TREATING PRIMARY BREAST CANCER

BREAST CANCER NOW
The research & care charity

CONTENTS

INTRODUCTION

This booklet describes the treatments you may be offered if you have been diagnosed with invasive primary breast cancer (see page 7).

If you have been diagnosed with ductal carcinoma in situ (DCIS) then you may find a lot of the information in this booklet relevant. However, you may want to read our **Ductal carcinoma in situ (DCIS)** booklet for information that is specific to your situation.

Your treatment team will consider many different factors when deciding the best treatment for you.

We refer to 'your doctors' or 'your treatment team' throughout this booklet. This is because it's recommended that breast cancer is treated by different specialists who work together as a multidisciplinary team (see page 9).

You should have opportunities to discuss your treatment with your treatment team and to ask any questions.

NHS patients have access to a breast care nurse, who is a member of the treatment team. Most private hospitals also have breast care nurses.

The breast care nurse is trained to give information and support to anyone diagnosed with breast cancer, and will be one of your main contacts throughout treatment and afterwards. It's important to know who your breast care nurse is and how to contact them.

Although we refer to 'women' in this booklet, most of the information also applies to men who have been diagnosed with breast cancer.

Where to find more information

This booklet gives an overview of the different treatments for breast cancer. You can find more detailed information on each of the different treatment options, including side effects, in our other publications or on our website **breastcancernow.org** You can also call our Helpline on **0808 800 6000**. We refer to other relevant publications throughout this booklet, which you may find useful to read.

We recommend that you use this booklet alongside another of our booklets called **Diagnosed with breast cancer: what now?** This looks at some of the emotional issues that can arise in the early weeks and months after a diagnosis.

WHAT IS BREAST CANCER?

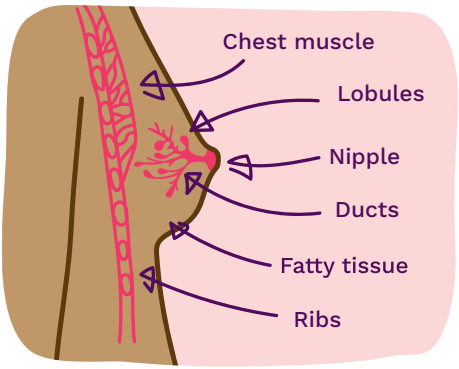
Breast cancer starts when cells in the breast begin to divide and grow in an unusual and uncontrolled way.

Primary breast cancer is breast cancer that has not spread beyond the breast or the lymph nodes (glands) under the arm.

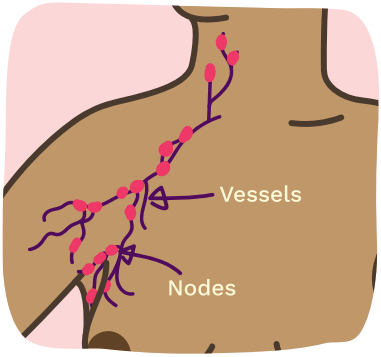
The breasts and lymph nodes

Breasts are made up of lobules (milk-producing glands) and ducts (tubes that carry milk to the nipple). These are surrounded by tissue that gives the breasts their size and shape.

Breasts contain a network of thin tubes called lymph vessels. These are connected to the lymph nodes (glands) under the arm.



The breast



The lymph nodes

Types of primary breast cancer

There are several different types of breast cancer.

Breast cancer can be diagnosed at different stages, grow at different rates and have different features. This means that people have different treatments, depending on their situation.

Breast cancer can be non-invasive (also called 'in situ') or invasive.

Most breast cancers are invasive. Invasive breast cancer has the potential to spread to other parts of the body. This doesn't mean the cancer has or will spread to another part of the body, just that this is a possibility. Treatments aim to reduce the risk of this happening.

Non-invasive breast cancer has not yet developed the ability to spread, either within the breast or to another part of the body.

Find out more information about the types of breast cancer at **breastcancernow.org** or read our booklet **Understanding your pathology results**.

Being diagnosed

Being told you have breast cancer can cause a range of emotions, from fear, shock and disbelief to anger, guilt and sadness.

There's no right or wrong way to feel. If you keep feeling low or anxious, you can talk to your breast care nurse or GP who can help you with this.

