Paclitaxel

Paclitaxel is used to treat breast cancer, ovarian cancer and non-small cell lung cancer. It may sometimes be used to treat other cancers.

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What is paclitaxel?

Paclitaxel is used to treat breast cancer, ovarian cancer and non-small cell lung cancer. It may sometimes be used to treat other cancers.

It is best to read this information with our general information about chemotherapy and the type of cancer you have.

Your cancer doctor will talk to you about this treatment and its possible side effects before you agree (consent) to have treatment.

More information about this treatment

This information is correct at time of publishing. But sometimes the types of cancer this treatment is used for, or treatment side effects, may change between revision dates.

You can talk to your cancer team if you want more detailed information about this treatment. Or visit the electronic Medicines Compendium (eMC) website, which has patient information leaflets (PIL) for individual drugs.

How paclitaxel is given

You will be given paclitaxel in the chemotherapy day unit or during a stay in hospital. A chemotherapy nurse will give it to you. Paclitaxel can be given with other cancer drugs.

During a course of treatment, you usually see a:

- cancer doctor
- chemotherapy nurse or specialist nurse
- specialist pharmacist.

This is who we mean when we mention doctor, nurse or pharmacist in this information.

Before or on the day of each treatment, a nurse or person trained to take blood (phlebotomist) will take a blood sample from you. This is to check that it is safe for you to have chemotherapy.

You will speak to a doctor, nurse or pharmacist before you have chemotherapy. They will talk to you about your blood results and ask you how you have been feeling. If your blood results are okay, the pharmacy team will prepare your chemotherapy.

You may have steroids as an injection before your treatment. Or you may be given steroid tablets to take the day before your treatment. It is important to take these exactly as the doctor or nurse has explained to you. It is important to tell your doctor or nurse if you have not taken them for any reason.

Your nurse usually gives you anti-sickness (anti-emetic) drugs before the chemotherapy. They will also give you medicines to help prevent an allergic reaction.

You may have the chemotherapy drugs through:

- a cannula – a short, thin tube the nurse puts into a vein in your arm or hand
- a central line – a fine tube that goes under the skin of your chest and into a vein close by
- a PICC line – a fine tube that is put into a vein in your arm and goes up into a vein in your chest
- an implantable port (portacath) – a disc that is put under the skin on your chest or arm and goes into a vein in your chest.

Your course of chemotherapy

You usually have a course of several cycles of treatment over a few months. Your doctor, nurse or pharmacist will discuss your treatment plan with you.

About side effects

We explain the most common side effects of this treatment here. We also include some that are less common.

You may get some of the side effects we mention, but you are unlikely to get all of them. And you may have some side effects, including rarer ones, that we have not listed here.

Other cancer treatments may cause different side effects. If you are also having other cancer treatment, you may have other side effects.

Always tell your doctor, nurse or pharmacist about any side effects you have. They can give you:

- drugs to help control some side effects
- advice about managing side effects.

It is important to take any drugs exactly as explained. This means they will be more likely to work for you.

Serious and life-threatening side effects

Some cancer treatments can cause serious side effects. Sometimes, these may be life-threatening. Your doctor, nurse or pharmacist can explain the risk of these side effects to you.

Contact the hospital

Your doctor, nurse or pharmacist will give you 24-hour contact numbers for the hospital. If you feel unwell or need advice, you can call at any time of the day or night. Save these numbers in your phone or keep them somewhere safe.

Side effects while treatment is being given

Some people may have side effects while they are being given the chemotherapy or shortly after they have it:

Allergic reaction

Some people have an allergic reaction while having this treatment. Before treatment, you will have medicines to help prevent or reduce any reaction.

Signs of a reaction can include:

- feeling hot or flushed
- shivering
- itching
- a skin rash
- feeling dizzy or sick
- a headache
- feeling breathless or wheezy
- swelling of your face or mouth
- pain in your back, tummy or chest.

Your nurse will check you for signs of a reaction during your treatment. If you feel unwell or have any of these signs, tell them straight away. If you do have a reaction, they can treat it quickly.

Sometimes a reaction happens a few hours after treatment. If you develop any of these signs or feel unwell after you get home, contact the hospital straight away on the 24-hour number.

