

Palbociclib (Ibrance)

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1. What is palbociclib?

Palbociclib is a targeted or biological therapy drug.

When used to treat breast cancer, palbociclib is taken alongside hormone (endocrine) therapy.

Palbociclib is the drug's non-branded name. Its brand name is Ibrance.

It belongs to a group of drugs called CDK (cyclin dependent kinase) inhibitors. These drugs block the action of kinase, a protein that helps cells to grow and divide. By doing so, they stop the growth and spread of cancer.

2. Who might be offered palbociclib?

Palbociclib is used to treat breast cancer that's oestrogen receptor positive and HER2 negative.

You may be offered palbociclib if your breast cancer has:

- Spread to the tissues and lymph nodes around the chest, neck and under the breastbone (locally advanced breast cancer)
- Spread to another part of the body such as the bones, lungs, liver or brain (secondary breast cancer)

Palbociclib is not currently given for early (primary) breast cancer, though clinical trials are looking at whether this may be useful.

Find out more about availability.

3. Taking palbociclib

Palbociclib is a capsule. You must:

- Take it at the same time each day with food, preferably with a meal
- Swallow it whole with water (do not crush, chew or dissolve it)

The usual starting dose is 125mg.

Palbociclib and hormone therapy

In the UK palbociclib is always given alongside a hormone therapy drug.

You may have palbociclib with:

- An aromatase inhibitor (anastrozole, exemestane or letrozole) if you have not already had hormone therapy for locally advanced or secondary breast cancer
- Fulvestrant if you have had hormone therapy for locally advanced or secondary breast cancer

Some people who had hormone therapy for primary breast cancer, and who now have locally advanced or secondary breast cancer, may be offered palbociclib with an aromatase inhibitor or fulvestrant. This will depend on their circumstances.

Taking palbociclib and an aromatase inhibitor

Palbociclib is taken as a capsule once a day for 21 days followed by a seven-day break. This is known as a cycle.

The cycle is then repeated.

An aromatase inhibitor drug is taken once a day continually throughout the cycle.

Taking palbociclib and fulvestrant

Palbociclib is taken as a capsule once a day for 21 days followed by a seven-day break. This is known as a cycle.

The cycle is then repeated.

Fulvestrant (500mg) is given in two injections, one into the muscle (intramuscular injections) of each buttock. They are usually given every 14 days for the first three doses, then every 28 days for as long as you are having palbociclib.

If you have not been through the menopause

Aromatase inhibitors and fulvestrant are suitable for women who have been through the menopause (when your periods stop).

If you have not been through the menopause, you will also have treatment to stop your ovaries producing oestrogen, either temporarily or permanently. This is known as ovarian suppression.

What if I miss a dose?

If you miss a dose of palbociclib or you are sick (vomit) soon after taking it, do not take an extra dose to make up for the one you missed.

Keep to your usual amount and speak to someone in your treatment team.

How long will I take palbociclib for?

You'll have palbociclib alongside hormone therapy for as long as your treatment team feels you're benefiting from the treatment and any side effects are manageable.

Medicines and food to avoid when taking palbociclib

When taking palbociclib:

- Do not take anything that contains St John's Wort
- Do not eat grapefruit or drink grapefruit juice

Some drugs should not be taken with palbociclib. These include some commonly prescribed antibiotics, antifungal and anti-epileptic drugs.

Tell your specialist about any prescribed or over-the-counter medicines you are taking.

If a healthcare professional, such as your GP or dentist, prescribes you a new drug, tell them you're taking palbociclib.

Always ask your treatment team before taking any herbal medicines or supplements.

Palbociclib contains lactose. If you know you are lactose intolerant discuss this with your treatment team.

4. Side effects of Palbociclib

Like any drug, palbociclib can cause side effects. Everyone reacts differently to drugs and some people have more side effects than others.

You'll have regular hospital appointments with your treatment team to check whether you're experiencing side effects.

It can be helpful to keep a diary of how you feel while taking palbociclib to monitor any side effects.

Side effects can usually be controlled and those described here will not affect everyone.

Because it's given alongside hormone therapy, you may have side effects from that drug as well.

If you're concerned about any side effects, regardless of whether they're listed here, tell your treatment team.