Our booklet **Diagnosed with breast cancer: what now?** is for anyone coping with a diagnosis of breast cancer and its treatment.

THE AIM OF TREATMENT

Treatment for invasive breast cancer aims to remove all the cancer in the breast and any affected lymph nodes under the arm. This is called local control.

Surgery and radiotherapy are treatments for local control.

Other treatment aims to destroy any cancer cells that may have already spread from the breast into the body through the bloodstream or the lymphatic system, and to reduce the risk of cancer affecting other parts of the body in the future. This is called systemic treatment.

Chemotherapy, hormone therapy and targeted therapy are all types of systemic treatment.

You may be recommended combinations of these treatments depending on the individual features of your cancer and your general health.

DECISIONS ABOUT TREATMENT

Your treatment team will consider many different factors when deciding the best treatment for you. These include the specific features of your cancer, as well as your age and your general health.

Several different tests will be done on breast tissue removed from a biopsy or during surgery. These tests are important because they help decide what sort of treatment will work best for you.

The following factors affect which treatments are recommended:

- The size of the breast cancer
- Where the cancer is in the breast
- Whether more than one area of the breast is affected
- The type of breast cancer
- The grade of the cancer

- Whether the cancer has spread to lymph nodes under the arm
- The size of the area of cancer within the lymph nodes, and how many lymph nodes are involved
- If there are cancer cells in the lymph vessels or blood vessels
- Whether your breast cancer is oestrogen receptor positive
- Whether your breast cancer is HER2 positive

As well as tests done on the breast tissue, sometimes tests on your body are needed too, such as x-rays, scans and blood tests. These can help your treatment team find out more information and plan the best treatment for you.

For more information on breast cancer features and the tests you may have, see our booklet **Understanding your pathology results**.

Your treatment team and discussing treatment options

People with breast cancer are cared for by a team of healthcare professionals, each with their own expertise. This is known as the multidisciplinary team (MDT).

They will meet regularly to discuss your care at the multidisciplinary team meeting (MDTM). The team will include:

- Breast care nurse
- Chemotherapy nurse (trained to give chemotherapy drugs)
- Clinical oncologist (a doctor who specialises in treating cancer with radiotherapy alone or radiotherapy and cancer drugs)
- Medical oncologist (a doctor who specialises in cancer drugs)
- Pathologist (a doctor who examines the tissue and cells removed during a biopsy or surgery)
- Radiologist (a doctor who specialises in the use of x-rays, ultrasound and scans to diagnose and treat disease)
- Research nurse (who can discuss the option of taking part in clinical trials)
- Surgeon
- Therapeutic radiographer (trained to give radiotherapy)

It's recommended that all NHS breast cancer patients have a named breast care nurse if they want one. Most private hospitals also have breast care nurses. Your nurse will try to answer any questions you have and will offer support during and after your hospital treatment. This role is sometimes called a 'key worker'.

You may also have treatment or care from:

- Fertility specialist
- Geneticist (a doctor who specialises in genetics)
- Oncoplastic surgeon (a breast cancer surgeon with specific training in plastic surgery) or plastic surgeon
- Pharmacist
- Physiotherapist
- Prosthesis (artificial breast form) fitter, sometimes called an appliance officer
- Psychologist
- Wig fitter or hair loss adviser

A range of support services may also be available. This varies from area to area. You may be interested in finding out more about:

- Counselling
- Complementary therapies
- Local support groups
- Dietary information
- Physical activity programmes

Your breast care nurse can tell you what's available to you.

Discussing your treatment with your treatment team

When your treatment team has all the information from the tests, they will discuss your treatment options with you and prepare a treatment plan.

Your treatment plan may change as more information about your breast cancer becomes available (such as the results of tests done on the breast tissue removed during an operation).

You can decide how much, or how little, involvement you want in decisions about your treatment.

Some people want to know everything they can about their breast cancer to be fully involved in making choices about their treatment. Others may want to be well informed about what's going on, but prefer to leave the treatment decisions to their treatment team. Some people may want to know as little as possible. You can change your mind about how much involvement you want at any stage of your treatment.

Whatever level of involvement you want, you do not have to be rushed into treatment. You can spend a few days thinking about any treatment options you've been offered before you decide what you want to do.

Taking a little time to think about your treatment is very unlikely to make a difference to the outcome. But you may feel more in control of what's happening if you've had a chance to think things through.

