Treatments and side effects

breast
cancer
care

Chemotherapy for breast cancer

personal experience professional support

Contents

Introduction

This booklet is for anyone who would like more information about chemotherapy. It explains what chemotherapy is and its possible side effects. The booklet also discusses some frequently asked questions about chemotherapy.

We hope that it will help you talk with your cancer specialist (oncologist) or chemotherapy nurse about any concerns you have and feel included in planning your treatment. You will also be given relevant information about your particular chemotherapy by your own treatment team.

If you would like more information on specific chemotherapy drugs and drug combinations, please see our range of factsheets.

What is chemotherapy?

Chemotherapy is a treatment using anti-cancer (also called cytotoxic) drugs which aims to destroy cancer cells. It is known as a systemic treatment because the whole body is exposed to the drugs.

Many different types of chemotherapy drugs are used to treat breast cancer. They can be given in different ways and in different combinations, according to an individual's situation.

How does chemotherapy work?

All normal cells in your body divide and grow continually in an orderly and controlled way. Cancer cells grow by dividing in a disorderly and uncontrolled way. Chemotherapy destroys cancer cells by interfering with their ability to divide and grow.

Different chemotherapy drugs work in different ways and interfere with the cancer cells at different phases of their growth. This is why a combination of drugs is often used.

Chemotherapy and primary breast cancer

Primary breast cancer is breast cancer that is found in the breast and/or the lymph nodes (glands) under the arm and which has not spread elsewhere in the body. Whether or not you are offered chemotherapy for primary breast cancer depends on your own individual situation.

Various factors are taken into consideration, such as, the size of your breast cancer, whether lymph nodes are involved, the grade of your cancer and the oestrogen receptor (ER) and HER2 receptor status (for more information on these see our **Understanding your pathology report** booklet). Your general health and any other medical conditions will also be considered when having chemotherapy treatment.

Chemotherapy is commonly given in addition to surgery and/or radiotherapy for primary breast cancer to reduce the risk of the breast cancer returning. This is known as adjuvant chemotherapy. In most situations chemotherapy is given soon after surgery and before radiotherapy, although this can vary depending on individual circumstances.

Chemotherapy is usually given a few weeks after surgery, giving your body some time to recover from the effects of the operation. Your chemotherapy will usually start a few weeks after surgery. National guidance states that treatment should begin within 31 days of you agreeing to the treatment, unless there is a medical reason why it cannot be given, for example a wound infection. This gives you some time to recover from the effects of the operation.

In some circumstances chemotherapy is given before surgery. This is known as primary or neo-adjuvant chemotherapy. For example, it may be used to slow the growth of breast cancer that is growing rapidly and reduce the chance of it spreading to other parts of the body or to shrink a larger breast cancer before surgery. If you are offered primary chemotherapy your specialist and/or breast care nurse will explain the reasons why.

Chemotherapy and secondary breast cancer

Secondary, or metastatic, breast cancer is when breast cancer cells have spread from the breast to other parts of the body, such as the bones or lungs.

Chemotherapy can be given to shrink or control the growth of secondary breast cancer. It can also be given to reduce some symptoms. Your oncologist may also try other treatments before or alongside chemotherapy. For example, hormone therapy (if the breast cancer is oestrogen receptor positive) or radiotherapy may be given before or instead of chemotherapy depending on the site of the secondary breast cancer. Speak to your oncologist for more information or you might find our **Secondary breast cancer** booklet useful.

How much will I benefit from chemotherapy?

The amount of benefit if you have primary breast cancer will depend on several factors including your age, whether lymph nodes are involved and the type, size, grade and stage of the breast cancer. In some circumstances the benefits of chemotherapy are clear; in others they are less certain or quite small and it can be difficult to decide whether or not to have chemotherapy.

If you have primary breast cancer your cancer specialist can use an online programme to help estimate the benefit you might expect to receive from chemotherapy. They may be able to show you a graph containing this information, or discuss the benefit in the form of a percentage.

It is a very individual decision and you will need to weigh up the likely benefits against any potential side effects. Your decision may be influenced by factors such as any previous experience of chemotherapy, your personal priorities, your family and your work commitments. It is important to feel you can discuss these issues with your cancer specialist or breast care nurse who will try to answer your questions and support you with your decision.

What can I expect?

Chemotherapy for primary breast cancer is most commonly given as a series of treatments at intervals of three to four weeks over a period of four to six months. Treatment for secondary breast cancer can sometimes be given weekly. This can vary depending on the type and grade of your breast cancer, your general health and the combination of drugs used.

The period between each chemotherapy treatment gives your body time to recover from any short-term side effects. The exact type and dose of chemotherapy will be tailored to suit your individual situation.

You will normally be given your treatment as an outpatient so you will be able to go home the same day. When you have your chemotherapy you should expect to be at the hospital for most of the day. This allows for waiting time, any tests that need to be done, such as blood tests, the preparation of the chemotherapy and the treatment itself. You might find it helpful to bring things to help the time pass such as books, a personal music player and snacks. With some types of chemotherapy you may be given your first treatment as an inpatient and you would need to stay in hospital overnight.

