



**Cancer
Council**
Queensland

Understanding chemotherapy

A guide for people with cancer,
their families and friends.

Treatment

Cancer Council Helpline

13 11 20

www.cancerqld.org.au

Cancer Council Queensland is a not-for-profit, non-government organisation that provides information and support free of charge for people with cancer and their families and friends throughout Queensland. These services are made possible through the generous donations of Queenslanders and we thank them for their continued support.

If you would like to know more about the information and support services provided by Cancer Council Queensland, call our Helpline on 13 11 20 Monday to Friday, 8am to 6pm.

Disclaimer: The information enclosed is provided for educational purposes or for personal use only. Cancer Council Queensland (CCQ) strongly advises this information should not be used as a substitute for seeking medical or health care advice. We strongly recommend that you seek advice from your doctor or treating health care team before making any decision about your health care treatment. Please note that the information enclosed reflects the opinion of the author/s at the time of writing. Every effort has been made by CCQ to ensure its accuracy, however CCQ and its advisors do not accept any liability in relation to this information. This publication is current as at May 2011.

Introduction

This booklet aims to help inform you and those close to you about chemotherapy, and what you can do to assist yourself during your treatment.

It is not designed to replace information from your treating doctor or nurse. You may wish to use this booklet as a guide in asking questions about your treatment. To assist with this, on the following page you will find the section 'My chemotherapy treatment' which your doctor or nurse can help you to complete. There is some space at the back of this booklet for notes and further questions. Here you will also find the Appendix – Medical terms, which will help you further understand the words used throughout.

Personal information

Ask your doctor or nurse to help you complete this page.

Name

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Doctor's name

.....

Phone

A/H

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Hospital

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Hospital contact person /
cancer co-ordinator

.....

Phone

A/H

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Specialist

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Phone

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Nurse

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Phone

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People receiving chemotherapy will often be advised to keep a track of how they are feeling emotionally and/or physically. This may mean writing down the time and date of side-effects (for example, your temperature) and how you managed them.

For this reason it may be helpful to write down these things in a notebook. You can then take the notebook to your doctor's visit. This will help the doctor to know how you have been progressing during treatments and visits.

Checklist for contacting your doctor

Contact your treating doctor or nurse if any of the following occur:

- Fever of 38°C (100.5°F) or over;
- Chills or sweats;
- Cough with coloured phlegm, and/or a sore throat;
- Pain or burning when passing water (urine);
- Severe bruising or bleeding that does not stop after 10 minutes of applying pressure;
- Shortness of breath;
- Diarrhoea;
- Rash;
- Bowels do not open for two or more days;
- Sudden weight loss or gain;
- Tingling or numbness of fingers and toes;
- Unusual pain;
- Pain, redness, burning sensation or swelling where chemotherapy is given;
- Change in colour or odour of urine or presence of 'burning' sensation when passing urine;
- Persistent nausea and vomiting that prevents drinking and eating for more than 24 hours and;
- Anything unusual for you and your body.

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What is cancer?

Cancer is a disease of the body's cells. Cells are the very small building blocks of the various parts of the body, for example the skin, lungs, liver, stomach. Cells differ in shape and function but have the ability to reproduce themselves by cell division; one cell becomes two, two cells become four, and so on. This allows tissues to grow and develop, and to repair themselves after injury.

In normal tissue, cell division follows an orderly pattern. This orderly pattern may be disrupted and cause an abnormal growth which may lead to the build up of a mass of tissue, called a tumour. The tumour may be large but remain self-contained and not spread to other parts of the body; these tumours are called benign.

Malignant tumours, or cancers, are not self-contained. They can invade neighboring tissues and organs, or spread to other parts of the body through the lymphatic system and blood stream, forming new growths called secondaries or metastases.

The treatment of cancer depends on the type of tumour, where it began and if it has spread. Many cancers can be successfully treated, especially if detected early. The main forms of treatment are surgery, radiation therapy, chemotherapy and biological therapies.

Some cancers are better treated with chemotherapy alone, or in addition to surgery or radiation therapy. Thus many cancers, but not all, are managed today by more than one type of treatment.

What is chemotherapy?

Chemotherapy refers to the use of drugs to treat cancer. These special drugs can kill cancer cells and are sometimes called cytotoxic ('cyto' meaning cell and 'toxic' meaning injure or kill). Many of these drugs are obtained from natural sources such as plants while others are man made. There are many different chemotherapy drugs. These drugs are often used in different strengths and combinations.

