



**This information sheet has been written to help you understand more about chemotherapy. The sheet discusses the support and information your doctors, nurses and the Cancer Society can offer you. We hope it answers some of the questions you may have before and during treatment.**

You will be given more information when you start treatment. We can't advise about the best treatment for you personally. You need to discuss this with your own doctors.

The words in bold in the text are explained in the section "What does this word mean?" which is at the end of the information sheet.

## What is cancer?

Cancer is a disease of the body's **cells**. It starts in our **genes**. Our bodies are constantly making new cells: to enable us to grow, to replace worn-out cells, or to heal damaged cells after an injury. This process is controlled by certain genes. All cancers are caused by damage to these genes. This damage usually happens during our lifetime, although a small number of people inherit a damaged gene from a parent when they are born. Normally, cells grow and multiply in an orderly way. However, damaged genes can cause them to behave abnormally. They may grow into a lump which is called a **tumour**.

Tumours can be **benign** (not cancerous) or **malignant** (cancerous). Benign tumours do not spread to other parts of the body.

A malignant tumour is made up of cancer cells. When it first develops, this malignant tumour may be confined to its original site, a cancer in situ (or **carcinoma in situ**). If these cells are not treated they may spread beyond their normal boundaries and into surrounding tissues (invasive cancer).

Sometimes, cells move away from the original (**primary**) cancer through the blood or lymphatic systems and invade other organs. When these cells reach a new site they may form another tumour. This is called a secondary cancer or metastasis.

## What is chemotherapy?

Chemotherapy is the treatment of cancer using anti-cancer (cytotoxic) drugs. The aim is to kill cancer cells while doing the least possible damage to normal cells.

## How does it work?

Chemotherapy stops cancer cells from dividing and multiplying. It travels through the bloodstream and kills cancer cells in different parts of the body.

## How will I be given chemotherapy?

Sometimes one type of chemotherapy drug is given by itself either as tablets or capsules, or in a 'drip' (IV infusion).

## Cannula

A cannula is a small tube. This is put into a vein in your arm or back of your hand. It is put in by the cancer nurse on the day of your treatment. The cannula is removed after each treatment cycle.

**Source: Macmillan Cancer Support and Cancer Help UK**

More often, two or more drugs are given together. You'll probably be given your drugs by injection or drip into a vein, or via a portable infusion pump.



A woman with a cannula in her hand.

## PICC line

A PICC (Peripherally Inserted Central venous Catheter) is inserted into a vein through the skin in the bend or upper part of the arm, and threaded through until the end of the tube lies in a vein near the heart.



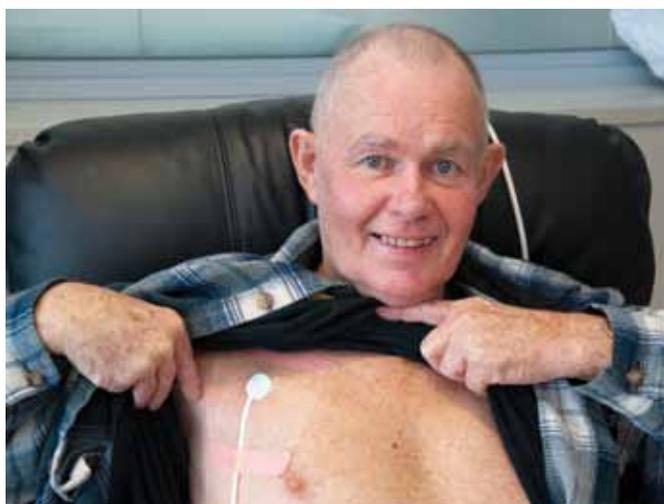
A man with a PICC line in his arm.

## Types of central lines

For repeated or long infusions of chemotherapy or when there is difficulty finding a suitable vein you may need a central venous line. Central lines are put in under a general or local anaesthetic and may be left in for many months.

### Central venous line

A central venous line is a long, thin, flexible tube that is inserted through the skin of the chest into a vein near the heart. Hickman and Groschong lines are both commonly used types of central venous line.



A man with a central venous line in his chest.

### Portacath (an implantable port)

The tip of the line sits just above the heart and the port lies under the skin on your upper chest. Once in place, you can feel and see the port as a small bump underneath the skin. Nothing shows on the outside of your body. To use the portacath, a needle is passed through your skin into a port. The skin over the port can be numbed with an anaesthetic cream first.



A man with a portacath line receiving chemotherapy.

## Possible problems with central lines

The two main possible problems with central lines are blockage and infection. Contact the hospital immediately if you have any concerns.

