need a chest x-ray or CT scan to check what's causing your symptoms. If Phesgo has caused inflammation to your lungs, you may need to stop treatment temporarily to prevent further damage. You may have steroids to treat the inflammation.



## Extreme tiredness (cancer-related fatigue)

Fatigue is extreme tiredness or exhaustion that doesn't go away with rest or sleep. It's a common side effect of breast cancer and its treatments.

It may last for weeks or months after your treatment has finished.

If you think you have fatigue, tell your GP or treatment team. They can assess you and offer advice on how to manage your energy levels.

## Nausea and vomiting

You may feel sick (nausea) and think you might be sick (vomit), but most people will not actually be sick.

Your treatment team will prescribe you anti-sickness drugs to take home to reduce nausea or stop it happening. If you continue to feel sick or vomit, tell your treatment team as they may be able to change your anti-sickness drugs.

## Hand-foot syndrome (palmar-plantar erythrodysesthesia)

You may develop soreness or redness on the palms of your hands and soles of your feet. This is called palmar-plantar or hand-foot syndrome.

Redness can be harder to see on black or brown skin.

Your treatment team or GP can prescribe creams or medication to treat hand-foot syndrome. You can find out more about hand-foot-syndrome, including things to avoid, on our website [breastcancernow.org](https://breastcancernow.org)

## Loss of appetite

You may lose your appetite.

Eating small frequent meals or snacks can help keep up your food intake.

If you're concerned about how much you're eating and drinking, ask your GP or specialist about being referred to a dietitian.

Find out more about diet and breast cancer treatment in our **Diet and breast cancer** booklet.

## Sore mouth

Looking after your mouth, including your teeth and gums, is very important during treatment.

You may be given mouthwash to try to reduce soreness and prevent mouth ulcers developing. It's a good idea to use a small, soft toothbrush during this time.

See your dentist for a check-up before treatment with chemotherapy begins. Avoid dental work during chemotherapy if possible.

If you do need to have dental work during treatment, talk with your treatment team about the best time to have this.

If you're having difficulty registering with a dentist, let your treatment team know.

## Numbness and tingling in the hands or feet (peripheral neuropathy)

You may have pain, numbness or tingling in your hands and feet after you have your treatment. This is due to the effect of Phesgo on the nerves and is known as peripheral neuropathy.

Other symptoms of peripheral neuropathy can include difficulty doing "fiddly" tasks like doing up buttons, a feeling of warmth or cold in your hands and feet, or loss of balance.

Symptoms are often mild to start with and can gradually get worse.

For some people the symptoms stay mild and go away soon after treatment stops. However, for most people, the symptoms will gradually improve over the weeks and months after treatment has finished.

Symptoms may take longer to improve and, in some cases, may not go away completely.

If you have symptoms of peripheral neuropathy, tell your treatment team so they can monitor them.

### Joint or muscle pain

Sometimes you may have joint, jaw or muscle pain. Let your treatment team know if this happens. They may prescribe medication for pain relief.

### Hair loss

Phesgo may cause hair loss, especially if you're having it alongside chemotherapy.

You can find out more about hair loss in our **Breast cancer and hair loss** booklet.

### Other common side effects

Other common side effects of Phesgo include:

- Difficulty sleeping
- Inflammation around the injection site
- Taste changes
- Headaches
- Indigestion
- Cold and flu-like symptoms
- Skin rash and nail problems
- Eye problems
- Shaky hands

If you're worried about any side effects, regardless of whether they're listed here, talk to your chemotherapy nurse or treatment team.

## Less common side effects

Less common side effects of Phesgo include:

- Feeling anxious or depressed
- Swollen veins near your back passage (piles or haemorrhoids). This can be painful when you poo, so let your team know if you have this
- Dry mouth
- Changes to the way your kidneys work – you'll have regular blood tests to check this
- Swollen or sore breasts
- Liver problems that are mild – you might have tummy pain, or yellowing of the skin or whites of the eyes (jaundice), but this is rare
- Sweating more than normal for you

## Rare side effects

### Cytokine release syndrome

This is where the drugs stimulate the immune system to make large amounts of a group of proteins called cytokines.

Symptoms include:

- High temperature
- Chills
- Headache
- Difficulty breathing
- Dizziness

## Other important information

### Blood clots

People with breast cancer have a higher risk of blood clots such as a deep vein thrombosis (DVT).

If you have a DVT, there's a risk part of the blood clot could break away and travel to the lung. This is known as a pulmonary embolism (PE).

Blood clots can be life-threatening and should be treated quickly.

Contact your treatment team or go to your local A&E department straight away if you have any of the following symptoms:

- Pain in your arm or leg
- Redness/discolouration of the skin of the arm or leg
- Heat and swelling of the arm or leg
- Swelling, redness or tenderness where a central line is inserted to give chemotherapy, for example in the arm, chest area or up into the neck
- Shortness of breath that comes on suddenly
- Pain or tightness in the chest
- Unexplained cough or coughing up blood

Some symptoms may look different on different skin tones.

## **Allergic reaction**

Having an allergic reaction to Phesgo is rare.

If you do have an allergic reaction, it's more likely to happen within the first few minutes of your first or second treatment.

You'll be monitored closely so any reaction can be dealt with immediately.

If you have a severe reaction, treatment will be stopped immediately.

If you have a less severe reaction, you may need to take medication before future treatments to reduce the risk of further reactions.