How does chemotherapy work?

The drugs enter the bloodstream and travel throughout the body to most tissues. The drugs injure rapidly divided cells. Chemotherapy drugs are not cancer specific, this means that cancer cells and also some normal cells are affected by the drugs.

Generally, the effect on normal cells is temporary and they recover quickly from the drugs. This is due to the normal process of repair and healing.

Cancer cells recover slowly and have more difficulty repairing than normal cells. By the time of the next treatment, the body's normal cells have recovered but the cancer cells have not recovered, and therefore, more cancer cells are destroyed with each further treatment.

If treatment can eventually destroy all the cancer cells, the cancer is curable.

Why is chemotherapy used?

Chemotherapy is given with the aim to either cure cancer or improve the future for people by controlling the growth of the cancer. There are several reasons chemotherapy may be given.

Chemotherapy may be used to increase the effectiveness of surgery by destroying possible remaining cancer cells. This is known as adjuvant treatment. Chemotherapy can also be given at the same time as radiation therapy to improve the local effects, this is known as combined modality.

Goals of chemotherapy

Prior to commencing chemotherapy, the doctor should explain what the treatment should achieve for you:

Cure – The aim of treatment is to totally destroy all cancer cells. Remission is the first step to cure. When treatment of a cancer has resulted in no clinically detectable remaining disease, the cancer is said to be in complete remission. The longer the remission lasts, the more likely that a cure has been achieved. In many cancers, after five to ten years in remission the cancer might be said to be cured. This means the chance of the cancer coming back is unlikely.

Control – The amount of cancer in the body is too large to achieve a cure. Chemotherapy can be used to control the growth of the cancer for an extended period of time.

Palliation – Palliative chemotherapy is given when the cancer is unable to be cured. The aim of treatment is to enhance the quality of life such as decrease pain or increase mobility.

How is chemotherapy given?

Chemotherapy is usually given in an 'outpatient' environment or day unit, which means you probably won't need to stay overnight. However, this will usually depend on the type of cancer, the specific

drug type and the dose of the drug you are given. To reach the cancer cells the chemotherapy drugs are delivered into the blood stream in a variety of ways.

Chemotherapy can be given:

Orally – Tablet or capsule.

Intrathecally – Injected via a lumbar puncture (the doctor inserts a needle through the skin of your lower back) into the cerebrospinal fluid which is located around the spine and brain. May also be given via a special device called a ventriculostomy.

Intraperitoneal – Injected directly into the abdomen (peritoneum) via a tube or catheter.

Intra-arterial – Injected directly into an artery, for example the hepatic artery in the liver.

Intravenously – The most common way to administer chemotherapy is intravenously (into a vein). The veins most frequently used for this are found in the forearm or back of the hand. The tube used to access the vein is known as a cannula.

Chemotherapy should not be painful. However, a burning sensation may be felt with some drugs given into the vein. If this occurs, tell your nurse or doctor **immediately**, as the drug may be irritating the vein or leaking into and damaging the tissues surrounding the vein.

If the veins in the forearm or hands are unable to be used due to previous treatment or other medical conditions, a device known as a Central Venous Access Device (CVAD) may be used. Occasionally, your chemotherapy protocol will require a continuous infusion of chemotherapy to be given to you. If this is the case you will need to have a CVAD to allow this to be given as an outpatient.

Your doctor or nurse will discuss this option with you if required.

What type of chemotherapy will be given?

Your doctor will choose the best types of treatment for you. The drugs or combination of drugs used will depend on your general health and what type of cancer you have, whether it is localised or has travelled to other parts of the body. Every person is different and treatment is specially designed for each individual.

This means that each person's reaction to treatment may also vary.

How long does the treatment last?

Chemotherapy is commonly given in courses with rest periods in between. This allows normal cells to recover. Often this rest period is one to several weeks and depends on the type of drug or drugs used.

The number of courses given depends on the type of treatment and the aims of treatment (i.e. cure or control of the cancer). Discuss your treatment course with your doctor.

How will I know if my chemotherapy is working?

Your doctor may use several methods to measure how well your chemotherapy is working. The types of tests you will have will depend on your cancer and the reasons why you are having chemotherapy. You may have physical examinations, blood tests, scans and X-rays. Don't hesitate to ask your doctor about the test results and what they show about your progress.