## How will my doctors decide on the type of chemotherapy?

The type of treatment your cancer doctor chooses for you depends on what type of cancer you have, how far it has spread, and your general health. Everyone is different; treatments are designed for the individual.

## How long will my treatment last?

Your treatment could last several weeks or several months. You'll probably get one dose of the treatment at a time or over a few days, and then you'll be given a rest before having the next treatment. Treatment cycles are usually two to four weeks apart. Spacing out your treatment in this way gives your body a chance to recover from any side effects.

## What can I expect from chemotherapy?

### When you arrive at the hospital for chemotherapy

Often, you will have a blood test first, and your doctors must wait for the result to check that your blood count is okay before they can give you the treatment.

You will be checked by the cancer nurse or doctor to make sure you have no problems, and are able to have treatment that day.

### Does chemotherapy hurt?

No, not usually. If you have a drip (IV infusion), you'll feel a brief sting as the needle goes in, but then the pain should stop. However, if the pain continues, or starts during the infusion, let the cancer nurse know immediately.

## Will I have to stay in hospital?

Most people have their treatment as an outpatient. Usually, you have to spend a few hours at the hospital for each treatment. Some people stay in hospital overnight or longer, depending on treatment.

## Side effects

The side effects that you might experience depend on the drugs you receive. Ask your cancer doctor or nurse what to expect and how to deal with it.

Most side effects are temporary. Side effects usually disappear shortly after the treatment stops. However, some side effects are permanent.

## Infection and fever

**If fever develops (if your temperature is 38 degrees or more) or you feel unwell, even with a normal temperature, don't wait to see what happens—take action quickly. Contact your cancer doctor or nurse and follow the advice given.**

## Feeling tired

Fatigue/tiredness is a very common side effect of chemotherapy. For more information see the Cancer Society's information sheet "Cancer-related fatigue" on our website ([www.cancernz.org.nz](http://www.cancernz.org.nz)).

## Feeling sick or vomiting

Not everyone feels sick after chemotherapy, and anti-sickness medication has greatly improved over the last decade.

If you do feel sick you'll find that it usually starts several hours after treatment and may last for a few hours. It is important to take your anti-sickness medication exactly as prescribed. If you continue to feel sick or vomit for longer than 24 hours, contact your cancer nurse or doctor.

## Not wanting to eat

You may have no problems with your appetite during treatment, or you may not feel like eating at all. For more information read the Cancer Society's booklet *Eating Well During Cancer Treatment/Kia Pai te Kai i te wā Maimoatanga Matepukupuku* on our website, pick up a copy at your local Cancer Society or call the Cancer Information Helpline **0800 CANCER (226 237)**.

## Sore or dry mouth or throat

If your mouth is very sore or if you get ulcers or thrush (a white coating in the mouth) see your doctor or nurse straight away for advice on treatment.

It is important to keep your teeth, gums and mouth very clean during your treatment to help stop infections. The nurses can give you advice on how to do this. Use a very soft toothbrush or a cotton bud for your teeth and gums, and avoid vigorous or rough brushing.

## Hair loss

Some people don't lose their hair, while others lose all their head and body hair. Whether this happens to you depends on what drugs you are given. Ask your cancer doctor if you are likely to lose your hair. Your hair will grow back again when your treatment stops. It takes between 4 and 12 months to grow back a full head of hair.

Many people find losing their head hair very upsetting. Try to remember that it will grow back. Until it does, you might want to wear a wig. Spend some time choosing one that suits you. The government helps pay for the cost of a wig. You must get a certificate from your cancer doctor that states you are entitled to a wig.

## Numbness and tingling (peripheral neuropathy)

Some drugs cause tingling and loss of feeling in fingers or toes or both, muscle weakness (particularly in the legs), or a change in hearing, or ringing in the ears. If this happens, let your cancer doctor or nurse know before your next treatment. A slight change in your treatment may be needed.

## Bruising or bleeding

Contact your cancer doctor or nurse immediately if you have any unexplained bleeding or bruising.

## How will I know my treatment is working?

You may be able to tell if your treatment is working by improvement in symptoms. Sometimes only your cancer doctors can tell you whether the chemotherapy is working. They do this by talking to you, examining you and carrying out blood tests and scans.

Sometimes it is necessary to have many tests during treatment to see how the treatment is working.

## What happens when the treatment ends?

As during your treatment, only do what you feel comfortable doing. You may be able to return to your normal life immediately, or build up to it a bit at a time, or you may be going on to another form of treatment and so need to take it easier for a bit longer. Continue to ask for help if you need it. It is always better to ask than to do too much.