Always call 999 if swelling happens suddenly or you are struggling to breathe.

The drug leaks outside the vein

If the drug leaks outside the vein, it can damage the surrounding tissue. This is called extravasation. Extravasation is not common but if it happens it is important to treat it quickly. Tell your nurse straight away if you have any stinging, pain, redness or swelling around the vein.

If you get any of these symptoms after you get home, contact the doctor or nurse straight away on the contact telephone number they gave you.

Pain along the vein

This treatment can cause pain at the place where the drip (infusion) is given or along the vein. If you feel pain, tell your nurse or doctor straight away so that they can check the site. They may give the drug more slowly or flush it through with more fluid to reduce pain.

Common side effects

Risk of infection

This treatment can reduce the number of white blood cells in your blood. These cells fight infection. If your white blood cell count is low, you may be more likely to get an infection. A low white blood cell count is called neutropenia.

An infection can be very serious when the number of white blood cells is low. It is important to get any infection treated as soon as possible. If you have any of the following symptoms, contact the hospital straight away on the 24-hour number:

- a temperature above 37.5°C
- a temperature below 36°C
- you feel unwell, even with a normal temperature
- you have symptoms of an infection.

Symptoms of an infection include:

- feeling shivery and shaking
- a sore throat
- a cough
- breathlessness
- diarrhoea
- needing to pass urine (pee) often, or discomfort when you pass urine.

It is important to follow any specific advice your cancer treatment team gives you.

Your white blood cell count will usually return to normal before your next treatment. You will have a blood test before having more treatment. If your white blood cell count is low, your doctor may delay your treatment for a short time, until your cell count increases.

Bruising and bleeding

This treatment can reduce the number of platelets in your blood. Platelets are cells that help the blood to clot.

If the number of platelets is low, you may bruise or bleed easily. You may have:

- nosebleeds
- bleeding gums
- heavy periods
- blood in your urine (pee) or stools (poo)
- tiny red, brown or purple spots that may look like a rash – these spots can be harder to see if you have black or brown skin.

If you have any unexplained bruising or bleeding, contact the hospital straight away on the 24-hour number. You may need a drip to give you extra platelets. This is called a platelet transfusion.

Anaemia (low number of red blood cells)

This treatment can reduce the number of red blood cells in your blood. Red blood cells carry oxygen around the body. If the number of red blood cells is low, this is called anaemia. You may feel:

- very low in energy
- breathless
- dizzy and light-headed.

If you have these symptoms, contact the hospital straight away on the 24-hour number. You may need treatment for anaemia. If you are very anaemic, you may need a drip to give you extra red blood cells. This is called a blood transfusion.

Feeling sick

Your doctor, nurse or pharmacist will prescribe anti-sickness drugs to help prevent or control sickness. Take the drugs exactly as they tell you to, even if you do not feel sick. It is easier to prevent sickness than to treat it after it has started.

If you feel sick, take small sips of fluid often and eat small amounts regularly. It is important to drink enough fluids. If you continue to feel sick, or if you are sick (vomit) 1 to 2 times in 24 hours, contact the hospital on the 24-hour number as soon as possible. They will give you advice. They may change your anti-sickness treatment. Let them know if you still feel sick.

Diarrhoea

This treatment may cause diarrhoea. Diarrhoea means passing more stools (poo) than is normal for you, or having watery or loose stools. You may also have stomach cramps. If you have a stoma, it may be more active than usual.

If you are passing loose stools 3 or more times a day and this is not normal for you, contact the hospital as soon as possible on the 24-hour number. Follow the advice they give you about:

- taking anti-diarrhoea medicines
- drinking enough fluids to keep you hydrated and to replace lost salts and minerals
- any changes to your diet that might help.

They might also ask you for a specimen of your stool to check for infection.

Hair loss

You usually lose all the hair from your head. You may also lose your eyelashes and eyebrows, as well as other body hair. Hair loss usually starts after your first or second treatment.

Scalp cooling is a way of lowering the temperature of your scalp to help reduce hair loss. Your nurse can tell you whether this is an option for you.