While this can tell a lot about how chemotherapy is working, side-effects tell very little. Sometimes people think that if they don't have side-effects, the drugs aren't working, or that if they do have side-effects, the drugs are working well. But side-effects vary so much from person to person, and from drug to drug. The presence or absence of side-effects is not a sign of whether the treatment is effective.



For further information,
please feel free to call the

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Chemotherapy safety

When you are receiving your chemotherapy, you will notice that the nurses are wearing special clothing. If someone like a chemotherapy nurse is in contact with chemotherapy on a daily basis for extended periods of time, it is important for them to protect themselves. To do this, they might wear a chemotherapy gown, gloves, special glasses and respiratory protection over their nose and mouth. (The respiratory protection looks like a mask).

After you have had chemotherapy, small amounts of the drugs may be in your urine, bowel motion and vomit for up to seven days. During the seven days after your chemotherapy, if your skin or a surface (like the toilet seat) comes into contact with your urine, bowel motions or vomit, wash the area with water and soap (if skin) or water and detergent (for surfaces like the toilet seat).

During the seven days after your chemotherapy, if your clothes or bedding come into contact with your urine, bowel motion or vomit, wear disposable gloves (you can buy these at the supermarket) and place the articles in the washing machine (by themselves) for two full cycles. Use hot or cold water and clothes washing detergent. When washing is completed, hang the articles on the washing line or dry them in a clothes dryer. Once clean and dry, items like bed linen can go back into general use.

Side-effects of chemotherapy

The main aim of chemotherapy is to destroy cancer cells. In achieving this aim however, side-effects may occur in some people. Side-effects experienced will depend on the combination of drugs you are having and the combined effects of the drugs with other treatments, for example, radiation therapy.

It is important to note that:

- All precautions are taken to prevent or minimise unwanted effects;
- The effects of the various drugs differ widely in type and degree;
- Not all drugs cause side-effects;
- For many people the side-effects are minimal;
- Each person's reaction is individual and not everyone will have side-effects;
- Whether or not these side-effects occur is in no way related to whether treatment is successful; and
- Almost all side-effects are temporary and will gradually disappear once the treatment has stopped.

The main areas of your body that may be affected by chemotherapy are those where normal cells rapidly divide and grow.

These cells are found in:

- Bone marrow – where blood cells are made.
- Digestive tract – this includes the mouth, throat or oesophagus, small and large bowel and the rectum.
- Skin and hair.
- Reproductive organs.

Side-effects and ways to manage these side-effects are described in the following pages. Remember, not all people will experience these side-effects and side effects will vary from person to person. Ask your doctor or nurse about the likely side-effects from your individual treatment and ways to manage them. We suggest that you read briefly through this section and concentrate on the ways to manage the side-effects that are of concern to you.

Blood cells

Blood cells are made in the body by the bone marrow.

The types of blood cells are:

- **Red cells** – which prevent anaemia and carry oxygen to all the body's cells.
- **Platelets** – which help to clot blood and prevent bleeding/bruising.
- **White cells** – which fight infection.

Because chemotherapy can often affect the production of blood cells by the bone marrow, you will have regular blood tests called full blood counts throughout your treatment period. The blood tests will tell your doctor how you are doing medically and how the chemotherapy is working.

Low red blood cells

Low red blood cell count is less common than low platelets or white cells. However, if your red blood cell count is low you become anaemic and feel tired, lethargic, dizzy or even breathless. If this happens your doctor may suggest a blood transfusion to help build up your stores of red blood cells.

Low platelet count

Platelets help to clot blood. A decrease in the number of platelets can result in bleeding, for example, bleeding from the nose and gums, or in the urine or bowel movements. You may find that you bruise easily when platelets are low and skin bruising can sometimes look like a spotty red rash. If this occurs you should notify your doctor.

To avoid injury if your platelet count is low:

- Use a soft toothbrush;
- Be careful when using sharp objects such as knives, razors and scissors and tools;
- If you do cut yourself, apply pressure with a clean cloth for several minutes. If the bleeding does not stop or the area swells, see your doctor; or
- A low platelet count can be treated with a platelet transfusion.