Contact your hospital immediately if you notice any of the following symptoms:

- Itchy red or discoloured bumps on your skin (these may be harder to see on black or brown skin)
- Swelling in your lips, tongue or throat
- Breathlessness, wheezing, a bad cough or sudden difficulty breathing
- Tight chest or chest pain

## **Sex, contraception and pregnancy**

You can still have sex during treatment with chemotherapy or Phesgo. It's thought chemotherapy drugs cannot pass into vaginal fluids or semen, but this cannot be completely ruled out.

Most treatment teams will advise using barrier methods of contraception, such as condoms, during treatment with chemotherapy or Phesgo.

You're advised not to become pregnant while having chemotherapy or Phesgo, or for 7 months after your last dose. This is because chemotherapy and Phesgo can harm a developing baby.

If you have not been through the menopause, talk to your treatment team about the most suitable method of contraception for you. It's still possible to become pregnant even if your periods are irregular or have stopped.

## Fertility

If you were diagnosed with breast cancer before you started or completed a family, you may be concerned about your fertility. Depending on your diagnosis and treatment, you may be advised not to get pregnant.

You can talk to your treatment team about any possible fertility preservation options before starting treatment. For more information, please see our **Fertility, pregnancy and breast cancer** booklet.

## Breastfeeding

You'll be advised not to breastfeed while having Phesgo, or within 7 months of your last dose. This is because there is a risk the drugs could be passed on through breast milk.

## Travel and vaccinations

If you're planning a holiday or need to travel overseas, check with your treatment team first.

You shouldn't have any live vaccines while you're having treatment. Live vaccines include:

- Mumps
- Measles
- Rubella (German measles)
- Polio
- BCG (tuberculosis)
- Yellow fever

Live vaccines contain a small amount of live virus or bacteria. If you have a weakened immune system, which you may do during treatment, they could be harmful.

It's safe to have these vaccinations 6 months after your treatment finishes. Talk to your GP or treatment team before having any vaccinations.

If anyone you have close contact with needs to have a live vaccine, speak to your treatment team or GP. They can advise what precautions you may need to take depending on the vaccination.

### **Flu vaccination**

Anyone at risk of a weakened immune system, and therefore more prone to infection, should have the flu vaccine. This includes people due to have, or already having, treatment for breast cancer.

The flu vaccine is not a live vaccine so does not contain any active viruses.

Talk to your chemotherapy team or breast care nurse about the best time to have your flu jab.

### **Nasal flu vaccine for children**

The nasal flu vaccine offered to children is a live vaccine. Let your treatment team know if someone you live with needs the nasal flu vaccine.

### **COVID-19 vaccination**

If you're having chemotherapy or targeted therapies, speak to your treatment team about the best time to have a COVID-19 vaccination.



## Further support

Your treatment team and breast care nurse can help with any questions you have.

You can also call our free helpline on **0808 800 6000** for information and support. Or visit **[breastcancernow.org](https://breastcancernow.org)** to see the support services we offer.

On our online forum **[forum.breastcancernow.org](https://forum.breastcancernow.org)**, you can find people going through treatment at the same time as you on the monthly chemotherapy threads.

We're Breast Cancer Now, the research and support charity. However you're experiencing breast cancer, we're here.

### **Life-changing support**

Whoever you are, and whatever your experience of breast cancer, our free services are here. Whether you're worried about breast cancer, dealing with a diagnosis, working out life with or beyond treatment – or someone you love is.

### **World-class research**

We support over 290 of the brightest minds in breast cancer research. They're discovering how to prevent breast cancer, live well with the disease, and save lives. Every day, they get closer to the next breakthrough.

### **Change-making campaigns**

We fight for the best possible treatment, services and care for everyone affected by breast cancer, alongside thousands of dedicated campaigners.

### **Could you help?**

We don't get any government or NHS funding for our support services or health information. So, we rely on donations and gifts in wills to make our vital work happen. If you'd like to support us, go to [breastcancernow.org/give](https://breastcancernow.org/give)

# ABOUT THIS BOOKLET

Phesgo (pertuzumab and trastuzumab) was written by Breast Cancer Now'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:  
Email [health-info@breastcancernow.org](mailto:health-info@breastcancernow.org)



You can order or download more copies from  
[breastcancernow.org/publications](https://breastcancernow.org/publications)



We welcome your feedback on this publication:  
[health-info@breastcancernow.org](mailto:health-info@breastcancernow.org)



For a large print, Braille or audio CD version:  
Email [health-info@breastcancernow.org](mailto:health-info@breastcancernow.org)

## Medical disclaimer

We make every effort to ensure that our health information is accurate and up to date, but it doesn't replace the information and support from professionals in your healthcare team. So far as is permitted by law, Breast Cancer Now doesn't accept liability in relation to the use of any information contained in this publication, or third-party information included or referred to in it.

## We're here

### Information you can trust, support you can count on

Whatever breast cancer brings, we're here for you.

Whether you're looking for information about breast cancer or want to speak to someone who understands, you can rely on us.

Call **0808 800 6000** to talk things through with our helpline nurses.

Visit **[breastcancernow.org](https://breastcancernow.org)** for reliable breast cancer information.

#### Breast Cancer Now

6th Floor  
The White Chapel Building  
10 Whitechapel High Street  
London E1 8QS



Patient Information Forum

Breast Cancer Now is a company limited by guarantee registered in England (9347608) and a charity registered in England and Wales (1160558), Scotland (SC045584) and Isle of Man (1200). Registered Office: 6th Floor, The White Chapel Building, 10 Whitechapel High Street, London E1 8QS.