Common side effects

Effects on the blood

Palbociclib can temporarily affect the number of healthy blood cells in the body.

You'll have regular blood tests before and throughout treatment to check your blood count.

It's recommended blood tests are done before you start treatment, every two weeks for the first two cycles of treatment, then every four weeks before each cycle.

Risk of infection

Not having enough white blood cells (low white blood cell count) can increase the risk of getting an infection.

Low white blood cell counts are very common when taking palbociclib. The number of white blood cells usually returns to normal before your next cycle of treatment.

When the white blood cells fall below a certain level, it's known as neutropenia. Having a high temperature with neutropenia (known as febrile neutropenia) is less common and occurs much less often than with chemotherapy.

Contact your hospital immediately if you:

- Have a high temperature (over 37.5°C) or low temperature (under 36°C), or whatever your treatment team has advised
- Suddenly feel unwell, even with a normal temperature
- Have any symptoms of an infection, for example a sore throat, a cough, a need to pass urine frequently or feeling cold or shivery

Before you start palbociclib your treatment team should give you a 24-hour contact number or tell you where to get emergency care.

If you develop low white blood cell counts during treatment with palbociclib, your doctor may decrease the dose, delay your next cycle of treatment or stop your treatment.

Anaemia

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

Bruising and bleeding

Palbociclib can reduce the number of platelets, which help the blood to clot.

You may bruise more easily, have nosebleeds or your gums may bleed when you brush your teeth. Tell your treatment team if you have any of these symptoms.

Liver changes

Palbociclib can affect how the liver works.

You'll have blood tests to check how your liver is working while you're having treatment.

Treatment may need to be delayed or the dose reduced if the blood tests show any problems with your liver.

If you have any of the following symptoms contact your treatment team straight away:

- Yellowing of your skin or the whites of your eyes (jaundice)
- Pain on your right side under the ribs
- Bleeding or bruising more easily than normal
- Feeling more tired
- Passing dark brown urine

Cancer related fatigue (extreme tiredness)

Cancer-related fatigue is extreme tiredness that doesn't go away with rest or sleep.

It's a very common side effect of secondary breast cancer and its treatment and may affect you physically and emotionally.

It has many causes, from psychological factors such as the stress of coping with the diagnosis, to physical ones such as the side effects of treatment or growth and spread of the cancer.

Fatigue may have a significant effect on your ability to cope with your cancer and its treatment. It can also affect your everyday activities and quality of life.

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.

Find out more about [managing fatigue](#).

Sore mouth

Your mouth may become sore or dry and you may get ulcers.

You may be given mouthwash to reduce soreness of the mouth and gums and to try to stop mouth ulcers developing.

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

It's advisable to see your dentist for a check-up before your treatment begins. Check with your treatment team before having any dental work done.

Nausea and vomiting

You may feel sick (nausea) or be sick (vomit). Although not usually needed, anti-sickness drugs can be prescribed to help with this.

Loss of appetite

You may not feel like eating, especially if you feel sick. It might help to eat small meals regularly and drink plenty of liquids.

Diarrhoea and constipation

Tell your specialist or GP if you have diarrhoea or constipation as they can prescribe drugs to help.

Contact your treatment team if you have four or more episodes of diarrhoea within a 24-hour period.

Drink plenty of fluids to avoid getting dehydrated.

Rash

This can be uncomfortable, but regularly using a moisturiser and a high-factor sunscreen when out in the sun may help.

Your treatment team may suggest drugs, such as antihistamines, to reduce any itching.

Dry skin

You may have dry skin. This can include mild scaling, roughness, feelings of tightness or itching.

It may help to:

- Use a moisturiser regularly and avoid perfumed products
- Protect your hands when doing household or outdoor chores
- Rinse and dry your hands carefully, particularly after contact with cleaning products
- Pat your skin dry with a soft towel, rather than rubbing vigorously
- Take care when shaving
- Wear cotton clothes where possible next to the skin and wash clothes in mild detergent

Hair thinning and hair loss

Taking palbociclib and hormone therapy can cause hair thinning or hair loss.

Find out more about [hair loss](#).

Less common side effects

Inflammation of the lungs

Palbociclib can cause severe inflammation of the lungs.