Low white blood cells

White blood cells protect against infection. If your white blood count is low you are more likely to pick up a cold or other infections. It is especially important to prevent and treat infection during chemotherapy.

If you have any signs of infection you should contact your doctor immediately.

Signs of infection may be:

- A fever 38°C, (100.5°F), or higher;
- Chills;
- Cough or;
- A burning feeling when passing water (urine).

Infections can be treated using medications. Please consult your doctor for further information.

If you have had infections during treatment or your white blood cells recover too slowly for your next treatment, your doctor may prescribe medication that reduces the risk of low white blood cells. Other options include a delay to your next treatment or a reduced dose of chemotherapy in the next course.

To decrease the risk of infection:

- Wash your hands before and after eating;
- Wash your hands after you go to the toilet and;
- Avoid contact with people who have a communicable disease such as a flu, cold sore, conjunctivitis, measles, mumps.

Food hygiene

When your white cell count is low during chemotherapy, particular care needs to be taken with food preparation. Food poisoning can result from eating contaminated food. Most food poisoning results from improper handling of food. You can help protect yourself by following basic food safety rules.

Food handling

- Always wash your hands with soap before handling and eating food.
- Use separate boards and utensils for raw and cooked foods, and once finished clean thoroughly with hot, soapy water.
- Wash fruits and vegetables well and peel wherever possible.

Food storage

- Keep raw and cooked foods separated.
- Never eat food or drinks past their 'use by' or 'best before' dates.
- Where possible, eat freshly cooked and freshly prepared foods.

Temperature control

- Never leave uncooked or cooked food at room temperature for any longer than necessary.
- Food not going to be eaten immediately should be put in the fridge, in a sealed container.
- Defrost foods in the fridge or in the microwave.

Hints

- Do not purchase pre-made sandwiches or salads.
- Take care when eating out - ensure fresh food is well cooked and hot (or cold) enough and avoid salad bars and take-away meals.
- Avoid raw, rare and partially cooked fish, shellfish, meat, poultry and eggs.
- Avoid soft, ripened cheese. Avoid delicatessen produce, and unpasteurised dairy products. For example blue vein or brie.
- Avoid soft serve ice-cream and drinks made with soft serve ice-cream.

Fatigue

Fatigue is common for people receiving chemotherapy. This is because your body is using a lot of energy to rebuild normal cells. Fatigue commonly builds up over the time of your treatment especially if you have had prior surgery or radiation therapy. Fatigue may continue for a few months following treatment.

This will vary for each person. Signs of fatigue may include feeling worn out, a heavy feeling in arms and legs, or finding it difficult to do daily activities or to think clearly.

Managing fatigue

- Take rest breaks during the day.
- Keep activity or exercise for early in the day and stick to a routine of light regular exercise, such as short walks.
- Evidence suggests that maintaining a light exercise program during treatment can increase well being and reduce fatigue.
- Discuss your exercise routine or daily activities with your doctor, nurse or physiotherapist.
- Spread out activities during the day. If possible ask family or friends to help.
- Temporarily, you may want to try new, quieter activities such as handicrafts or reading.
- Learn and practice relaxation.

If you feel tired when you wake up or are you not sleeping well at night, tell your doctor or nurse.

If you have a job, it may be possible to take a few weeks off work or to reduce your hours at work while you are having treatment. Many people benefit from a holiday from their work and other responsibilities after completing chemotherapy. Your energy will return as your body recovers from treatment.

If you have any questions or concerns speak to your doctor or nurse.

Mouth and throat

Because the cells in the digestive tract are rapidly growing, chemotherapy drugs can affect the cells lining the mouth and throat causing soreness, ulcers and difficulty swallowing. Difficulty with chewing or swallowing may lead to loss of weight and this may slow down your recovery. Below are some suggestions to help you.

- Change the texture of ordinary meals. Remember, it is possible to eat the same meals that are prepared for the rest of the family. For example, extra gravy, sauce or milk can be added to stews and soups to produce a more liquid consistency.
- Use a blender or food processor to make food preparation easier. Foods can be blended to the most suitable consistency with gravy, milk or cream. If a blender is not available, try mashing your food instead.
- Avoid extremes of temperature. Allow foods and drinks to come to room temperature.
- Avoid spicy and highly seasoned foods that may irritate your mouth and throat. Coarse foods such as nuts, seeds, grains and fruits may also cause problems. Soft bland foods may be easier to chew and swallow.
- Don't be afraid to experiment. If a particular food is not tolerated in one form, try it in another.
- Nourishing drinks such as milkshakes, fruit smoothies and supplements such as Sustagen and Ensure add extra nutrition to your diet to help maintain your weight. Avoid drinks that contain raw eggs over your treatment period.

