

A drop in the number of white blood cells can sometimes be life-threatening because your body cannot fight infections in the usual way. It is important that if you feel unwell between treatment cycles you take your temperature.

A temperature of 38 C or more may mean you have an infection related to a low white blood cell count. If this happens, it needs urgent treatment with antibiotics through a drip. If you develop a fever you should go to the nearest hospital emergency department.

Mouth ulcers

Some chemotherapy drugs can give you a sore mouth, mouth ulcers or infections. It is important that you keep your mouth as clean as possible during treatment.

The chemotherapy nurses will talk to you about this and show you what you can do to prevent problems. Usually, this includes using a very soft toothbrush and using a special mouthwash at regular intervals.

Skin sensitivity

Chemotherapy may cause changes in the skin, making it more sensitive to the sun. The skin may also darken or become dry and itchy. Sorbolene is recommended for the treatment of dry skin. Always let your doctor know if you develop these problems. It is important to avoid exposure to the sun where the UV levels are high, and to use sunscreen and other sun protection such as a hat and appropriate clothing if you are outside.

Fertility and contraception

Chemotherapy often causes periods to stop. This can be a temporary effect or it may be permanent, leading to an early menopause. The likely effect of chemotherapy on fertility is individual and it depends on things such as the drugs that are used, how old you are and what treatments will be used after chemotherapy. If you think you may want to have a baby in the future, it is very important that you speak to your doctor about this before chemotherapy starts.

It is important that you do not become pregnant during or in the few months after chemotherapy treatment. You may wish to use a barrier contraceptive method such as condoms while you are on chemotherapy and for at least a year afterwards. Your doctor will discuss this with you



Indigestion and heartburn

Indigestion is often made worse during chemotherapy. This may be a side effect of dexamethasone that is used as an anti-nausea drug. It tends to increase acid production from the stomach. Heartburn is usually easily overcome by the use of drugs that reduce gastric acid. These should only be used on prescription from your oncologist or GP.

Changes in bowel habit

Chemotherapy drugs and the anti-nausea drugs used with them may cause diarrhoea or constipation. Constipation is an annoyance but can usually be easily managed with laxatives. Diarrhoea can sometimes develop with particular chemotherapy drugs. It is important that if you develop diarrhoea that you let your oncologist or nurse know. You will be given specific advice about how to manage it.

Will I be able to work while I am having treatment?

Most women are able to continue working during chemotherapy if they wish to. If you plan to keep working, it helps to have a supportive work place that gives you flexible work hours. You may need to have a few days off after each cycle of chemotherapy and when you get back to work you may find it difficult to work long hours. Your doctor can provide a medical certificate for time off; this can be just a few days or a few months depending on your individual situation.

What if I have side effects?

You will see your doctor regularly while you are having treatment. Before each dose of chemotherapy you will have a blood test and a consultation with your medical oncologist to review your treatment. You will be able to discuss any side effects you have experienced and to ask questions. If necessary, the treatment can be adjusted for the next cycle.

What can I do to reduce side effects?

Many side effects of chemotherapy can be reduced by drinking plenty of fluids and resting for the first few days after treatment. Getting back to some of your normal activities, including exercise, also helps your recovery.

Things to avoid

- > There are some medicines that can interfere with the effects of chemotherapy. If you are planning to use any prescription medications or non-prescription therapies or remedies during your chemotherapy, you should speak to your doctor first. Many of these treatments can interfere with the beneficial effects of chemotherapy.
- > Multivitamins are generally not needed if you are managing to maintain a healthy diet that includes fruit and vegetables.
- > Do not take aspirin during your chemotherapy.

Who can help?

Cancer treatment, especially chemotherapy, can be a frightening experience. Specialist doctors and nurses are used to helping women through treatment and they are available for you. Some cancer centres also run support groups, yoga classes and a variety of other programs to help your physical and emotional well-being.

Useful contacts/websites

Cancer Australia	canceraustralia.gov.au
Cancer Council	cancer.org.au
Cancer Council Helpline	13 11 20
Breast Cancer Network Australia (BCNA)	1800 500 258 bcna.org.au

Supporting People with Breast Cancer Today and Every Day

- ✿ Providing screening, diagnosis, treatment and care by expert teams
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- ✿ Engaging the help of our community and supporters
- ✿ To shine a Ray of Hope



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IMPORTANT At all times you should rely on the expert judgement of your medical advisor(s). This information guide is not a substitute for medical advice. It is designed to help you understand and discuss your treatment.

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Chemotherapy for Breast Cancer

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What is chemotherapy?

Chemotherapy is the use of drugs (medicines) to kill cancer cells. Chemotherapy medicines are also called 'cytotoxic' or 'anticancer' drugs. The aim of these medicines is to destroy any cancer cells in the body that may have escaped away from the breast into the bloodstream and other parts of the body. These cells are usually much too small to show up on X-rays or blood tests.

'Adjuvant' chemotherapy is chemotherapy that is used after surgery removes a cancer from the breast. Chemotherapy may also be 'neo-adjuvant'; this is chemotherapy that is used to shrink a breast cancer before surgery.



How does chemotherapy work?

Chemotherapy stops cells from growing. Fast growing cells, like cancer cells, are most likely to be affected by chemotherapy drugs. Normal cells can be affected too, and that is why some people experience side effects with treatment. Normal cells recover from chemotherapy treatment.

How is chemotherapy given?

Many different drugs and combinations of drugs can be used to treat breast cancer. Chemotherapy can be taken as tablets or capsules, or injected through an intravenous drip.

