Chemotherapy for Hodgkin lymphoma

Chemotherapy is the use of anti-cancer (cytotoxic) drugs to destroy the lymphoma cells by disrupting their growth. The drugs can reach lymphoma cells anywhere in the body through the bloodstream.

On this page

- How it is given
- Central lines
- PICC lines
- Implantable ports
- Side effects
- Contraception
- Children and chemotherapy

Our section on chemotherapy discusses the treatment and its side effects in more detail. Information about individual chemotherapy drugs, and combination chemotherapies and their particular side effects, is also available.

How it is given

Chemotherapy drugs may be given as tablets or capsules, or by injection into a vein in your arm (intravenously). A combination of several drugs is normally given over a few days followed by a break of a few weeks. This is known as a cycle of treatment. It allows your body and blood cells to recover from any side effects before the next treatment.

Your treatment will usually last 2-6 months, depending on the stage of your lymphoma. During this time you'll have regular check-ups.

You'll usually have your treatment as an outpatient, but occasionally you may need to stay in hospital for a few days.

The combinations of drugs most commonly used for Hodgkin lymphoma include the following:

- **ABVD** involves the drugs doxorubicin (also known as Adriamycin), bleomycin, vinblastine and dacarbazine (DTIC).
- **ChiVPP** is a combination of chlorambucil, vinblastine, procarbazine and prednisolone (a steroid).
- **BEACOPP** is a more intensive course of chemotherapy involving the drugs bleomycin, etoposide, doxorubicin, cyclophosphamide, vincristine (Oncovin®), procarbazine and prednisolone, which is a steroid.
- Stanford V is a type of chemotherapy that may be given in some situations. It includes the drugs mustine, vinblastine, vincristine, bleomycin, doxorubicin, etoposide and steroids. Stanford V is often given with a course of radiotherapy.
- OEPA, COPP and COPDAC are courses of chemotherapy for children and young adults that use the following drugs in varying combinations: vincristine, procarbazine, doxorubicin, etoposide, dacarbazine, cyclophosphamide and prednisolone. Our cancer support specialists can send you a fact sheet about Hodgkin lymphoma in children.

Other drugs, or combinations of drugs, may also be used.

Central lines

Some people having chemotherapy may find it easier to have it through a central line. This is a long, hollow
A tube made from silicone rubber that is inserted into a main vein in the chest. They are also called skin-tunelled central venous catheters or you may hear them be called Hickman® or Groshong® lines.

Central lines can be put in under a local or general anaesthetic.

The benefit of a central line is that chemotherapy and other drugs can be given through the tube and blood samples can be taken from it. This saves you the pain or discomfort of repeated injections. The line stays in place throughout your treatment and your nurses will show you how to look after it.

Once your treatment is finished, the line is taken out. A local anaesthetic may be used if necessary.

View a large version of the diagram of a central line

**PICC lines**

A **PICC line** (peripherally inserted central catheter) is like a central line, but is put into a vein in the bend of your arm, instead of your chest. You can have a PICC line put in as an outpatient using local anaesthetic.

Your PICC line can also stay in place throughout your treatment and can be used to give drugs or take blood. Once your treatment is finished, the PICC line is easily removed.
Implantable ports

Some tubes end in small ‘ports’ that lie just under the skin of the chest: these are known as implantable ports. The port can be used to give chemotherapy and other drugs, and also to take blood samples. You’ll be given either a local or general anaesthetic before the port is inserted.

Side effects

Chemotherapy can cause unpleasant side effects, but these can often be well controlled with medicines. The main side effects are described here, along with some ways of avoiding or reducing them:

Effects on the blood and bone marrow

Chemotherapy can reduce the number of blood cells made by the bone marrow. Bone marrow is a spongy material that fills the bones and produces the stem cells, which develop into three different types of blood cells:

- red blood cells, which carry oxygen to all parts of the body
- white blood cells, which fight infection
- platelets, which help the blood to clot and control bleeding.

Lowered resistance to infections

If the number of white cells in your blood is low, you’re more likely to get infections as there are fewer white blood cells to fight off bacteria. The main white blood cells that fight bacteria are called neutrophils. When the number of neutrophils in your blood is low, you are neutropenic.
If your temperature goes up or you suddenly feel unwell, even with a normal temperature, contact your doctor or the hospital straight away. Most hospitals consider a temperature above 38°C (100.4°F) to be high, although some hospitals use a lower or higher temperature. The doctors and nurses will let you know when you need to contact the hospital.

Regular blood tests will show the number of white cells in your blood. If you get an infection when your white blood cell level is low, you'll need to have antibiotics. These may be given as an injection at hospital or you may be given antibiotic capsules or tablets to take at home. You may need to be admitted to hospital for the antibiotic treatment.