Questions you may want to ask

You'll probably have some questions and you should feel free to ask for as much information as you need. Your treatment team can explain anything you don't understand.

Questions might include:

- Why is this the best treatment for me?
- Are there any other options?
- Are there any clinical trials I can take part in?
- When will treatment start?
- Where will I need to go for treatment?
- How long will my treatment take?
- What are the possible side effects?
- How will the treatment affect my everyday life?
- Will the treatment affect my fertility?
- What is my prognosis (outlook)?

Decision making

You may have different treatment options, and your doctor may ask you to make a decision about your treatment. Some people find this straightforward, while for others it can be very difficult or worrying.

If you're asked to make a decision about your treatment, it's important to understand why you're being asked to decide and to have the opportunity to ask questions about your options.

Your treatment team may use some of the following tools to help make a decision.

Nottingham Prognostic Index (NPI)

The Nottingham Prognostic Index (NPI) is a scoring system that puts you into a prognosis category of good, moderate or poor.

Prognosis (outlook) is an estimate of the likely course and outcome of a disease, such as the likelihood of it coming back (recurrence) and the person's life expectancy.

PREDICT (predict.nhs.uk)

PREDICT is an online decision-making tool. It estimates the benefit of chemotherapy, hormone therapy and targeted therapy after surgery based on information about you and your breast cancer. It's not suitable for everybody, but your doctor or breast care nurse can tell you if it might be useful for you.

Genomic assays (also called gene expression profiling or gene assays)

These tests look at groups of genes found in the breast cancer. They help identify who is most likely to benefit from chemotherapy and how likely the cancer is to return (recurrence).

Examples of genomic assay tests include the following:

- EndoPredict
- Oncotype DX
- Prosigna

Genomic assays are not suitable for everyone.

See our **Understanding your pathology results** booklet for more information.

Treatment decisions for younger women

Women who have not reached the menopause when they are diagnosed with breast cancer often face additional concerns. Uncertainty over the impact of treatments on fertility, new relationships and family life may affect treatment decisions.

Find more information for younger women in our **Breast cancer in younger women** and **Fertility, pregnancy and breast cancer** booklets.

Asking for a second opinion

Some people consider asking for a second opinion about their diagnosis and treatment. This can be done through your treatment team.

A second opinion may not be different from the one you have already had and the time taken may delay your treatment slightly. A short delay should not affect the outcome of treatment.

Declining treatment

Very occasionally people decide not to have some or all of the recommended treatments. There may be a variety of reasons for this.

Some people have very strong personal, religious or cultural beliefs that lead them to decline medical treatment.

Others may be influenced by a family member or friend's experience. People's experiences of cancer and its treatments vary hugely and will also be affected by where the cancer is in their body and how long ago they were treated.

People may be afraid of the treatments or doubtful that a particular treatment will be of benefit. Some may feel that certain treatments will affect their quality of life, or are unwilling to accept the potential disruption to their own lives or their families.

Choosing not to have treatment is a very personal and sometimes difficult decision to make. Those around you are also likely to have opinions about your decision.

Even if you think you don't want to accept one or more of the treatments being offered, consider this carefully. Gather as much information as possible before making a final decision. Also think about staying in touch with your treatment team for continuing support.

You may also want to discuss your decision with your GP.

Clinical trials

You may be asked to take part in a clinical trial.

Clinical trials are research studies that aim to improve the treatment and care for patients.

They may be used to test new drugs or other treatments such as types of surgery, varying doses of radiotherapy and differences between treatments – for example giving combinations of drugs every two weeks rather than every three weeks.

You will not be entered into a trial without your knowledge and without giving your informed consent. This means fully understanding the purpose of the trial, why you are considered suitable for it and what it will mean for you.

You should be given detailed written information and plenty of time to discuss your options with a research nurse and your treatment team.

If you have been asked to take part in a clinical trial and you decide not to, you will continue to have treatment and care as before.

For general information on clinical trials see our website **breastcancernow.org/clinical-trials** or visit cancerresearch.org.uk for listings of current UK trials.

TREATMENT FOR PRIMARY BREAST CANCER

Treatment for primary breast cancer aims to remove the cancer and reduce the risk of it coming back or spreading to other parts of the body.

