Paclitaxel (Taxol)

This booklet explains briefly what paclitaxel is, when it may be prescribed, how it works and what side effects may occur.
What is paclitaxel?

Paclitaxel is a chemotherapy drug. Chemotherapy drugs (also called cytotoxic drugs) aim to destroy cancer cells by interfering with how they develop and grow. Different drugs do this in different ways.

Paclitaxel is the generic (non-branded) name of the drug, but you may hear it called by one of its brand names such as Taxol. Paclitaxel can be combined with a protein which may reduce some of its side effects. When combined with a protein the drug is called nab-paclitaxel or Abraxane.

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

How does paclitaxel work?

Paclitaxel works by stopping the cancer cells from dividing and multiplying which blocks the growth of the cancer.

Who might be offered paclitaxel?

Paclitaxel may be used alone or in combination with other drugs to treat breast cancer that has spread to areas around the breast, such as the lymph nodes above or below the collarbone (known as regional or locally advanced recurrence), or to other parts of the body (secondary breast cancer).

Paclitaxel is sometimes used in combination with other drugs to treat primary breast cancer (cancer that started in the breast and has not spread to other parts of the body) or it might be given as part of a clinical trial for primary breast cancer.

Clinical trials are studies that aim to find the best treatment for a particular condition. There’s information on clinical trials on our website www.breastcancercare.org.uk

How is paclitaxel given?

Paclitaxel is given through a drip into a vein (intravenously) in the hand or arm. If it’s difficult to find suitable veins it may be given via a skin-tunnelled catheter (a tube that allows fluids to be given) that can stay in place for weeks or months. See our Chemotherapy for breast cancer booklet for more information about these.

Paclitaxel can be given over a three-hour period once every three weeks, or two weekly (accelerated), or it may be given weekly in lower doses over one hour. The interval between each course of treatment gives your body time to recover, and may vary depending on whether the number of blood cells has returned to normal between each cycle.

Before each dose of paclitaxel you’ll be given other medication through the drip including a steroid. This is given to reduce the chances of any possible reactions and to prevent nausea and vomiting.

What are the side effects of paclitaxel?

Like any drug, paclitaxel can cause side effects and we list the main ones below. Everyone reacts differently to drugs and some people have more side effects than others. The side effects of paclitaxel can usually be controlled and those described here will not affect everyone.

If you’re concerned about any side effects, regardless of whether they are listed here, talk to your chemotherapy nurse or cancer specialist (oncologist).

If you’re being given other chemotherapy or anti-cancer drugs with paclitaxel, you may have additional side effects from these drugs.

For more information about the side effects of chemotherapy, see our Chemotherapy for breast cancer booklet.

Effects on the blood

Chemotherapy drugs can temporarily affect the number of healthy blood cells within the body. Blood cells (white blood cells, red blood cells and platelets) are released by the bone marrow (the spongy material found in the hollow part of bones) to replace those which are naturally used up within the body. Chemotherapy reduces the ability of the bone marrow to make these cells.
You’ll have regular blood tests throughout your treatment to check your blood count. If your blood count is too low it may be necessary to delay the next course of treatment or reduce the chemotherapy dose given.

**Risk of infection**
Not having enough white blood cells can increase the risk of getting an infection. Your resistance to infection is usually at its lowest point around 7-14 days after having chemotherapy. The number of white blood cells usually returns to normal before your next course of chemotherapy is due. When the white blood cells fall below a certain level, it’s known as neutropenia. If you also have a high temperature (above 38°C), it’s known as febrile neutropenia.

If you feel unwell, are shivering or have a temperature above 38°C at any time during your treatment, you should contact the hospital immediately even if this happens at the weekends or during the night.

You should be given a 24-hour contact number or advice about seeking emergency care by your specialist team before starting chemotherapy.

At some point during your treatment you may need to be treated with antibiotics. In certain circumstances, your doctor may recommend injections of drugs that stimulate the production of white blood cells to reduce your risk of further infection. Your specialist will explain more about these injections if you are going to have them.

**Anaemia**
Having too few red blood cells can mean that you are anaemic. If you feel particularly tired, breathless or dizzy, you should let your specialist team know. Occasionally a blood transfusion may be necessary during your treatment.

**Bruising and bleeding**
Chemotherapy can reduce the number of platelets (which help the blood to clot). You may find you bruise more easily, have nosebleeds or notice that your gums bleed when you brush your teeth. You should tell your specialist team if you experience any of these symptoms.

**Hair loss**
Paclitaxel causes hair loss. Most people will lose all their hair, including eyebrows, eyelashes and pubic hair.

You may begin to lose your hair about two weeks after the first treatment, but it can happen earlier. Hair loss is usually gradual but it can happen very quickly, possibly over a couple of days. It can sometimes be minimised by scalp cooling. This involves wearing a ‘cold cap’ before, during and for one to two hours after your treatment with the chemotherapy drugs. How well the cold cap works depends on the drugs and doses used, and it does not work for everyone.

Any hair loss should be temporary and in most cases your hair will begin to grow back a few weeks after your treatment has ended. Prolonged or permanent hair loss has been reported in a very small number of cases.

For more information about hair loss, see our booklet **Breast cancer and hair loss**.

**Numbness and tingling in hands or feet**
Some people having paclitaxel experience numbness or tingling in their hands and feet. This is due to the effect of paclitaxel on the nerves and is known as peripheral neuropathy. In most cases it’s mild and goes away soon after treatment stops. If it’s severe, it may be necessary to reduce the dose of paclitaxel or stop it completely. It normally improves a few months after the treatment has finished, but it may not disappear completely.