If you want to cover up hair loss, there are different ways to do this. Your nurse can give you information about coping with hair loss. Remember to protect your skin from the sun. Use suncream with a sun protection factor (SPF) of at least 30 on your scalp. Or cover up with a hat or scarf.

Hair loss is usually temporary. Your hair will usually grow back after treatment ends. Very rarely, hair may not grow back. Or it may grow back thinner than before. If you are worried about this, talk to your doctor, nurse or pharmacist.

Sore mouth and throat

This treatment may cause a sore mouth and throat. You may also get mouth ulcers. This can make you more likely to get a mouth or throat infection. Use a soft toothbrush to clean your teeth or dentures in the morning, at night and after meals.

Contact the hospital straight away on the 24-hour number, if:

- a sore mouth or throat affects how much you can drink or eat
- your mouth, tongue, throat or lips have any blisters, ulcers or white patches.

They can give you advice, and mouthwash or medicines to help with the pain or to treat any infection. Follow their advice and make sure you:

- drink plenty of fluids
- avoid alcohol and tobacco
- avoid food or drinks that irritate your mouth and throat.

Feeling tired

Feeling tired is a common side effect of this treatment. It is often worse towards the end of treatment and for some weeks after it ends. Try to pace yourself and plan your day so you have time to rest. Gentle exercise, like short walks, can help you feel less tired.

If you feel sleepy, do not drive or use machinery.

Muscle or joint pain

You may get pain in your muscles or joints for a few days after treatment. If this happens, tell your doctor, nurse or pharmacist. They can give you painkillers and advice. They can also tell you if any of the painkillers you usually take are suitable.

If you have muscle or joint pain, try:

- placing a heat pad or covered hot water bottle against the painful area
- taking warm baths
- planning your activities to include regular rests.

Numb or tingling hands or feet (peripheral neuropathy)

This treatment may affect the nerves in your fingers and toes. This can cause numbness, tingling or pain in your hands or feet. This is called peripheral neuropathy. You might find it hard to do fiddly tasks such as fastening buttons or tying shoelaces.

If you have these symptoms, always tell your doctor, nurse or pharmacist. They sometimes need to change the drug or the dose of the drug. The symptoms usually improve slowly after treatment ends. But for some people they continue and are a long-term side effect of treatment.

Changes in blood pressure

This treatment may cause low blood pressure (hypotension). Less often, it can cause high blood pressure (hypertension).

Tell your doctor or nurse if you have ever had any problems with your blood pressure. Your nurse will check it regularly during treatment. Let them know if you feel dizzy or light-headed. If you feel this way, do not drive or operate machinery.

Effects on the liver

This treatment may affect how your liver works. This is usually mild and goes back to normal after treatment ends. You will have blood tests to check how well your liver is working.

Skin changes

Chemotherapy can affect your skin. It might feel dry. You may develop a rash, which may be itchy. Always tell your doctor, nurse or pharmacist about any skin changes. They can give you advice or prescribe creams or medicines to help.

If your skin feels dry, try using soap-free cleansers and unperfumed moisturising cream every day.

Serious skin changes

Rarely, this treatment can cause a serious skin reaction that needs to be treated immediately in hospital. Contact the hospital straight away on the 24-hour number if you have any of these symptoms:

- a skin rash that is spreading
- blistering or peeling skin
-

flu-like symptoms, such as a high temperature and joint pain

- sores on your lips or in your mouth.

Hand-foot (palmar-plantar) syndrome

This treatment can affect the palms of your hands and the soles of your feet. This is called palmar-plantar or hand-foot syndrome.

If you have white skin these areas may become red. If you have black or brown skin, these areas might get darker.

The skin on the palms of your hands and the soles of your feet may:

- be sore
- be painful, tingle, or swell
- peel, crack or blister.

If you have any of these symptoms, contact the hospital straight away on the 24-hour number. They can give you advice. This is especially important if you have any broken skin or if walking is difficult. They can prescribe creams and painkillers to help.

You can care for your hands and feet by:

- keeping your hands and feet cool by washing in cool water
- gently moisturising your hands and feet regularly
- wearing gloves to protect your hands and nails when working in the house or garden
- wearing loose cotton socks and avoiding tight-fitting shoes and gloves.

