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# **Chemotherapy**

# **Information for Patients**

**Chemotherapy** is the use of medicines to treat cancer.

The drugs circulate in the blood stream to all parts of the body and attack rapidly growing cells, including cancer cells.

However, chemotherapy also causes temporary damage to normal cells, which leads to side effects. **Most side effects are short term and reversible.**

The benefits of treatment vary for different patients depending on the type of cancer and how advanced it is. Chemotherapy can be used to:

- **Cure cancers** – chemotherapy destroys cancer cells
- **Reduce the chances of a cancer coming back** – chemotherapy can kill cancer cells that may be present in the body but are too small to detect; killing these cells prevents some patients going on to suffer a cancer recurrence in the future.
- **Relieve symptoms** – chemotherapy may shrink a tumour and therefore ease some or all of the symptoms it causes.

Chemotherapy can be given:

- **By mouth (oral)**: as a tablet or capsule which can be taken at home. The chemotherapy staff will monitor the treatment carefully.
- **By injection into a vein (intravenous)**: as either a short injection or a longer infusion over some hours in hospital, usually as a day case.
- **By subcutaneous injection (into the skin).**

Some treatments involve a combination of intravenous and oral chemotherapy.

The number and frequency of treatments depends on the type of treatment you are having. Each treatment is followed by a rest period of between one to three weeks. This is called a cycle. Some treatments require more than one visit per cycle.

Most treatments are given once every 21 days for 6 cycles.

Depending upon your condition and the reason for the chemotherapy, the treatment will continue for between 9 and 24 weeks.

Occasionally patients will be maintained on chemotherapy indefinitely.

A blood test is usually required before every chemotherapy cycle to make sure you are fit enough to proceed with treatment.

The staff will discuss the timing of your individual treatment with you before it starts.

# Chemotherapy – The risk of infection

## Important information

Chemotherapy makes patients more susceptible to infection (this is known as neutropenia).

**An emergency helpline is given to all patients needing advice if they might be suffering infection whilst on chemotherapy.**

Early treatment with antibiotics can prevent potentially life-threatening infections so it is essential to notify the chemotherapy team if you suffer any of the following:

- Temperature of 38 degrees or more
- Chills and shivering
- Symptoms of an infection
  - Cough
  - Sore throat
  - Wound infections
  - A burning sensation when passing water
  - Diarrhoea

Some chemotherapy drugs reduce the number of blood cells made in the bone marrow. Patients receiving these drugs will be given an injection the day after each treatment to stimulate their immune system and reduce the risk of infection.

**Prompt treatment of infection with antibiotics is very effective but delayed treatment can lead to life-threatening complications. If in doubt, please contact the emergency helpline.**

## Chemotherapy - side effects

Different chemotherapy drugs may cause different side effects.

People react differently to treatment – some people have very few side effects while others have more.

Almost all side effects are short term and gradually disappear once the treatment stops.

It is very important to tell your nurse or doctor if treatment is making you feel unwell.

Changes can be made during treatment that can help reduce the side effects.

### **Fatigue (tiredness)**

Most patients get tired during chemotherapy.

The tiredness usually builds up with successive treatments.

Regular gentle exercise may help combat the symptom of fatigue.

It may take some months for energy levels to recover completely following treatment.

### **Nausea and vomiting**

Some chemotherapy drugs can make patients feel sick (nausea) or actually be sick (vomiting).

There are very effective medicines to prevent and control nausea and vomiting.

Most patients receive standard anti-sickness drugs before and for a few days after each treatment.

Occasionally alternative anti-sickness drugs may be required if patients feel or are very sick with their first treatment.

### **Diarrhoea and constipation**

Some chemotherapy drugs can cause diarrhoea; others may cause constipation.

Dietary measures and medicines can help reduce diarrhoea and constipation.

## **Hair loss**

Not all chemotherapy drugs cause hair loss.

However, some treatments cause hair thinning or even complete hair loss.

Some patients also lose body hair, including eyebrows and pubic hair.

Hair begins to fall out 10 to 14 days after the first treatment. Hair loss is temporary; your hair will grow back when the treatment has finished.

The scalp may feel uncomfortable when the hair begins to fall out. If the scalp becomes dry and itchy moisturising cream can help.

'Scalp cooling' (also known as a 'cold cap') can be used with some chemotherapy treatments to help prevent hair loss. Your nurse will be happy to discuss if this is suitable for you.

If you require a wig, please talk to your nurse, who will be able to help.

## **Mouth soreness (mucositis)**

Some patients experience a sore mouth or mouth ulcers during chemotherapy.

Other patients suffer watery or gritty eyes or a sore nose with occasional nose bleeds.

Your nurse or doctor will advise on appropriate interventions. The symptoms usually improve over a few days.

## **Altered taste**

Chemotherapy can cause changes in the sense of taste.

Some patients experience a metallic taste; others lose their sense of taste altogether.

This usually resolves quickly after treatment is complete.

## **Nails and skin**

Finger and toe nails may grow poorly or become brittle during chemotherapy. It can take many months for new nails to regrow.

It is very rare for chemotherapy drugs to cause rashes but you should report any skin changes to your doctor or nurse.

A few chemotherapy drugs can cause redness or tenderness in the hands and feet which sometimes requires an interruption in treatment before the symptoms resolve.

### **Allergic reactions**

Reactions to chemotherapy drugs are rare but in the unlikely event you suffer one it will almost certainly occur in hospital, during the infusion.

The chemotherapy nurses are well trained to deal with allergic reactions. Most patients suffer no long term harm if they react to a drug infusion.