Blood cells are usually at their lowest level (known as the nadir) 7-14 days after the chemotherapy treatment, although this will vary depending on the type of chemotherapy you are having.

You may find it helpful to read our section about avoiding infection when you have low immunity.

**Anaemia**

If the level of red blood cells (haemoglobin) in your blood is low, you'll become tired and lethargic. You may also become breathless. These are all symptoms of anaemia - a lack of haemoglobin in the blood.

Anaemia can be successfully treated by **blood transfusions**. After a transfusion, you'll feel more energetic and the breathlessness will be eased. A drug called **erythropoietin (EPO)** may also be used to help your bone marrow produce more red blood cells. We have fact sheets about blood transfusions and erythropoietin.

Once you have been diagnosed with Hodgkin lymphoma, any transfusions you have in the future should be with blood or blood products (such as platelets) that have been irradiated. This applies at any stage of treatment. It lowers the risk of the donated blood cells reacting against your own blood cells. You should carry a card or wear a bracelet/necklace sometimes called a Medicalert, so that hospital staff are aware of this in case of an emergency.

**Bruising and bleeding**

If the number of platelets in your blood is low, you may develop blood spots or rashes on the skin (petichiae), bruise easily, have nosebleeds or bleed more heavily from minor cuts.

If you develop any of these symptoms, contact your doctor or the hospital immediately. Some people may need a **platelet transfusion**.

**Feeling sick (nausea) and being sick (vomiting)**

Some of the drugs used to treat Hodgkin lymphoma may make you feel sick and possibly vomit. There are very effective anti-sickness (anti-emetic) drugs available. It’s common for doctors to prescribe anti-sickness drugs to be given just before the chemotherapy starts to try to prevent nausea and vomiting. You might also be given some anti-sickness tablets to take home with you. We can send you a fact sheet about managing **nausea and vomiting**.

**Sore mouth**

Some drugs can make your **mouth sore** and cause small ulcers. Using mouthwashes regularly may help prevent infection - your nurse can show you how to use these properly.

If your sore mouth prevents you from eating during treatment, you could try replacing some meals with nutritious drinks or a soft diet (such as soup, yoghurt or ice cream). The dietitian at the hospital can give you advice. We also have more information about **diet and cancer**.

**Hair loss**

Unfortunately, some of the drugs used to treat Hodgkin lymphoma can make your hair fall out. Ask your doctor if the drugs you are taking are likely to cause **hair loss**. People who lose their hair often cover this up by wearing wigs, hats or scarves. Hospital inpatients can get a free wig from the NHS and your doctor or nurse can arrange for a wig specialist to visit you. However, people being treated as outpatients usually have to pay for their wigs.

If your hair falls out due to chemotherapy, it will normally grow back 3-6 months after the treatment. We have more information about **coping with hair loss**.
Tiredness (fatigue)

Some people feel very tired during chemotherapy. This is normal. Feeling tired all the time can be very frustrating and difficult to cope with, especially for people who normally have a lot of energy. The hardest time may be towards the end of the course of chemotherapy.

Contraception

It is not advisable to become pregnant or father a child while taking any of the chemotherapy drugs used to treat Hodgkin lymphoma, as they may harm the developing baby. It’s important to use effective contraception during your treatment and for a year afterwards. You can discuss this with your doctor or specialist nurse.

You should use condoms if you have sex within the first 48 hours after chemotherapy. This will protect your partner from any drugs that may be present in semen or vaginal fluid.

Although they may be hard to bear at the time, the side effects described in this section will usually disappear within a few weeks of the treatment finishing. For some people, this may take longer.

It’s important to remember that chemotherapy affects people in different ways. Some people find they are able to lead a fairly normal life during their treatment, but many find that they become very tired and have to take things much more slowly. Just do as much as you can and try not to overdo it.

Children and chemotherapy

Missing school

Many children worry about missing school and falling behind with their work. It’s important to reassure them that they will be able to catch up. Your child’s doctor and the social worker at the hospital can help arrange a home tutor for your child during this time.

Social contact

Most children manage to go to school in between their cycles of chemotherapy. It’s important to talk to the teachers about your child’s illness and to ask them to let you know when there are any infections, such as chickenpox or measles, in your child’s class.

It is also advisable not to let your child get too tired, so games and PE are best avoided during treatment.

Your child may be reluctant to go back to school, as they may feel embarrassed about not having any hair. However, it can really help for them to keep in touch with their friends. If this is a problem, discuss it with your doctor and the teachers at the school.

Our section on children’s cancers gives information and suggestions on coping with a child’s illness.

Content last reviewed: 1 December 2011

Next planned review: 2013

We make every effort to ensure that the information we provide is accurate and up-to-date but it should not be relied upon as a substitute for specialist professional advice tailored to your situation. So far as is permitted by law, Macmillan does not accept liability in relation to the use of any information contained in this publication or third party information or websites included or referred to in it.