A member of your breast care team will explain which chemotherapy drugs you will be having and on which days you will have them. You may hear people refer to your chemotherapy ‘regime’ or ‘regimen’. This means the chemotherapy drugs used, their dose, how often they are given and the number of cycles overall. For example, if you have treatment every three weeks each three-weekly chemotherapy is a cycle: you have cycle 1, then cycle 2 three weeks later, cycle 3 three weeks after that, and so on.

Some chemotherapy regimes may be given every two weeks instead of every three; this is known as ‘dose dense’. This means that the drugs are given with less time between treatments than in a standard treatment plan although the same total dose of chemotherapy is given. For example, if a standard dose of chemotherapy was eight treatments over 24 weeks, a dose dense treatment might be eight treatments over 16 weeks. Your oncologist will discuss this with you if it is appropriate in your situation.

You will usually be given anti-sickness (also called anti-emetic) drugs before your chemotherapy. This will vary depending on the type of chemotherapy being given but will often include a steroid drug called dexamethasone in addition to other anti-sickness medications.

How chemotherapy is given

Chemotherapy can be given in several ways. For breast cancer the drugs are most commonly given:

- into a vein (intravenously)
- by mouth (orally) as a tablet or capsule.

Intravenous chemotherapy

There are various ways that intravenous chemotherapy can be given depending on your preferences and how easy it is for chemotherapy staff to find suitable veins.

The most common way involves inserting a small plastic tube called a cannula into a vein, either in the back of the hand or lower arm, and slowly injecting the diluted drug. If a large volume of fluid is used it can be given as an infusion (drip) through the cannula over a period of several hours.

The cannula is taken out after you have received the drugs and a new one is inserted before each cycle of chemotherapy.

If it is difficult to find a vein, there are other ways to make this easier. For example, a central venous access device is sometimes used. This stays in place throughout the course of the treatment and the chemotherapy is given through it. Various types of central venous access devices are described below.

Skin-tunnelled catheter

A skin-tunnelled catheter (a catheter is a tube that allows fluids to be given or to drain away) is a fine silicone tube that is inserted into a vein through a small cut in the chest wall. You may hear this referred to as a Hickman line or Groshong. It can stay in place for several months, which means that you don’t need to have a cannula put into the vein each time you are given the chemotherapy drugs. Blood samples can also be taken from the catheter.

The catheter can be put in under a local or general anaesthetic. A tunnel is made under the skin and the catheter is inserted into a large vein that leads to the heart. There is a small 'cuff' around the catheter that lies immediately under the skin at the opening. Tissue grows around the cuff, which helps to keep the catheter firmly in place. Until this occurs, a stitch will be used to hold it in position. Care must be taken to keep the opening clean to minimise the risk of infection. Your chemotherapy nurse will explain what you need to do to take care of your catheter. After the treatment has finished the catheter will be removed under a local anaesthetic.

Peripherally inserted central catheter (PICC)

Alternatively you can have a catheter inserted into a vein in your arm, at or above the bend in your elbow, which extends into the large vein leading to your heart. This is known as a PICC and, like a skin-tunnelled catheter, it stays in place until your course of treatment is finished. It is usually put in under a local anaesthetic in an outpatient department or on a ward. While you have a PICC it will be covered by a dressing and you will be given instructions on how to care for and change this dressing. When it is no longer needed, the PICC will be removed by a nurse or doctor.

Implanted port

An implanted port (portacath) is a small chamber inserted under the skin, usually on the chest or in the arm. A catheter attached to the port is inserted into a vein either in the chest or arm. The procedure to insert the port is carried out in a hospital operating theatre either by a surgeon or radiologist. A general anaesthetic is usually given, although it can be put in and removed under a local anaesthetic. Chemotherapy drugs can be given directly into the port by puncturing it each time with a special type of needle. Unlike a skin-tunnelled catheter or PICC, the port is hidden.

When it needs to be removed a small cut is made over the site of the port. The port is then removed and the catheter is taken out of the vein. The wound is stitched and covered with a dressing. You will be given instructions on the care of your dressing and advice if you should feel sore or bruised following removal of the port.

Ambulatory chemotherapy

Some chemotherapy drugs are given through a central venous access device, usually a type of skin-tunnelled catheter that is attached to a battery-operated portable pump. The pumps vary in size but are usually small and light enough to carry around in your bag or on your belt. The pump is programmed to give you a controlled amount of the drug continuously over a given period. This means you can have your treatment at home and will need to visit the hospital only when the drug has finished. Your chemotherapy nurse will advise you how to take care of the pump.

Oral chemotherapy

This is chemotherapy taken by mouth and it may be given either as tablets or capsules. Oral chemotherapy is usually taken at home as all or part of your treatment. Your chemotherapy nurse will tell you when to take them and you will be given other written instructions such as whether or not to take them with food.

If you cannot take your medication for any reason or if you vomit after taking your tablets you should contact your doctor immediately for advice.

The drugs that you have been given by the hospital make up a complete course of treatment, and it is important to take them exactly as they have been prescribed. Always read the labels on the boxes before you leave the hospital – if the instructions are unclear, ask your nurse or doctor before taking any of the drugs.

If you need further supplies of the chemotherapy, or other medication, it is important to get these from your hospital specialist and not from your GP (local doctor) or local pharmacist.

Oral chemotherapy can cause side effects similar to treatment given intravenously and it is important to be aware of these when taking your other medicines.