### **Steroid side effects**

Steroids are effective at preventing sickness and many patients receive a short course of steroid tablets after each cycle of chemotherapy.

Some patients suffer restlessness, agitation, indigestion and poor sleep during steroid treatment, but these side effects are short-lived.

### **Muscle and joint pains**

Some chemotherapy drugs cause temporary flu-like aches and pains for a few days after treatment. Anti-inflammatory tablets can help.

### **Peripheral neuropathy**

Some drugs cause tingling and numbness in the fingers and toes and others may cause temporary hearing problems or tinnitus.

With most drugs, this resolves over time.

### **Blood clots: DVT and PE**

Blood clots in the calves (Deep Vein Thrombosis, DVT) or lungs (Pulmonary Embolus, PE) are more common in patients on chemotherapy, especially patients with PICC lines or portacaths (devices used to facilitate easy delivery of chemotherapy) in place, though blood clots still only occur very rarely.

Please report swollen legs or breathlessness to your doctor or nurse.

## **Heart problems**

In extremely rare cases some chemotherapy drugs and certain antibody treatments can cause weakening of the heart muscle.

Heart function is always assessed before and during treatment where indicated and, where necessary, cardiac medication may be required.

## **Kidney function**

Many drugs are expelled from the body via the kidneys. It is important to maintain a good fluid intake (at least 2-3 litres a day) during treatment.

The kidney function will be monitored during treatment with regular blood tests.

## **Chemotherapy leakage out of the vein (extravasation)**

During administration, intravenous drugs may leak out of the vein.

It is important to report any pain experienced during the infusion to your nurse who will then take appropriate action.

## **Fertility**

Young patients can become infertile after treatment. If this is a risk your doctor will have already discussed the implications with you.

All patients should use barrier contraception during chemotherapy.

# Chemotherapy – FAQs

## How does chemotherapy affect my blood count?

Chemotherapy can temporarily lower the numbers of one or more of the three main types of blood cells the body produces:

**White blood cells fight infection:** resistance to infection is lowered when the white blood count drops. White cell numbers usually improve without any treatment but injections (also known as GCSF) may be prescribed to aid white cell recovery.

**Red blood cells carry oxygen:** occasionally chemotherapy causes mild anaemia, which might lead to tiredness, breathlessness and dizziness. This usually settles without treatment but sometimes requires a blood transfusion.

**Platelets help the blood clot.** Low platelet counts can cause nose bleeds, easy bruising or bleeding and gum bleeding when brushing your teeth. The platelet count usually recovers but very rarely a platelet transfusion may be necessary.

Some combinations of chemotherapy drugs are more likely to cause a low white blood cell count. Patients on these treatments will be given GCSF blood count injections the day after each cycle of chemotherapy to minimise the risks of infection.

For other chemotherapy treatments, GCSF may be given to patients who suffer repeated low white blood counts.

## Will I need a venous access device?

Most patients can safely receive intravenous chemotherapy through a temporary drip (cannula) placed in the vein in the arm on the day of treatment. This is removed the same day, before the patient goes home.

Occasionally a more permanent form of access to the vein may be required to administer chemotherapy. These devices usually stay in for the duration of the treatment. Different types of venous access device are used:

- **PICC lines** (peripherally inserted central catheters): a fine tube passed into a vein in the arm under local anaesthetic. The line can be used both to take blood and to give chemotherapy.
- **Portacaths** contain a small chamber placed under the skin inserted into a vein, usually in the chest.

Your chemotherapy nurse will let you know if you need a venous access device.



### **How is the treatment monitored?**

Regular appointments will be made so that your doctor and chemotherapy nursing team can assess your side effects and ensure you are coping with the treatment.

For most treatments a blood test is required before each session (cycle) of chemotherapy.

### **Can I drive to my appointments?**

For your first treatment, if you travel to hospital by car, it is a good idea for a relative or friend to drive you home again after treatment as you might feel unwell. At other times, if you feel able, you can drive as normal.

### **Who will administer and supervise my treatment?**

Specially trained chemotherapy nurses, working closely with the oncology team, will administer the treatment

All patients are assessed prior to each cycle of chemotherapy, either by a doctor or a senior chemotherapy nurse, in the oncology clinic.

Any necessary modifications to the treatment or anti-sickness drugs will be made in the clinic, so please let the doctors or nurses know which side effects you have experienced.

### **Can I go on holiday during chemotherapy?**

It may be possible to take a holiday in between cycles of chemotherapy. However, delaying the next cycle of chemotherapy for a holiday is not recommended.

Holidays abroad are best avoided until after chemotherapy is complete. Travel insurance for people being treated for cancer can be very costly. More information is available via the [Macmillan Website](#).

### **Can I continue to work during chemotherapy?**

Chemotherapy affects different people in different ways. Some patients are able to lead a near-normal life and continue to work.

### **Can I take my usual medicines?**

Most medication can be continued safely during chemotherapy. Please let the doctors and nurses know which medicines you are taking.

**Can I drink alcohol?**

You may continue to drink alcohol during chemotherapy though it is best avoided for the first few days after each treatment. Many patients go off the taste of alcohol until their treatment is complete.

**Can I take vitamins, herbal remedies and health supplements?**

Some supplements and herbal remedies can interact with chemotherapy so please tell the doctors or your chemotherapy nurse if you are taking any non-prescription supplements.

You may have other questions you want to ask.

Always feel free to ask one of the nurses treating you, or me, if you are concerned.