You may have one or more of the following treatments, not necessarily in the order below:

- Surgery
- Chemotherapy
- Radiotherapy
- Hormone (endocrine) therapy
- Targeted (biological) therapy
- Bisphosphonates

Your treatment team will explain the reasons for your particular treatment, but don't be afraid to ask if you have any questions.

Do not worry if the treatment you're offered is different from other people you know or meet. Everyone has their treatment tailored to their individual situation. You will also be given advice about managing side effects of treatment.

You may need to go to different hospitals for different treatments. For example, radiotherapy services are not available at all hospitals, so you may need to travel to a different hospital to where you had your surgery.

Surgery

Surgery is usually the first treatment for people with primary breast cancer.

It aims to remove the cancer with a border (margin) of normal breast tissue. This is done to reduce the risk of the cancer coming back in the breast – known as local recurrence – and to try to stop it spreading elsewhere in the body.

If surgery will be your first treatment, national guidance states that you should have this within 31 days of you and your specialist agreeing to it.

The surgeon will aim to ensure the most effective surgery for the cancer as well as the best cosmetic result.

Sometimes people with invasive breast cancer may be offered chemotherapy, targeted (biological) therapy or hormone therapy before they have surgery. This may mean surgery is less extensive.

There are two main types of breast surgery:

- Breast-conserving surgery, also known as wide local excision or lumpectomy, is the removal of the cancer with a border (margin) of normal breast tissue around it
- Mastectomy is the removal of all the breast tissue including the nipple area

The type of surgery recommended for you depends on the type and size of the cancer, where it is in the breast and whether more than one area of the breast is affected. It will also depend on the size of your breast.

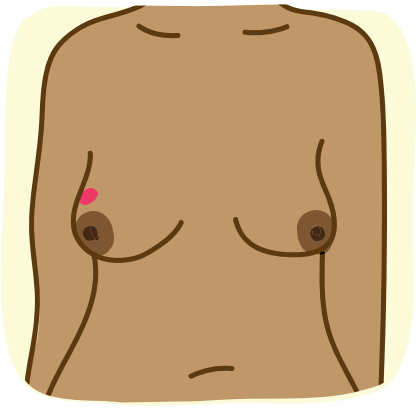
Your treatment team will explain why they think a particular operation is best for you.

You may also have some or all of the lymph nodes removed with the breast tissue (see page 21).

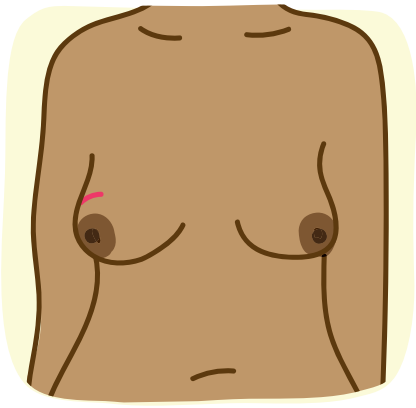
Breast-conserving surgery

This is where the cancer is removed with a border (margin) of normal, healthy breast tissue.

The aim of breast conserving surgery is to keep as much of your breast as possible while ensuring the cancer has been completely removed.



Position of cancer in breast



Example of position of scar after breast-conserving surgery

It's more common for people to have oncoplastic surgery. This combines breast cancer surgery with plastic surgery techniques, and means it's less likely you'll notice a dent or a great difference between the breasts. For more information see our **Breast reconstruction** booklet.

It's important that the cancer is removed with an area of healthy breast tissue around it to reduce the risk of any cancer cells being left behind.

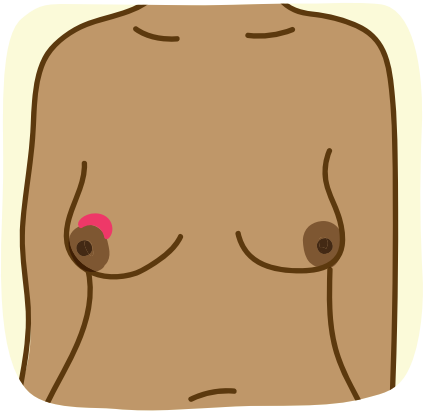
The breast tissue removed during surgery will be tested to check the margin around the cancer. If there are cancer cells at the edges of the margin, you may need further surgery to remove more tissue. Some people may need a mastectomy to ensure all the cancer has been removed.