Possible side effects

Chemotherapy drugs work by destroying cancer cells, which grow and divide rapidly. However, normal cells are also affected and this can result in side effects. The aim is to give a sufficient dose to kill breast cancer cells while causing the least damage possible to normal cells.

Breast cancer cells are unable to repair themselves efficiently but normal cells can repair themselves quickly. This means that side effects are usually temporary.

Chemotherapy affects people in different ways. The side effects can depend on your individual situation and the drugs you are receiving. Two people receiving the same combination of drugs may feel completely different during the course of their treatment.

Some people experience very few side effects and are able to continue with their usual activities, while others find their lives are affected to varying degrees. Some of the most common side effects are nausea and vomiting, hair loss or thinning, sore mouth (mucositis), mouth ulcers, tiredness and a reduced ability to make new blood cells (known as bone marrow suppression), meaning you may be at greater risk of infection. Your hospital will give you information about the drugs you are having and details of any specific side effects they may cause.

Talk to your chemotherapy nurse or cancer specialist about any concerns you have as side effects can often be controlled. They will advise what might help you.

Bone marrow suppression

Chemotherapy drugs can affect blood cells within the body and in bone marrow (the spongy material found in the hollow part of bones) where blood cells are made. Blood cells (white blood cells, red blood cells and platelets) are released by the bone marrow to replace those which are naturally used up within the body. Chemotherapy reduces the ability of the bone marrow to make these cells.

The blood cell levels will start to fall in the days following your chemotherapy. They are usually at their lowest level 7–14 days after the chemotherapy, although this will depend on the drugs given. The blood cell levels will then start to increase and your body will be ready to receive the chemotherapy drugs again. Before each cycle of chemotherapy begins (and sometimes during a cycle) you will have a blood test to ensure that your blood cell count is within safe limits to have the treatment, and that the cells have recovered from the previous cycle.

If the number of blood cells is too low, it may be necessary to delay the next course of treatment or to reduce the dose of chemotherapy you are given. If your treatment has to be delayed, the blood cells generally recover enough within a week or so of the postponement, at which point chemotherapy can start again.

You should keep the following points in mind and let your specialist know if you have any concerns.

- If your white cells are low this means that you are more prone to infections. Although it's not always possible, it is worth trying to avoid being in close contact with anyone who has any symptoms of infection, such as coughs and colds, especially around 7–14 days after chemotherapy when the white blood cells may be at their lowest. You may also want to avoid enclosed public spaces such as public transport, however, this may not always be realistic.

- When the white cells fall below a certain level it is referred to as 'neutropenia'. If you feel unwell, develop a sore throat, cough, shivering or a temperature above 38°C during your treatment, you should contact the hospital immediately, even if this happens at the weekend or during the night. You may need to be treated with antibiotics. Your specialist team will give you details of who to contact at any time during your treatment.

- With some combinations of chemotherapy drugs and in certain circumstances, your specialist team may recommend injections of drugs that stimulate the production of white blood cells to reduce your risk of infection Your specialist will explain more about these injections if you are going to have them.

- If your red cells are low this means that you are anaemic. If you feel particularly tired, breathless or dizzy you should let your specialist team know. Although these symptoms can also be due to other causes, it is important to report them. Occasionally a blood transfusion may be necessary at some point during your treatment.

- Because chemotherapy can reduce the number of platelets (which help the blood to clot), you may find during your treatment you bruise more easily, have nosebleeds or notice that your gums bleed when you brush your teeth. You should tell your specialist team if you experience any of these symptoms. A platelet transfusion can be given, although this is rarely needed, as platelet levels usually correct themselves over time.

Taking some of the following precautions may help reduce the risk of problems such as infection and bleeding:

- be careful about personal hygiene and hand washing

- clean and cover any cuts and grazes with a dressing or plaster

- try to avoid exposure to people who might have infections

- eat as healthily as possible, following any advice about food and drink given to you by your hospital. Drink plenty of fluids and ensure that all food is stored and cooked correctly

- avoid unnecessary activities that might cause injuries

- be aware that you might need more rest than normal.

Nausea and vomiting

The likelihood of experiencing nausea and vomiting following chemotherapy will depend on the type and dose of drugs received. Other factors can also influence how people respond, for example, people who are very anxious or prone to travel sickness or morning sickness in pregnancy may well experience vomiting.

Nausea can start immediately after chemotherapy, a few hours after or up to five days later. For some people it can last for several hours and for others it can continue for several days. However, nausea can usually be lessened and in most cases well controlled. Several types of anti-sickness drugs are available and these can be tailored to your individual needs. Sometimes it might be necessary to use a combination of drugs to get relief. This may include taking a low dose of steroids for a short time. Talk to your chemotherapy nurse or cancer specialist if this is a continuing problem, as your anti-sickness drugs can be changed to find the best ones for you.

It is important to try to keep drinking fluids, and eating regularly. This can be difficult when you are feeling nauseous or being sick. Try to take small but frequent amounts of drinks and food.

You should contact your hospital, even if it is the weekend or during the night if you are experiencing severe vomiting and are unable to drink any fluids without vomiting.

While there is no clear evidence of their effectiveness some people find complementary therapies, such as relaxation therapy, hypnosis or aromatherapy, helpful. For more information, see our **Complementary therapies** booklet.