Nail changes

This treatment can affect your nails. They may grow more slowly or break more easily. You might notice ridges or white or dark lines across your nails. These changes usually disappear as the nails grow out after treatment. Sometimes nails can become loose or fall out.

If the skin around your nails becomes sore and swollen, contact the hospital straight away on the 24-hour number. These might be signs of an infection.

Tips to look after your nails:

- Keep your nails clipped short and clean.
- Avoid using very hot water when washing your hands or bathing.
- Moisturise your nails and cuticles regularly.
- Avoid false nails, gels or other acrylics during treatment – it is okay to use water-based nail polish.
- Wear gloves to protect your nails when working in the house or garden.
- If your toenails are affected, wear well-fitting shoes, or shoes with open toes to cushion them.
- Use a suncream with a high sun protection factor (at least SPF 30) to protect your hands and feet.

Tell your doctor or nurse about any changes to your nails. They can give you advice or arrange for you to see a podiatrist. They are a foot care specialist.

Less common side effects

Eyesight changes

This treatment can affect your eyes and eyesight. Contact your doctor straight away if you have any changes during treatment or after it finishes. Do not drive or operate machinery if you have any changes to your eyesight.

Hearing changes

This treatment may cause hearing changes, including hearing loss. You may have ringing in the ears. This is called tinnitus. You may also become unable to hear some high-pitched sounds. Hearing changes may get better after this treatment ends. But this does not always happen. If you notice any changes in your hearing, tell your doctor, nurse or pharmacist.

Effects on the heart

This treatment can affect how the heart works. You may have tests to check how well your heart is working. These may be done before, during and after treatment.

If the treatment is causing heart problems, your doctor may change the type of treatment you are having.

Contact the hospital straight away on the 24-hour number if you have any of these symptoms during or after treatment:

- breathlessness
- dizziness
- changes to your heartbeat (palpitations)
- swollen feet and ankles.

Other conditions can cause these symptoms, but it is important to get them checked by a doctor.

Always call 999 if you have:

- chest pain, pressure, heaviness, tightness or squeezing across the chest
- difficulty breathing.

Effects on the nervous system

This treatment can affect the nervous system. You may feel dizzy or unsteady. Tell your doctor or nurse straight away if you notice these symptoms. After you go home, it is important not to drive or operate machinery if you notice these effects.

Tummy pain

You may get pain in your tummy (abdomen), or have indigestion. Your doctor, nurse or pharmacist can give you advice or treatment to help. Contact the hospital straight away on the 24-hour number if your symptoms do not go away, or get worse.

Effects on the lungs

This treatment can cause inflammation of the lungs. This is called pneumonitis. Contact the hospital straight away on the 24-hour number if you notice any of these changes during treatment or after it ends:

- breathlessness
- a cough that does not go away
- wheezing
- a fever, with a temperature over 37.5°C.

You should also tell them if any existing breathing problems get worse. You may have tests to check your lungs. You may need steroids or other treatments.

Other important information

Blood clot risk

Cancer and some cancer treatments can increase the risk of a blood clot. Contact the hospital straight away on the 24-hour number if you have any of these symptoms during or after treatment:

- throbbing pain or swelling in a leg or arm
- reddening of the skin in the area – if you have black or brown skin, this can be harder to notice, but the skin might become darker
- suddenly feeling breathless or coughing.

Always call 999 if you have:

- chest pain
- difficulty breathing.

A blood clot is serious, but it can be treated with drugs called anticoagulants. These thin the blood. Your doctor, nurse or pharmacist can give you more information about preventing and treating blood clots.

Other medicines

Some medicines can affect how this treatment works or be harmful while you are having it. Always tell your cancer doctor, nurse or pharmacist about any drugs you are taking or planning to take, such as:

- medicines you have been prescribed
- medicines you buy in a shop, pharmacy or online

- vitamins or supplements
- herbal drugs and complementary or homeopathic therapies
- recreational drugs – for example, cannabis.