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- It is recommended that you avoid cigarettes, alcohol, acidic foods like orange juice and tomatoes.
 - Sometimes people find a change in taste also occurs temporarily. To help with this try using herbs in your cooking. You may also wish to consult the dietitian at your hospital.

Refer to Cancer Council Queensland’s booklet ‘Understanding Nutrition’ for more information on nourishing drinks and supplements.

Mouth care

Brush your teeth after meals with a soft toothbrush. Your doctor or nurse will advise on a suitable mouthwash. Use a lip balm to keep your lips moist and if swallowing is difficult, contact your doctor.

Nausea and vomiting

In the past, nausea and vomiting have been a troubling side-effect of chemotherapy. However, treatment now includes drugs that help to stop vomiting and decrease nausea (antiemetics). This means that nausea and vomiting associated with chemotherapy is generally well controlled. For some people, nausea and vomiting may occur while you are having chemotherapy. You will receive medication/s before your chemotherapy to try to prevent this. You will also be given some antiemetic medication to take home.

If nausea and vomiting still occur, please discuss this with your doctor or nurse as other medicines can be given.

Below are some suggestions, which may help.

- Eat small amounts of food often. For example, eat six small meals a day instead of three large ones. Take at least one or two bites of food each hour to keep some food in your stomach. An empty or full stomach can cause discomfort and make nausea worse.
- If you are prone to nausea around treatment time, it may be best not to eat large amounts prior to treatment. A light snack such as sandwiches, biscuits and cheese and regular sips of dry ginger ale or lemonade are good especially if you need to wait around at the treatment centre.
- Regular sips of clear cool drinks are helpful, especially if you don't feel like solid food. Take whatever liquids you feel you can handle – clear soups, jelly, fruit juice, icy poles or ice cubes made on your favourite drink. Sipping a fizzy drink sometimes helps when feeling sick. Try lemonade or ginger ale and sip it slowly.
- If you wake up feeling nauseated, eat a dry biscuit or slice of toast rather than attempting a full meal straight away or going without. Having a small snack before you get up, or whenever you feel nauseated, often helps.

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- Avoid greasy, fatty or fried foods. Plain foods may be better tolerated than spicy foods.
 - If the smell of cooking causes nausea, the following suggestions may help:
 - Make more use of cold foods, for example, salads, sandwiches and milk puddings;
 - Try ready prepared foods; and
 - Avoid the kitchen while meals are being prepared.

If you experience any nausea or vomiting, always inform your doctor or nurse. There are several medications which can help with this problem. If one doesn't work your doctor may prescribe another.

Diarrhoea and constipation

Although these effects are less common, they may occur. Talk to your doctor about suitable medications that can be prescribed. Below are some suggestions, which could also help you.

While diarrhoea persists cut down your fibre intake by:

- Eating less wholemeal and wholegrain bread, cereals and pasta. Substitute these foods with white bread and refined cereals, for example, Cornflakes, Ricebubbles and Nutrigrain. Also, pasta made with white flour;
- Eating fruit stewed, tinned or pureed rather than raw or dried. Eat vegetables cooked rather than raw. When possible, remove all skins and seeds;
- Avoiding legumes, nuts and foods such as baked beans, lentils, soya-beans and chick peas;
- Drinking plenty of fluids to replace the water lost with diarrhoea;
- Choosing plain bland foods and avoid highly spiced or fried foods. Take small, frequent meals, and try to eat slowly; and
- Limiting or avoiding alcohol, fruit juices, cola drinks and strong tea or coffee. These fluids may further stimulate the bowel.

For relief of constipation, try to follow these tips:

- Each day, drink at least 8-12 glasses of fluids preferably water or nourishing fluids such as milk drinks and fruit smoothies. Tea and coffee may be consumed in addition to this allowance.
- It may also help to increase the amount of fibre in your diet, so try to use the following regularly:
 - Wholemeal breads, cereals and pasta;
 - Fresh and cooked fruit and vegetables. Include the skins and seeds when possible. Fresh pear juice and prune juice are possible alternatives especially for those people on fluid diets;
 - Legumes, nuts and foods such as baked beans, lentils, soybeans and chickpeas; and
 - It is preferable to manage constipation with the high fibre foods listed above rather than using fibre supplements.
- Regular meals help to maintain regular bowel habits;
- A hot beverage may stimulate the bowel; and
- Participating in some form of regular exercise, such as walking, may also help.