Hair loss or thinning

Not all chemotherapy drugs cause complete hair loss. Some cause thinning while others may not affect the hair at all. The likelihood of losing your hair depends on the type and amount of chemotherapy drugs you are given. Hair loss can be one of the most distressing side effects of chemotherapy. However, some people find they can accept this loss better if they know in advance that losing their hair is a possibility. Some women with longer hair choose to cut it shorter before starting chemotherapy to try to reduce the impact of hair loss.

If you lose your hair it usually happens gradually and begins within two to three weeks of starting treatment. Occasionally it may be much more sudden. Hair loss also effects your body hair including eyebrows, eyelashes and pubic hair as well as the hair on your head.

You may find that you lose your body hair at a slower rate than the hair on your head. Hair loss should be temporary and your hair should grow back after chemotherapy has finished. Sometimes hair will start to grow back before the end of chemotherapy. In a very small number of cases prolonged or permanent hair loss has been reported following chemotherapy treatment.

For some people scalp cooling may be appropriate to prevent or minimise hair loss. This involves wearing a ‘cold cap’ before, during and after you have the chemotherapy drugs. Scalp cooling is thought to work by reducing the blood flow to the hair follicles in the scalp to prevent the drugs from reaching and damaging them. It may also affect the cells within the hair follicles, making them less sensitive to the effects of the chemotherapy drugs. The success of scalp cooling varies depending on which chemotherapy drugs are used and is not available in all areas, so ask your specialist or chemotherapy nurse if this treatment would be suitable for you and if it is available.

Wigs

Most modern wigs are natural looking and comfortable. They can be made from real or synthetic hair or a mixture of both, and are available in various colours and styles.

At the time of printing, you may be entitled to a free synthetic wig on the NHS if:

- you are an inpatient when the wig is supplied
- you or your partner are receiving Income Support, Income-based Jobseeker's Allowance, Income-related Employment and Support Allowance or Pension Credit Guarantee Credit
- you are entitled to or named on an NHS Tax Credit Exemption Certificate
- you are named on an HC2 Certificate.

Some hospitals may even provide you with a free wig whether or not you meet any of the conditions above. To find out if you're entitled to a free wig, talk to a healthcare professional as it varies according to where you live in the UK.

You're entitled to a new wig on the NHS every six months if necessary. Your chemotherapy or breast care nurse should be able to advise you on how to go about getting your wig.

If you aren't entitled to a free wig you can still get one through the NHS at a subsidised rate. To apply for this you'll need an HC1 form, which you can get from your hospital or at www.nhsbsa.nhs.uk/HealthCosts/1128.aspx

You don't have to pay VAT (Value Added Tax) on a wig when hair loss is caused by cancer treatments. To claim back the VAT you will need to complete a VAT form – which most stores will provide at the time of purchase – and send it off. The tax can't be claimed back at a later date.

Financial help towards the cost of a wig may be available from Macmillan Cancer Support (see ‘Other organisations’) but your doctor, nurse or social worker will need to apply on your behalf.

Many hospitals have an appliance officer or specialist wig supplier who can provide advice and fit you with a suitable wig. Breast Cancer Care provides a free hair loss advisory service throughout the UK called HeadStrong. For more information, contact your local Breast Cancer Care centre using the contact details in the back of this booklet.

For more information, see our **Breast cancer and hair loss** booklet.

Nail changes

Chemotherapy may cause changes to the appearance of your nails. This can involve a change in the nail colour or texture such as the formation of ridges. Nails can become more brittle and cracked. Occasionally the nail may lift off the nail bed entirely and be lost.

During treatment you can use hand cream to help moisturise your hands, feet and nails and try to protect your nails by using gloves for household chores such as gardening and washing up. If your toenails are affected you may want to avoid tight-fitting shoes. It is not advisable to wear false nails during chemotherapy treatment as these can lead to or mask the signs of infection.

As you are more susceptible to infections while you are having chemotherapy it is important to report any signs of infection such as redness, heat, swelling or pain to the area surrounding or underneath your finger and toenails.

Dental and mouth problems

Chemotherapy may affect your mouth in a number of ways. These include:

- sore mouth
- dry mouth (xerostomia), which can also increase the risk of tooth decay
- infection
- bleeding gums
- taste changes.

If you already have dental problems, cavities or gum disease, it's advisable to see your dentist so that they can be treated before chemotherapy begins but you may benefit from having a dental check prior to chemotherapy regardless of any previous problems. Other ways you can help to minimise problems are:

- cleaning your teeth/dentures after each meal
- using a soft toothbrush
- using a mouthwash (alcohol free)
- avoiding spicy or acidic foods such as citrus fruits if your mouth is sore and ulcerated
- taking regular sips of water to keep the mouth moist
- chewing sugar free gum to encourage the production of saliva.

If you have any mouth problems let your GP or chemotherapy nurse know as soon as possible as there are medicines that can help. Your dentist may also be able to offer advice.

During the time you are having chemotherapy your taste can change and some food may taste different (for example, more salty, bitter or metallic). You may find you no longer enjoy some foods you used to enjoy and you may want to experiment to find the tastes and textures that you find most appealing at this time. Your taste should return to normal once your treatment has finished although for some people this can persist for some time after treatment.