## Relationships and Sexuality

The side effects of chemotherapy may mean that you do not feel like having sex because you feel unattractive, too tired, and nauseous, or are in pain.

It is important to keep communication open with your partner—for both of you to share your fears and needs. The Cancer Society has a booklet you may find useful titled *Sexuality and Cancer/Hokakatanga me te Matepukupuku*. Phone your local Cancer Society office for a copy of this booklet, call the cancer nurses on the Cancer Information Helpline **0800 CANCER (226 237)**, or download it from our website at ([www.cancernz.org.nz](http://www.cancernz.org.nz)).

## Support

### Emotional support

It may be helpful to talk about your feelings with your partner, family members, friends, or with a counsellor, social worker, psychologist or your religious/spiritual adviser. Talking to other people with cancer may also help.

Phone your local Cancer Society office for a copy of the booklet *Emotions and Cancer* call the cancer nurses on the Cancer Information Helpline **0800 CANCER (226 237)**, or download it from our website at ([www.cancernz.org.nz](http://www.cancernz.org.nz)).



### Talking to children

How much you tell children will depend on how old they are. Young children need to know that it is not their fault. They also need to know that you may have to go into hospital. Slightly older children can probably understand a simple explanation of what is wrong. Adolescent children can understand much more.

All children need to know what will happen to them while you are in hospital, who will look after them and how their daily life will be affected.

Phone your local Cancer Society office for a copy of this booklet *Cancer in the Family* call the cancer nurses on the Cancer Information Helpline **0800 CANCER (226237)**, or download it from our website at ([www.cancernz.org.nz](http://www.cancernz.org.nz)).



## Information and Support

The Cancer Society provides confidential information and support. Talk about your concerns and needs with experienced cancer nurses on the Cancer Information Helpline **0800 CANCER (226 237)**.

It is important to let your cancer doctor know if you are taking any complementary or alternative therapies because some treatments may be harmful if they are taken at the same time as conventional treatments.

### Interpreting services

New Zealand's Health and Disability Code states that everyone has the right to have an interpreter present during a medical consultation. Family or friends may assist if you and your cancer doctor do not speak the same language, but you can also ask your cancer doctor to provide an interpreter if using family members is inappropriate or not possible.

### Diet and food safety

A balanced nutritious diet will help to keep you as well as possible and cope with any side effects of treatment. The Cancer Society's booklet called *Eating Well During Cancer Treatment/Kia Pai te Kai i te wā Maimoatanga Matepukupuku* gives useful advice and recipes. Phone your local Cancer Society office for a copy of this booklet, call the cancer nurses on the Cancer Information Helpline **0800 CANCER (226 237)**, or download it from our website at ([www.cancernz.org.nz](http://www.cancernz.org.nz)). The hospital will also have a dietitian who can help.

### Questions you may wish to ask

Ask as many questions as you want to. It's easy to forget the questions you want to ask when you see your cancer doctor or nurse, so you may like to write them down as you think of them and take your list with you to your appointment.

## What does that word mean?

**benign** – a tumour that is not malignant, not cancerous and won't spread to another part of your body.

**carcinoma in situ** – a malignant tumour that is confined to its original site.

**cells** – the 'building blocks' of the body. A human is made of millions of cells, which are adapted for different functions. Cells are able to reproduce themselves exactly, unless they are abnormal or damaged, as are cancer cells.

**genes** – the tiny factors that govern the way the body's cells grow and behave. Each person has a set of many thousands of genes inherited from both parents. Genes are found in every cell of the body.

**malignant** – a tumour that is cancerous and likely to spread if it is not treated.

**primary** – a malignant tumour starts in one site of the body where it is known as the primary tumour.

**tumour** – a swelling or lump. Tumours can be benign (not cancerous) or malignant (cancerous).

## Suggested websites

The following websites have information on chemotherapy:

Macmillan [www.macmillan.org.uk](http://www.macmillan.org.uk)

Cancer Council of Victoria (Australia)  
[www.cancervic.org.au](http://www.cancervic.org.au)

National Cancer Institute (USA)  
[www.cancer.gov/cancerinfo](http://www.cancer.gov/cancerinfo)

**The suggested websites are not maintained by the Cancer Society of New Zealand. We only suggest sites we believe offer credible and responsible information, but we cannot guarantee that the information on such websites is correct, up-to-date or evidence-based medical information.**

Photography by Louise Goossens.