Always inform your doctor of any change in your usual bowel habit.

Call the Cancer Council Helpline on 13 11 20 for a copy of the booklet 'Understanding Nutrition.'



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Hair loss

Some but not all chemotherapy drugs cause hair loss. **This effect is temporary.** If you lose your hair it will grow back when all your chemotherapy is completed.

If you are receiving chemotherapy that causes hair loss you may like to organise a wig before you lose your hair. Hair loss may occur at any time during treatment but it is more likely to happen within the first three to four weeks.

If you have a health care card you may be eligible for government financial assistance for purchase of a wig. Contact your local major public hospital to organise this. Alternatively, if you have private health insurance contact your insurer to find out whether a rebate is provided for wigs (most do).

Some people prefer to wear a turban, scarf, cap or beanie. You should avoid sunburn on the scalp. In cold weather you should also avoid losing heat from your head by keeping your scalp covered. Remember when treatment stops, your hair will grow back. Sometimes when the hair grows back it is a different colour or texture.

For information relating to hair loss and the wig and turban service, contact the Cancer Council Helpline on 13 11 20, Monday to Friday.

Sex and fertility

Chemotherapy can affect a person's sex life and fertility. Any changes that occur are often temporary and short term. However, permanent affects may occur. It is important that you discuss the potential changes with your doctor or nurse.

Tiredness and feeling unwell during treatment may reduce your desire or ability to have sex. In addition, it is normal for people with cancer to be experiencing a range of concerns that lead to feeling disinterested in sex. Partners may also feel concerned that they may injure the person while having sex. The desire and ability to have sex should return when you are feeling well again.

Pregnancy should be avoided if either partner is having chemotherapy. This means it is important to use contraception – please discuss this with your doctor or chemotherapy nurse. If you think you might already be pregnant, inform your doctor or nurse immediately.

Women who are still having menstrual periods will sometimes experience irregular periods during chemotherapy. Some women may find that menstruation stops. If this happens hot flushes may also occur. Discuss these changes and how to manage them with your doctor or nurse.

Some drugs used in chemotherapy may cause temporary or permanent infertility. If this is likely to occur, your doctor should discuss this with you prior to commencing treatment. Freezing and storage of sperm or eggs should be undertaken before treatment commences. Discuss this procedure with your doctor. A change in fertility does not mean you are unable to have sex.

Other side-effects of chemotherapy on the body

There are other side-effects that occur with particular drugs and are often related to the type of drug and dose of the drug given. These include:

- Tingling and weakness in hands and feet.
- Change in the colour and odour of urine.

If you have any side-effect or symptom tell your doctor or nurse.

Emotions

The diagnosis of cancer may cause a wide range of emotional responses – denial, anger, depression, frustration, sadness for both you and your family. Cancer Council Queensland's booklet 'Understanding Emotions' may help you understand these responses. Contact the **Cancer Council Helpline on 13 11 20**, Monday to Friday, for more information.

Questions you might have about your treatment

Can I take other medicines while I am having chemotherapy?

Some medicines may interfere with the effects of your chemotherapy. You should take a list of all your medications to your doctor before you start chemotherapy. Remember to include over-the-counter drugs such as laxatives, cold pills, pain relievers and vitamins. Your doctor will tell you if you should stop taking any of these medications before you start chemotherapy. After your treatment begins, be sure to check with your doctor before taking any new medicines or stopping the ones you are already taking.

Will I be able to work during chemotherapy?

Most people are able to continue working while they are being treated with chemotherapy. It may be possible to schedule your treatment sessions so they interfere with work as little as possible. If chemotherapy makes you very tired, you might want to think about adjusting your work schedule for a while. Speak with your employer about your needs and wishes at this time. You may be able to agree on a part-time schedule, or explore other possibilities such as working from home.

Can I go on holidays during my treatment?