Tiredness (cancer-related fatigue)

Tiredness or exhaustion that doesn't go away with rest or sleep is referred to as fatigue. This is a very common side effect of cancer treatment and may start quite soon after you begin your chemotherapy. For some people the fatigue comes and goes depending on where they are in their chemotherapy cycle. For others it is fairly constant. Some people find the fatigue gets worse throughout their chemotherapy treatment. Tiredness or fatigue may affect what you feel able to do and although many people find they can manage their daily tasks as usual and continue to go to work, others will find this very difficult. Fatigue can continue for quite some time after treatment has finished.

If you become anaemic (have low red blood cells) you may be more prone to fatigue but it can occur even if your blood levels are normal.

Each person's experience of fatigue is different. Factors such as working through your chemotherapy treatment or caring for children may affect how tired or fatigued you feel, but it is important to know what your limits are and not to expect too much of yourself. You should try to take as much time to rest as you feel you need. The following suggestions may also be helpful in managing tiredness and fatigue.

- Plan your days so you can have plenty of rest between your daily activities. It may help to write a list of what you need to do each day, making time to rest between tasks.

- You may find it helpful to start a 'fatigue diary' to note down your energy patterns so that you can identify if there are particular times of day when you feel more or less fatigued. This might help you plan important activities around when you have the most energy. Keeping a record of your fatigue may also help you discuss this problem with your medical team.

- Accept offers of help from others where possible.

- Prepare and plan for activities that may require a lot of energy by resting beforehand.

- Drink plenty of fluids particularly if you are affected by diarrhoea, nausea or vomiting, as this will will help to avoid dehydration as this can also make you feel tired.

- Try to eat a healthy diet with a wide variety of foods. If you find your appetite varies, make the most of the times when your appetite is good by eating high-energy foods. If you are experiencing taste changes you may need to experiment to find foods that you find enjoyable to eat. You may find it useful to read our **Diet and breast cancer** factsheet.

Choose relaxing activities such as watching TV or listening to music or an audio book and use relaxation techniques to relieve any tension you may experience.

Exercise has been shown in many research studies to help relieve fatigue. Although the research is not definitive regarding the best type and intensity of exercise, it is always best to start any exercise programme slowly, particularly if you are not accustomed to it. Your hospital specialist, chemotherapy nurse or breast care nurse will be able to give you advice about doing gentle exercise, such as walking, while receiving chemotherapy.

Breast Cancer Care's **Getting fitter, feeling stronger** DVD and leaflet might be helpful in demonstrating suitable exercises while you are in treatment and beyond. Macmillan Cancer Support produces a booklet called *Coping with fatigue* which you may find useful. See 'Other organisations' on page 37 for contact details.

Cognitive dysfunction ('chemo brain')

Some people also find chemotherapy affects their ability to concentrate and makes them more forgetful. This is sometimes referred to as 'chemo-brain' or 'chemo-fog' and usually improves over time after treatment has finished.

There is not a great deal of research evidence to support the best way to treat 'chemo brain' but some of the tips to help reduce cancer-related fatigue may also be beneficial: physical exercise, eating a healthy, varied diet and relaxation techniques to reduce stress. Some people say mental exercises such as crosswords and puzzles are helpful in keeping their mind active.

Effects on your digestive system

Chemotherapy can affect your digestive system in different ways. Some people find they get constipated (hard or infrequent bowel movements), others experience diarrhoea (loose or frequent bowel movements). Let your chemotherapy team know if you are experiencing either side effects as there are medications which can help alongside dietary advice. Try to ensure you drink plenty of fluids and contact your GP or hospital without delay if you are experiencing severe diarrhoea. Your hospital will have its own guidelines but this is often classed as four or more episodes of diarrhoea within a 24-hour period.

Menopausal symptoms

Sometimes chemotherapy can result in pre-menopausal women experiencing menopausal symptoms because their ovaries, which produce oestrogen, are affected by the treatment. Common symptoms include hot flushes, night sweats, mood changes, joint aches and pains and vaginal dryness. You may find it helpful to talk to your breast care nurse or cancer specialist team about ways of coping with any of these symptoms. For more information, see our **Menopausal symptoms and breast cancer** booklet.

Fertility issues

Chemotherapy causes changes within the ovaries, which may lead to infertility. Most women's periods will stop or become irregular during chemotherapy and whether they return will depend upon the type of drug(s) used, the dose given and your age. The risk of infertility is greater if you are over 35 years of age and rises as you get older.

If you want children in the future it is important that you discuss the possible effects of the drugs you will be having on your fertility with your cancer specialist. This will help you make an informed decision regarding your options. If a referral to a fertility specialist is needed then it is important that this occurs as soon as possible to minimise any delay in starting your chemotherapy. For more information, see our **Fertility issues and breast cancer treatment** factsheet.

For men, chemotherapy can affect sperm production which can lead to temporary or permanent infertility. If you are concerned about the effect chemotherapy may have on your fertility talk to your specialist before starting treatment. For more information, see our **Men with breast cancer** publication.

Questions concerning chemotherapy

Can I have sex following my chemotherapy treatment?