Alcohol

Some preparations of this treatment contain alcohol. If having alcohol is a problem for you, tell your doctor, nurse or pharmacist. Your blood alcohol level may be above the legal limit after you have the treatment. Do not drive or operate machinery for a few hours after having this treatment, even if you feel okay.

Vaccinations

Cancer doctors usually recommend that people with cancer have vaccinations for flu and coronavirus (covid). They may also recommend other vaccines, such as Shingrix® for shingles. These all help reduce your risk of serious illness from these infections. Most people can have these vaccines, including people with weak immune systems.

You should not have live vaccines if your immune system is weak. This includes if you are having or recently had chemotherapy, radiotherapy or other cancer treatments that affect your immune system. Live vaccines can make you unwell because they contain a very weak version of the illness they protect you against. There are several live vaccines, including the yellow fever vaccine.

It is important to ask your doctor, nurse or pharmacist for advice about having vaccinations. They can explain what vaccines are right for you and when it is best to have them.

Contraception

Your doctor will advise you not to get pregnant or make someone pregnant while having this treatment. The drugs may harm a developing baby. It is important to use contraception during your treatment and for at least 6 months after treatment finishes. Your doctor, nurse or pharmacist can tell you more about this.

Breastfeeding

You are advised not to breastfeed while having this treatment, or for some time after treatment ends. This is because the drugs could be passed to the baby through breast milk.

Your doctor, nurse or pharmacist can give you more information.

Fertility

Some cancer drugs can affect whether you can get pregnant or make someone pregnant. If you are worried about this, it is important to talk with your doctor before you start treatment.

Changes to periods

If you have periods, these may become irregular or stop while you are having this treatment. They might return after treatment, but this does not always happen. Your menopause may start sooner than it would have done. Your doctor, nurse or pharmacist can give you more information.

Sex

It is possible that small amounts of chemotherapy may be passed on through vaginal fluids or semen. If you have sex in the first few days after treatment, your cancer team will usually advise using condoms or a dental dam to protect your partner.

Medical and dental treatment

If you need medical treatment for any reason other than cancer, always tell the healthcare professional that you are having cancer treatment. Give them the contact details for your cancer doctor or cancer team so they can ask for advice.

If you have appointments with a dentist, always tell them you are having cancer treatment. Talk to your cancer team before you have any dental treatment.

About our information

References

Visit the electronic Medicines Compendium (eMC) to download a Patient Information Leaflet (PIL) for more detailed information. The leaflet lists all known side effects.

Reviewers

This information has been written, revised and edited by Macmillan Cancer Support's Cancer Information Development team. It has been reviewed by expert health professionals and people living with cancer. Our cancer information has been awarded the PIF TICK. Created by the Patient Information Forum, this quality mark shows we meet PIF's 10 criteria for trustworthy health information.

The language we use

We want everyone affected by cancer to feel our information is written for them.

We want our information to be as clear as possible. To do this, we try to:

- use plain English
- explain medical words
- use short sentences
- use illustrations to explain text
- structure the information clearly
- make sure important points are clear.

We use gender-inclusive language and talk to our readers as 'you' so that everyone feels included.

Where clinically necessary we use the terms ‘men’ and ‘women’ or ‘male’ and ‘female’. For example, we do so when talking about parts of the body or mentioning statistics or research about who is affected.

You can read more about how we produce our information here.

Date reviewed

Reviewed: 01 November 2023 | Next review: 01 November 2025

Trusted Information Creator
Patient Information Forum

Our cancer information meets the PIF TICK quality mark.

This means it is easy to use, up-to-date and based on the latest evidence. Learn more about how we produce our information.

How we can help

How to print a PDF from this website

Instructions on how you can make a PDF version of this page using the print function on your browser.

Clinical Information Nurse Specialists

Our Cancer Information Nurse Specialists are dedicated cancer nurses available to talk to on our Macmillan Cancer Support Line.

Call us free on 0808 808 00 00

8am to 8pm, 7 days a week. You can talk to our cancer specialists about anything.

Online Community

Chat online anonymously to others who understand what you are going through. Our community is available 24/7 and has dedicated forums where you can get advice and ask our experts.

Find local cancer support services

What's going on near you? Find out about support groups, where to get information and how to get involved with Macmillan where you live.