Ask your doctor if you can go on holidays during your treatment. Your treatment may fit in around your holiday, or you may be able to arrange for treatment at another hospital while you are away. If you do go away, you will need to take a letter from your doctor outlining your condition and treatment in case you become sick.

Can I drive while I am having chemotherapy?

It is advisable to get someone else to drive you to and from the hospital for the first treatment, as it is difficult to know how you will feel after the treatment (for example, you may experience nausea). Check with your doctor about driving after each treatment as some drugs can make you drowsy and it could be unsafe to drive. Usually it is fine to drive between treatments. If you need help with transport, ask your nurse, social worker or welfare worker or contact the **Cancer Council Helpline on 13 11 20** for options available to you.

Will I need to travel to a major town or capital city for treatment?

Some treatments for cancer may require you and a family member to move/travel to a major town or capital city for your treatment. Check with your doctors if this is the case. If you need to relocate, speak to your doctors, local public hospital or social workers. Travel assistance and accommodation assistance may be available. You can also contact the **Cancer Council Helpline on 13 11 20** for more information about this.

Biological therapy

Biological therapies are treatments that support and enhance the body's immune system to fight cancer and its effects. Some of these treatments are relatively new and are under ongoing development, and some are part of standard treatments for certain cancers.

Biological therapies can sometimes be used in conjunction with chemotherapy regimens. Biological therapies are sometimes called targeted treatments because they 'target' genes that are not behaving in the usual way. Biological therapies also include treatments that may be used to control side-effects of treatments such as chemotherapy. An example of this would be growth factors which help with bone marrow recovery. Many of the substances used for biological therapies are naturally occurring. Your doctor will advise you if this form of treatment is right for your cancer type.

How do biological therapies work?

Biological therapies:

- Target cancer cells and stop or slow their growth;
- Assist the immune system to destroy cancer cells; and
- Keep the cancer from spreading to other parts of your body.

Some types of biological therapies are:

- Growth factors;
- Interferon;
- Interleukins;
- Vaccines; and
- Monoclonal antibodies.

Possible side-effects of biological therapies:

- Rash or swelling at the injection site;
- Flu-like symptoms such as fever, chills, nausea, vomiting, loss of appetite, fatigue, bone pain, muscle aches and headaches; and
- Lowered blood pressure.

Some of these therapies are under development and are currently being used in clinical trials. Your doctor will discuss all available treatments with you. Should you have any questions or require further information about biological therapies, please contact the **Cancer Council Helpline on 13 11 20**, Monday to Friday, or contact your treatment centre.

Clinical trials

During your treatment you may be asked to participate in clinical trials.

Clinical trials are research studies which investigate or examine ways to improve health care. Each clinical trial or study tries to answer scientific questions and find better ways to prevent, diagnose or treat cancer. Clinical trials test many types of new treatments, including new chemotherapy drugs.

A clinical trial is one of the final stages of a long and careful cancer research process. The search for new treatments begins in the laboratory, where scientists first develop and test new ideas. To reach the clinical trial stage, there has been a lengthy series of scientific experiments and promising evidence of therapeutic value before the treatment can be administered to people with cancer. The clinical trial represents the step from laboratory experiments to the establishment of a valued treatment for cancer, and is an essential step in the development of improved treatments for cancer.

If you would like to know if you are eligible for a clinical trial, ask your doctor.

If you would like more information about clinical trials, call the Cancer Council Helpline on 13 11 20, Monday to Friday.

Talking to your doctor

Getting all the facts about your cancer and its treatment may help you to feel more in control. We often spend time worrying about things when a simple question can put our mind at ease. Here are some tips for communicating with your doctor.

1 Talk with your doctor when you have questions or concerns.

Be prepared before you talk with your doctor by writing down your questions as you think of them.

2 Take someone with you.

Have a family member or a friend with you so they can ask questions, write down the answers and help you understand the information.

3 Don't be afraid to ask.

If you have questions of a confidential nature about any aspect of your treatment, don't hesitate to ask your doctor. For example, you may have questions about the cost of drugs and treatment. If your doctor cannot answer these questions, ask to be referred to someone who can.

4 Don't be afraid to interrupt.

Stop the doctor to ask for clarification about technical terms or statements that you don't understand.

5 Write it down.

You may feel more confident if you have information in writing. Ask the doctor to make notes for you. If you can't read the handwriting, let the doctor know.