It’s fine to have sex in the days following chemotherapy treatment. It’s thought that chemotherapy drugs can’t pass into vaginal fluids or semen, but this can’t be completely ruled out as chemotherapy drugs can be excreted (passed) through blood and body fluids.

You may want to avoid unprotected oral sex, or any contact that involves the sharing of body fluids, for the first few days to ensure that your partner is not exposed to the chemotherapy drugs.

Most hospital specialists will also advise using barrier protection methods such as wearing a condom for a few days after treatment is given for the same precaution.

You might find that you lose interest in sex during chemotherapy and there could be a number of reasons for this. For example, you may be anxious about your diagnosis and treatment or be experiencing side effects such as nausea or menopausal symptoms. You may also simply feel too tired. Everybody’s reaction is different. For more information, see our **Sexuality, intimacy and breast cancer** booklet.

Do I need to use contraception?

Although women’s periods may become irregular or stop completely it is still important to use contraception as chemotherapy drugs can harm a developing foetus in the first three months of pregnancy.

Most hospital specialists will advise using a barrier method of contraception to avoid the use of hormonal drugs such as ‘the pill' (see below for more detail) for women diagnosed with breast cancer.

Once your treatment is complete, you may also wish to consider the following methods of contraception:

- diaphragm
- fitted IUD (coil) – but not one that works by releasing hormones
- condom.

The contraceptive pill is not routinely recommended for women who have been diagnosed with breast cancer because of the possible risk of hormonal stimulation of cancer cells although the morning-after pill may still be used for emergencies. You may find it helpful to discuss this issue with a member of your breast care team or your GP.

Are there other side effects?

Different chemotherapy drugs have different side effects and some of these side effects are less common than others and not everybody is affected to the same degree. It's not possible to list all the possible side effects within this booklet but if you would like more detailed information about the specific drugs you are receiving see our individual chemotherapy drug factsheets, ask your chemotherapy nurse or specialist, or call Breast Cancer Care's free Helpline on **0808 800 6000** (Text Relay **18001**).

Can I take other medicines and supplements?

It is important to tell your specialist about any other drugs you are taking or additional drugs you would like to take. This includes vitamin and mineral supplements that you buy over the counter. The scientific evidence is conflicting about how safe it is to take vitamins, particularly high-dose antioxidants (including vitamins A, C and E, Co-enzyme Q10 and selenium), during your chemotherapy treatment. Some studies suggest it might interfere with the action of the chemotherapy and make it less effective, while other studies have indicated that it could help reduce chemotherapy side effects and does not negatively affect outcome. Because the safety evidence is not clear many specialists will recommend that people avoid taking high-dose anti-oxidant supplements during chemotherapy. For the same reason, you should discuss with your specialist about taking any herbal remedies or supplements and whether they would be suitable and not interfere with your chemotherapy treatment.

Can I have chemotherapy while I am pregnant?

If you are diagnosed with breast cancer during pregnancy, you may be given chemotherapy during the second and third trimesters (between three and nine months into the pregnancy). It is not usually given earlier than this because the foetus grows very quickly early on and could be affected by the drugs. For more information, see our **Breast cancer during pregnancy** factsheet.

Can I use complementary therapies?

Many people find that complementary therapies can help them cope with the side effects of chemotherapy, even though there may not necessarily be the clinical evidence to support this. There are many different types including acupuncture, relaxation, visualisation, aromatherapy, reflexology, meditation and hypnotherapy. If you feel you would like to explore these, or other options, make sure you choose something that feels right for you and that you are happy doing.

Some therapies are available in NHS hospitals, so ask your specialist or breast care nurse for details of what is available to you. For more information, see our **Complementary therapies** booklet.

Do I have to pay for my chemotherapy?

Chemotherapy treatment is free to all patients within the NHS. Since 1 April 2009, people in England affected by cancer are entitled to all their prescriptions free of charge. This will also include any additional medication you may need from your GP following chemotherapy, for example anti-sickness medication.

To show you are eligible for free prescriptions you need to apply for a prescription exemption certificate from your GP. The certificate will mean no charges for any prescriptions for five years. A renewal application can be made after five years if you are still undergoing treatment.

Prescription charges have been abolished in Wales, Scotland and Northern Ireland.

Can I go abroad during chemotherapy treatment?

If you are planning a holiday, or need to travel overseas for any reason, do check with your specialist first. It is sometimes possible to plan your treatment around your travel plans. Going abroad may not always be advisable, particularly if you have suffered severe side effects or are going to a country where you need 'live' vaccine injections (see section opposite).

If you plan to go somewhere hot, take care not to stay in the sun for long periods as your skin may burn more easily when the chemotherapy drugs are still affecting your system. It's a good idea to avoid the sun during the hottest part of the day (11am–3pm), to use a high-factor sunscreen and keep covered with light clothing and a hat.

You may also find that it can be difficult to get travel insurance while having treatment. Our online Disscussion Forums have regular updates on people's experiences of finding travel insurance – visit **www.breastcancercare.org.uk**

What if I need vaccinations?

It's important to tell whoever is giving you vaccinations that you are having chemotherapy. Vaccines may not be as effective as usual for several months after the end of your chemotherapy since your blood count may still be low.