Chemotherapy for breast cancer is usually given through a drip. The way that treatment is given depends on the specific drugs that are being used.

Chemotherapy is co-ordinated by a medical oncologist (cancer specialist) and is given by specialist cancer nurses in the chemotherapy unit at a hospital. Chemotherapy is usually given over a few hours as a day-only treatment, so you can go home on the same day. Some women find it helpful to have someone available to drive them home after treatment in case they feel unwell. Chemotherapy is not normally painful although some people find the drip uncomfortable.

Chemotherapy for breast cancer is usually given in treatment cycles. Typically, you would go to the hospital for the day every three weeks and this would be repeated until you have had four or six treatments. Sometimes chemotherapy is given more often than every three weeks, for example it can be given as a weekly cycle for eight to twelve cycles. Your doctor will explain the schedule that has been recommended for you.

Before the first treatment, a pharmacist, doctor or nurse will have a detailed discussion with you. He or she will explain the drugs in detail and talk to you about possible side effects and their treatment. This will help you prepare for the treatment and know what to expect. You will also be given the details about who to contact if you have questions or if you have any problems in the days or weeks after treatment.

Common chemotherapy medicines

The common chemotherapy drugs for breast cancer include:

- > adriamycin and cyclophosphamide (AC)
- > paclitaxel (Taxol®) or docetaxel (Taxotere®)
- > carboplatin
- > capecitabine

Chemotherapy is often combined with non-chemotherapy drugs, such as:

> hormone-blocking treatment

This is a treatment that generally starts after chemotherapy and radiotherapy. Examples include tablets such as tamoxifen, anastrozole (Arimidex®), letrozole (Femara®) and exemestane (Aromasin®). In some patients, these tablets may be combined with a medication called abemaciclib (Verzenio). This is a targeted therapy.

> targeted therapy

This is a treatment that attacks a specific target on a cancer cell, to stop cancer growth and spread. Examples of targeted therapies include intravenous treatments such as trastuzumab (Herceptin) as well as oral medications such as abemaciclib.

> immunotherapy

This is an intravenous treatment that stimulates the body's own immune system to fight cancer. It is often used in combination with chemotherapy. Examples of immunotherapy treatment for breast cancer include a drug called pembrolizumab (Keytruda).



What are the side effects of chemotherapy?

Side effects of chemotherapy vary amongst patients and with different types of chemotherapy medications. Some of the common side effects and their treatment are discussed here.

Tiredness

Tiredness is common during chemotherapy treatment. This can last for a few days after each treatment session (cycle). Sometimes the tiredness lasts for a few weeks and can still be there when the next treatment cycle is due.

It is important that you rest for a few days after treatment. After this, you should try and get back to some of your normal activities even if you still feel very tired. Research has shown that regular exercise actually reduces fatigue. Physical activity also has other health benefits, such as minimising weight gain and preventing cardiovascular problems.

Changes to taste and appetite

Chemotherapy may cause changes to the way food and drinks taste. Often patients describe food as having a 'metallic taste.'

This problem may be difficult to counteract. Changes in taste, combined with nausea or uneasiness in the stomach, may cause cravings for unusual foods, rather like the symptoms of pregnancy.

It is important to keep your strength up by eating frequent small meals and trying different foods. Talking to a dietician or an experienced chemotherapy or breast nurse can be very helpful.

Nausea and vomiting

Nausea is a common side effect of chemotherapy. In the past, vomiting was one of the main side effects but with modern anti-nausea treatments it can be very well controlled. Some people do not feel sick at all after chemotherapy. If nausea does develop, it usually starts four to six hours after treatment and it may last for hours or several days.

Anti-nausea medicines are a routine part of most chemotherapy treatments. The aim is to prevent nausea rather than wait for it to develop. The nurses giving your treatment will explain how these medicines work and how

to take them. If you still feel unwell after taking anti-nausea medicine, speak to your treating doctor or nurse as there may be other things that can help.

Hair loss (alopecia)

Hair loss is a common side effect of chemotherapy. This is a distressing part of treatment for many women. Fortunately, this hair loss is temporary.

The effect of chemotherapy varies with different drugs and from one person to another. Hair loss usually starts within a few weeks of the first dose of chemotherapy. The hair may gradually thin over several weeks or may fall out quite quickly. Hair loss can occur on all parts of the body, not just the head. Hair begins to grow back as soon as the treatment finishes. Sometimes it is a different colour or texture at first.

Losing your hair, even when it is temporary, is upsetting. Chemotherapy and breast care nurses are experienced in helping people through this. They can talk to you about the use of wigs, scarves and hats. Some hospitals have 'scalp cooling' equipment. This may reduce the amount of hair loss experienced. Wig libraries are available in some hospitals. This may reduce the amount of hair loss experienced. Wig libraries are available in some hospitals.

Effects on the blood

Chemotherapy can affect your blood count, and you will have regular blood tests while on treatment. There are different types of blood cells that can be affected by chemotherapy. These include:

- > white blood cells, which help fight infections; if your count drops too low you are more likely to get an infection
- > red blood cells, which carry oxygen from the lungs around the body; if your red blood count is low, this is called 'anaemia'; it may make you look pale and feel tired
- > platelets, which help your blood to clot; if your platelet count is low you can bruise easily and you may bleed for longer than normal after a minor injury. If any part of your blood count is low the chemotherapy dose may be adjusted or you may be given a medicine called pegfilgrastim (Neulasta®) on the day after chemotherapy to support your blood count. Sometimes antibiotic tablets are prescribed to prevent infection.