6 Take your time.

Whenever possible, talk with your doctor when you both are relatively unhurried. If your doctor doesn't have time to sit down and really explain things, suggest an appointment at a specific time when you, a friend or family member and the doctor can talk at length.

If you're not sure what to ask or how much information you need, start by getting your general practitioner's help, for example, **"If you were me, what would you ask?"**

Ways to help yourself

- Maintain reasonable physical fitness and activity within your ability. Try to live as normal a life as possible.
- Maintain a healthy and varied diet. Drink plenty of fluids. Seek the advice of a dietician if difficulties arise.
- Assist your medical team to help you by keeping your appointments, and having blood and other tests ordered for you at the requested time.
- Tell your doctor and pharmacist about any other medications, pills or drugs that you are taking.
- Tell Try relaxation techniques as these can help you cope with side-effects and feel more in control. The physiotherapist or occupational therapist at your hospital or local community health centre may be able to assist you with this and Cancer Council Queensland has a relaxation CD and booklet, available by calling the **Cancer Council Helpline on 13 11 20**.
- Set short term goals. Sometimes when things get tough it helps to keep your goals in mind.
- Maintain a realistic attitude. Admit there will be bad days. Challenge negative thoughts that may be false.
- Seek support from others. Your family and friends may be of great assistance. There are also many other people who could be of support to you. For example, our Cancer Connect program allows you to talk with another person who has had cancer and has been through chemotherapy. We also provide professional counselling through our cancer counselling service and is available for people who may need additional support.

To find out more about the various support services available from Cancer Council Queensland, call the Cancer Council Helpline on 13 11 20, Monday to Friday.

Appendix – Medical terms

Adjuvant therapy

The administration of chemotherapy or radiation therapy after surgical removal of all known cancer to destroy small amounts of undetected cancer.

Benign

A non-malignant tumour, that is, not cancerous.

Bone marrow exam/biopsy

Removal of soft substance within the bones in order to examine cell composition.

Chemotherapy

Treatment of disease with chemicals. Treatment with drugs that destroy cancer cells or stop them from growing.

Combined modality

When chemotherapy is given at the same time as radiation therapy to improve local effects.

CT scan

A painless way of examining body tissue by means of a computerised X-ray technique.

Intravenous (IV)

Injection of solution directly into the vein.

Liver scan

A painless way to examine the condition of a person's liver by means of a computerised X-ray technique, ultrasound or nuclear medical examination.

Lymph nodes

A filtering mechanism in the body, which acts as the first line of defence against cancer cells.

Neutrophils

A type of white blood cell that fights infection.

Oncology

The study, diagnosis and treatment of cancer.

Platelets

Blood cells that perform blood clotting functions.

Primary site

Original location where a cancer first began within the body.

Prognosis

An estimated course of the disease process.

Radiation therapy

The treatment of disease by use of high dose X-ray. The use of controlled high-energy radiation such as X-rays and/or gamma rays to destroy cancer sometimes called radiotherapy or X-ray therapy.

Remission

No evidence of disease.

White cells

Blood cells that fight infection. These cells include monocytes, lymphocytes, neutrophils, eosinophils and basophils.

MRI (Magnetic Resonance Imaging)

A painless way of looking at the body using magnetic fields to obtain a series of cross-sectional pictures of the body.

PET scan (Position Emission Tomography)

A scan which uses a small amount of radioactive material injected into a vein to identify abnormal cells in the body.

Gallium scan

A painless scan where a radioactive materials called gallium is injected into a vein and, over two to three days is attracted to abnormally enlarged lymph nodes. This gallium is viewed with a special camera.

Portacath

An implantable port inserted just under the skin on your chest used for delivering drugs and fluids. The port is attached to a thin tube which enters a large vein and is threaded until the end of the tube lies near the heart.

PICC line

Peripherally inserted central catheter is a thin flexible tube which is inserted into a vein in the crook of the arm and threaded through the vein until the end of the tube lies near the heart.

CADD pump

Continuous ambulatory drug delivers pump. These pumps are used to deliver continuous treatment which allows patents to be treated in the outpatient setting.



For further information,
please feel free to call the

**Cancer Council Helpline
on 13 11 20,**

Monday to Friday,
between 8am and 6pm.



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Cancer Council
Helpline

13 11 20

**For information and support call
Monday to Friday, 8am to 6pm.**

www.cancerqld.org.au