You should not have any 'live' vaccines while you are having chemotherapy. Live vaccines include measles, rubella (German measles), polio, BCG (tuberculosis) and yellow fever. It's safe to have these vaccines six months after your chemotherapy finishes. If you're in any doubt, talk to your GP or specialist before having any vaccinations.

You should also talk to a member of your breast care team before having an inactivated vaccine, such as diphtheria, tetanus, whooping cough, flu, hepatitis A and B, rabies and cholera. They will be able to advise you on the best time for you to have the vaccines to give you the best protection, based on your individual situation.

Should I have the flu vaccination?

Anyone with a reduced immunity to infection should receive the flu vaccine. This includes people having or due to have chemotherapy. The flu vaccine is not a live vaccine (so you can't develop flu from having the vaccination) but your immune system needs to be healthy in order to make the antibodies to the vaccine that protect you from the flu. Therefore it is best to have the vaccination at least two weeks before your chemotherapy starts. If you are already receiving chemotherapy then you will need to talk to your hospital specialist or breast care nurse about the best time to have your flu jab to ensure you gain the greatest possible effect from the vaccine. This will usually be at a point in your chemotherapy cycle when your white blood cell count is recovering.

Other questions you might want to ask

You will probably have some questions about your chemotherapy treatment and you should feel free to ask for as much information as you need.

Questions might include.

- How much benefit will I get from chemotherapy?
- Why is this the best drug/regime for me?
- Are there any other options?
- How long will my treatment take?
- What are the possible side effects of my particular chemotherapy drug/s and how can these be managed?
- Are there any long-term implications for me?
- What impact will the treatment have on my everyday life?
- Who do I contact if I have any questions or problems?
- Who do I contact if I have an out-of-hours question or problem?

Your specialist team should be able to explain anything you don't understand. Our Helpline staff can also talk to you about your chemotherapy treatment, and may be able to put you in touch with one of our trained volunteers who has been through a similar experience.

Further support

Being told that chemotherapy is part of your treatment can cause a range of emotions. Many people feel positive and secure in the knowledge that everything possible is being done for them. Others can feel anxious and frightened.

This may be because people mistakenly think that chemotherapy is given only when the cancer has spread and is more serious. Chemotherapy is now commonly given in addition to surgery and/or radiotherapy for primary breast cancer, even when there is no evidence of spread.

Fear of the unknown is also common, so finding out as much as possible about your chemotherapy treatment may help you cope better.

If you are feeling low, tired, irritable or tearful at any point during your treatment, remember that this is not unusual and there are people there to help you. Let other people, particularly your family and friends, know how you are feeling so that they can be more supportive. It can also help to discuss your feelings or worries with your specialist, chemotherapy nurse or breast care nurse. Alternatively, a professional counsellor might be more appropriate if you want to talk through your feelings in more depth over a period of time. Your specialist team or GP can usually arrange this.

You might find it easier to share your feelings with someone who has had a similar experience to you. You can do this either one to one or in a support group. For more information on individual support or support groups in your area call Breast Cancer Care's Helpline on **0808 800 6000** (Text Relay **18001**).

Breast Cancer Care

From diagnosis, throughout treatment and beyond, our services are here every step of the way. Here is an overview of all the services we offer to people living with and beyond breast cancer.

Helpline

Our free, confidential Helpline is here for anyone who has questions about breast cancer or breast health. Your call will be answered by one of our nurses or trained staff members with experience of breast cancer. Whatever your concern, you can be confident we will understand the issues you might be facing, and that the information you receive is clear and up to date. We will also let you know where else you can go for further support.

Ask the Nurse

If you find it difficult to talk about breast cancer, we can answer your questions by email instead. Our Ask the Nurse service is available on the website – complete a short form that includes your question and we'll get back to you with a confidential, personal response.

Website

We know how important it is to understand as much as possible about your breast cancer. Our website is here round the clock giving you instant access to information when you need it. As well as clinical information, you'll find real life experiences and a daily newsblog on stories about breast cancer in the media. It's also home to the largest online breast cancer community in the UK, so you can share your questions or concerns with other people in a similar situation.

Our map of breast cancer services is an interactive tool, designed to help you find breast cancer services in your local area wherever you live in the UK.
Visit **www.breastcancercare.org.uk/map**

Discussion Forums

Through our Discussion Forums you can exchange tips on coping with the side effects of treatment, ask questions, share experiences and talk through concerns online. Our dedicated areas for popular topics should make it easy for you to find the information you're looking for. The Discussion Forums are easy to use and professionally hosted. If you're feeling anxious or just need to hear from someone else who's been there, they offer a way to gain support and reassurance from others in a similar situation to you.

Live Chat

We host weekly Live Chat sessions on our website, offering you a private space to discuss your concerns with others – getting instant responses to messages and talking about issues that are important to you. Each session is professionally facilitated and there's a specialist nurse on hand to answer questions.

One-to-One Support

Our One-to-One Support service can put you in touch with someone who knows what you're going through. Just tell us what you'd like to talk about (the shock of your diagnosis, understanding treatment options or how you feel after finishing treatment, for example), and we can find someone who's right for you. Our experienced volunteers give you the chance to talk openly away from family and friends.

Information Sessions and Courses

We run Moving Forward Information Sessions and Courses for people living with and beyond breast cancer. These cover a range of topics including adjusting and adapting after a breast cancer diagnosis, exercise and keeping well, and managing the long-term side effects of treatment.