Contact your treatment team straight away if you have any new or worsening symptoms involving your lungs including:

- Difficulty or discomfort with breathing
- Shortness of breath at rest or during mild activity
- Dry cough
- Chest pain

Blurred vision, dry eyes and increased tears

Palbociclib may cause eyesight changes such as blurred vision, dry eyes and increased tear production.

Contact your treatment team as soon as possible if you have any of these symptoms. They can arrange for you to see an optician if necessary.

Change in taste

Your taste can change and some food may taste different, for example more salty, bitter or metallic.

It can help to try different types of food to find the ones you prefer to eat.

5. Other important information

Availability

Palbociclib in combination with an aromatase inhibitor is available on the NHS throughout the UK for people who have not already had any treatment for locally advanced or secondary breast cancer.

In England it's also available in combination with fulvestrant through the Cancer Drugs Fund for:

- People who have had hormone therapy for locally advanced or secondary breast cancer
- Some people whose breast cancer has not responded to treatment, or has come back, while taking hormone therapy for primary breast cancer

People in Wales and Northern Ireland also benefit from drugs listed for use on the Cancer Drugs Fund. Find out more about [new cancer treatment and drug availability](#).

In Scotland palbociclib in combination with fulvestrant is available for:

- People who have had hormone therapy for locally advanced or secondary breast cancer
- Some people whose breast cancer has not responded to treatment, or has come back, while taking hormone therapy for primary breast cancer

You may also be offered palbociclib as part of a clinical trial.

Allergic reaction

Very occasionally allergic reactions to palbociclib can occur. Reactions vary from mild to severe, although severe reactions are uncommon.

If you have any swelling, wheezing, chest pain or difficulty breathing after taking palbociclib, contact your local A&E department, GP or treatment team immediately.

Blood clots

People with breast cancer have a higher risk of blood clots such as a deep vein thrombosis (DVT). Their risk is higher because of the cancer itself and some treatments for breast cancer. When cancer has spread to other parts of the body, this also increases the risk.

People with a DVT are at risk of developing a pulmonary embolism (PE). This is when part of the blood clot breaks away and travels to the lung.

Blood clots can be harmful but are treatable so report symptoms as soon as possible.

If you experience any of the following symptoms contact your local A&E department, GP or treatment team straight away:

- Pain, redness/discolouration, heat and swelling of the calf or thigh
- 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
- Tightness in the chest
- Unexplained cough or coughing up blood

Find out more about [blood clots](#).

Sex, contraception and pregnancy

Taking palbociclib while pregnant may be harmful to a developing baby.

Barrier contraception should be used during treatment and for at least three weeks after stopping treatment.

Some women can still become pregnant even if their periods are irregular or have stopped.

Men taking palbociclib should use contraception during treatment and for 14 weeks after stopping.

While women's fertility may not be affected, palbociclib can decrease fertility in men. Men taking palbociclib may want to talk to their treatment team about sperm preservation before starting treatment.

Palbociclib and breastfeeding

You'll be advised not to breastfeed during treatment and for at least three weeks after your last dose. This is because there's a chance your baby may absorb the drug through your breast milk, which may cause harm.

Vaccinations

Always check with your treatment team before having any vaccinations while taking palbociclib.

You should not have any live vaccines, which include measles, rubella (German measles), polio, BCG (tuberculosis), shingles and yellow fever.

Live vaccines contain a small amount of live virus or bacteria. These could be harmful and cause infections.

If you're planning a trip and need vaccinations, discuss this with your treatment team.

If someone you live 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 having, or due to have, treatment for breast cancer. The flu vaccine is not a live vaccine so doesn't contain any active viruses. Talk to your treatment team about the best time to have your flu jab.

Coronavirus (Covid-19) vaccination

People having palbociclib are advised to speak to their treatment team before having the coronavirus (Covid-19) vaccination.

Find out more about the [coronavirus vaccine](#).

6. Further support

Being diagnosed with breast cancer can make you feel lonely and isolated.

Many people find it helps to talk to someone who has been through the same experience as them.

[Living with Secondary Breast Cancer Online programme and virtual meetings](#) let you share experiences with other people dealing with the uncertainty and challenges of secondary breast cancer.

If you would like any further information and support about breast cancer or just want to talk things through, you can speak to one of our experts by calling our free [Helpline](#) on 0808 800 6000.

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Next planned review begins 2023