If you experience numbness or tingling, mention this to your specialist team when you see them next so that the symptoms can be monitored.

**Painful muscles and joints**
Your muscles or joints may ache or become painful two to three days after you have your treatment. This usually wears off after a few days. However, it can be severe and you may need to take mild pain relief or anti-inflammatory drugs. It is a good idea to have some of these available before starting your treatment just in case you need them.
Sickness (nausea) and vomiting
Nausea is usually mild and most people will not actually be sick. You may start to feel unwell a few hours after your treatment but you will be prescribed anti-sickness drugs to reduce or stop this happening.

For more information about nausea and vomiting, see our Chemotherapy for breast cancer booklet.

Skin reactions
You may develop a rash anywhere on your body or your skin may discolour. This may be red and itchy. Or you may feel flushed. Your doctor may prescribe medicine to help. If you have skin reactions, mention this to your specialist team when you see them next so they can monitor the symptoms.

Sore mouth
Your mouth may become sore and small ulcers can develop. You will usually be provided with mouthwash to reduce the risk of a sore mouth developing. If you do get a mouth infection your specialist or chemotherapy nurse can advise you about different mouthwashes or suitable medicine. For more information on coping with a sore mouth, see our Chemotherapy for breast cancer booklet.

Diarrhoea
If you have diarrhoea, your specialist or GP can prescribe medicine to help control it. If you have persistent diarrhoea, you should contact your specialist team.

Fatigue
You may become extremely tired during your treatment. For some people, this fatigue can last for several weeks or even months after the treatment has finished. Gentle exercise, such as short walks, can help improve fatigue.

Your ability to concentrate or think clearly can be affected, which can be very frustrating. This is sometimes called ‘chemo-brain’ or ‘chemo-fog’ and usually improves over time after treatment has finished.

For more information see our Chemotherapy for breast cancer booklet.

Low blood pressure
Your blood pressure will be checked regularly while you are on paclitaxel. Let your doctor or nurse know if you feel dizzy or light headed.

Less common side effects
Nail reactions
After a few doses of paclitaxel, the colour of your nails may change but this will normally grow out over several months. The nails may also become brittle, crack or change in texture, for example ridges may form. A few people lose nails on their fingers or toes during or shortly after treatment, but they will grow back.

Reaction in the injection site
Pain, redness, discolouration or swelling can occur where the needle has been inserted or anywhere along the vein. If you experience any of these, tell your chemotherapy nurse. After a few weeks you may notice tenderness, darkening and hardening around where the needle was inserted. This should fade in time.

Fertility
It is not known exactly what effect paclitaxel has on fertility. However, any effects will also depend on other chemotherapy drugs you are having at the same time or have received in the past, and your age.

Some women stop having periods (amenorrhoea) during chemotherapy, although this may be temporary. Women aged around 40 and above are less likely to have their periods return after completing chemotherapy than women under this age. It’s important to use a barrier method of contraception, such as condoms, to prevent pregnancy while you are having paclitaxel, as it may have a harmful effect on a developing baby.

If you’re concerned about your fertility, it’s important to talk to your specialist team before treatment begins. If you want to know more about your fertility or pregnancy after treatment, see our Fertility issues and breast cancer treatment booklet.

Paclitaxel is not suitable during pregnancy or while breastfeeding.

Effects on the liver
Paclitaxel may affect how well your liver works. This is temporary and your liver function will usually return to normal when the treatment has stopped. You are unlikely to notice any symptoms. You’ll have regular blood tests to monitor this throughout your treatment.
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.

Other information

Vaccinations
Some vaccines are safe to have during paclitaxel, others are not.

Live vaccines (which contain a small amount of live virus or bacteria that has been altered) could be harmful if you have a weakened immune system so should be avoided during treatment. Live vaccines include measles, rubella, yellow fever and typhoid. Some specialists advise you not to have live vaccines for six months after chemotherapy or until your immune system has fully recovered from the treatment.

Inactivated vaccines, such as the seasonal flu vaccine are safe and usually recommended for people starting or on chemotherapy to reduce their risk of infection with the flu virus.

Your immune system needs to be healthy in order to make the antibodies to the vaccine that protects you from the flu. Therefore it’s best to have the vaccination at least two weeks before your chemotherapy starts.

Rare side effects

Changes in heart rate
Paclitaxel can alter your heart rate, so you’ll be carefully monitored for this during your treatment. If changes to your heart rate occur this can usually be treated easily and you will not have to stop your treatment. This is not the same as having an allergic reaction to paclitaxel (see below).

Allergic reaction
If you have an allergic reaction to paclitaxel, it will probably happen within the first few minutes of your treatment. It’s more likely to happen the first or second time you have the drug. Reactions can vary from mild to severe, although severe reactions are uncommon. Before your treatment starts, you will be given drugs to reduce the risk of an allergic reaction.

You’ll be monitored closely during your treatment so that any reaction can be dealt with immediately. Symptoms include flushing, skin rash, itching, back pain, shortness of breath, faintness, fever or chills. If you have a severe reaction, treatment will be stopped immediately. You may not be given paclitaxel again or it may be given with extra drugs to prevent another reaction, and/or the paclitaxel may be given more slowly.
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.

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About this booklet

Paclitaxel (Taxol) 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 0345 092 0808
Email publications@breastcancercare.org.uk

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

For a large print, Braille, DAISY format or audio CD version:

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Email publications@breastcancercare.org.uk
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](http://www.breastcancercare.org.uk) or call us free on 0808 800 6000 (Text Relay 18001).

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