Lingerie Evenings

For more confidence when choosing a bra after surgery, come along to a Lingerie Evening. Join other women who have had breast cancer for a practical guide to what to look for in a bra, an opportunity to be fitted and a chance to see how the lingerie looks on volunteer models who have all had breast cancer themselves.

HeadStrong

We can help you prepare for the possibility of losing your hair due to cancer treatment. We'll talk through how to look after your hair and scalp and show you how to make the most of alternatives to wigs, so you leave feeling confident that you've found something that works for you.

Information Resources

We produce free Information Resources for anyone affected by breast cancer, including factsheets, booklets and DVDs. They are here to answer your questions, help you make informed decisions and ensure you know what to expect. All of our information is written and reviewed regularly by healthcare professionals and people affected by breast cancer, so you can trust the information is up to date, clear and accurate. You can order our publications from our website or our Helpline. They are also available to download as PDFs online at **www.breastcancercare.org.uk**

Specialist support

We offer specific, tailored support for younger women through our Younger Women's Forums and for people with a secondary diagnosis through our Living with Secondary Breast Cancer events.

Other organisations

Cancer Research UK

Angel Building
407 St John Street
London EC1V 4AD

Telephone: **020 7242 0200**
Helpline: **0808 800 4040**
Website: **www.cancerresearchuk.org**

Cancer Research UK is the country's leading cancer research organisation. The CancerHelp section of their website includes information on breast cancer and its treatment.

Macmillan Cancer Support

Macmillan Cancer Support
89 Albert Embankment
London SE1 7UQ

General enquiries: **020 7840 7840**
Helpline: **0808 808 00 00**
Website: **www.macmillan.org.uk**
Textphone: **0808 808 0121** or **Text Relay**

Macmillan Cancer Support provides practical, medical, emotional and financial support to people living with cancer and their carers and families. It also funds expert health and social care professionals such as nurses, doctors and benefits advisers.

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Find out more

We offer a range of services to people affected by breast cancer. From diagnosis, through treatment and beyond, our services are here every step of the way.

(SM21) (SM22) (SM23) (SM24) (SM25)

To request a free leaflet containing further information about our services, please choose from the list overleaf, complete your contact details and return to us at the **FREEPOST** address or order online at **www.breastcancercare.org.uk/publications**

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To make a donation please complete your details overleaf and return to us with your cheque/PO/CAF voucher at the **FREEPOST** address:
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5–13 Great Suffolk Street, London SE1 0NS

Or to make a donation online using a credit or debit card, please visit **www.breastcancercare.org.uk/donate-to-us**

I’d like more information

Please send me:

☐ Support for people recently diagnosed with breast cancer (SM21)
☐ Support for people having treatment for breast cancer (SM22)
☐ Support for people living with and beyond breast cancer (SM23)
☐ Support for younger women with breast cancer (SM24)
☐ Support for people living with secondary breast cancer (SM25)

I’d like to donate

Please accept my donation of £10 / £20 / my own choice of £ ☐

☐ I enclose a cheque/PO/CAF voucher made payable to Breast Cancer Care.
(Please don’t post cash.)

Or to make a donation online using a credit or debit card, please visit
www.breastcancercare.org.uk/donate-to-us

Thank you for your kind donation.

My details

Name

Address

Postcode

Email address

From time to time we may wish to send you further information on our services and activities.
☐ Please tick if you are happy to receive emails from us
☐ Please tick here if you do not want to receive post from us

Breast Cancer Care will not pass your details to any other organisation or third party.

I am a (please tick):
☐ person who has/who has had breast cancer
☐ friend/relative of someone with breast cancer
☐ healthcare professional
☐ other (please state)

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Source code: LIP

This booklet can be downloaded from our website, **www.breastcancercare.org.uk** It is also available in large print, Braille, audio CD or DAISY format on request by phoning **0845 092 0808**.

This booklet has been produced by Breast Cancer Care's clinical specialists and reviewed by healthcare professionals and people affected by breast cancer.

If you would like a list of the sources we used to research this publication, email publications@breastcancercare.org.uk or call 0845 092 0808.

Centres
London and the South East of England
Telephone 0845 077 1895
Email src@breastcancercare.org.uk

Wales, South West and Central England
Telephone 0845 077 1894
Email cym@breastcancercare.org.uk

East Midlands and the North of England
Telephone 0845 077 1893
Email nrc@breastcancercare.org.uk

Scotland and Northern Ireland
Telephone 0845 077 1892
Email sco@breastcancercare.org.uk

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Breast Cancer Care is here for anyone affected by breast cancer. We bring people together, provide information and support, and campaign for improved standards of care. We use our understanding of people's experience of breast cancer and our clinical expertise in everything we do.

Visit **www.breastcancercare.org.uk** or call our free Helpline on **0808 800 6000** (Text Relay **18001**).

Interpreters are available in any language. Calls may be monitored for training purposes. Confidentiality is maintained between callers and Breast Cancer Care.

Central Office
Breast Cancer Care
5–13 Great Suffolk Street
London SE1 0NS
Telephone 0845 092 0800
Fax 0845 092 0820

Email info@breastcancercare.org.uk

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