Mastectomy

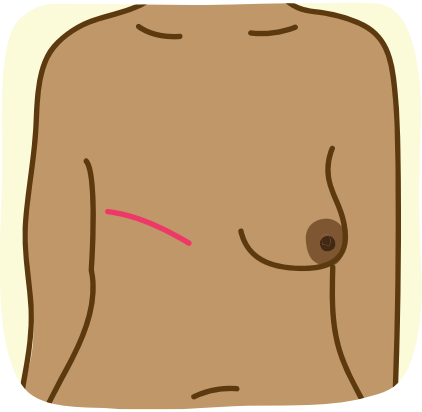
A simple mastectomy is the removal of all the breast tissue including the skin and nipple area.

Examples of when a mastectomy may be recommended include:

- When the cancer takes up a large area of the breast
- When there's more than one area of cancer in the breast
- If you have been diagnosed with inflammatory breast cancer



Position of cancer in breast



Example of position of scar after a mastectomy

If your surgeon recommends a mastectomy they should explain why. It may be your personal preference to have a mastectomy, even if breast-conserving surgery is an option.

If you're going to have a mastectomy, you will usually be given the option of having breast reconstruction (see page 24).

If you choose to have breast reconstruction, you may be able to have it at the same time as the mastectomy. If this is the case your breast surgeon might discuss other types of mastectomy:

- A skin-sparing mastectomy – removal of the breast and nipple area without removing much of the overlying skin of the breast
- A nipple-sparing mastectomy – removal of all the breast tissue, without removing much of the overlying skin and the nipple area of the breast

Which operation?

Some people will be offered a choice between breast-conserving surgery and a mastectomy.

Long-term survival and rates of local recurrence are the same for breast-conserving surgery followed by radiotherapy as for mastectomy. Local recurrence is breast cancer that has come back in the chest/breast area or in the skin near the original site or scar.

You may find it helpful to talk through your options with your breast care nurse.

Some women who are having a mastectomy wonder whether they should have their unaffected breast removed as well. Research shows this is not usually necessary or recommended, unless someone has a higher risk of developing primary breast cancer in the other side. This might be the case if they have inherited an altered gene or have a strong family history of breast cancer.

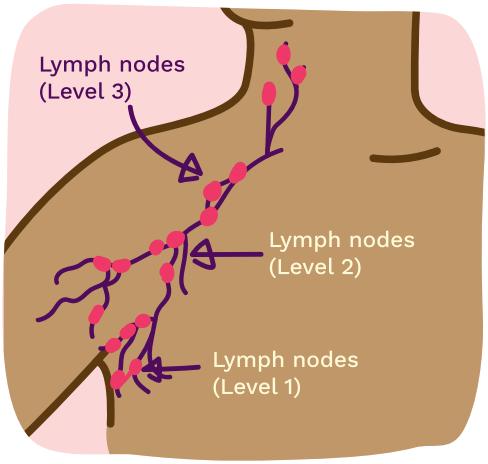
Many women overestimate their risk of developing a new primary cancer in the other breast or mistakenly believe breast cancer can spread from one breast to the other. It's important to discuss your individual situation with your surgeon.

Our booklet **Your operation and recovery** has information about what to expect before your admission to hospital, during your stay, when you return home and during your recovery from surgery.

Surgery to the lymph nodes

Breasts contain a network of thin tubes called lymph vessels. These are connected to the lymph nodes (glands) under the arm (axilla).

Lymph nodes are arranged in three levels: 1, 2 and 3 as illustrated below. The exact location and number of nodes in each level will vary from person to person.



If you have invasive breast cancer, your treatment team will want to check if any of the lymph nodes under the arm contain cancer cells. This helps them decide whether you will benefit from any additional treatment.

Usually, an ultrasound scan of the underarm is done before surgery to assess the lymph nodes.

If this appears abnormal, you'll have a fine needle aspiration (FNA) or a core biopsy to see if the cancer has spread to the lymph nodes.

- FNA – uses a fine needle and syringe to take a sample of cells to be looked at under a microscope
- Core biopsy – uses a hollow needle to take a sample of breast tissue. The sample will be sent to a laboratory to be looked at under a microscope

If the FNA or core biopsy shows cancer has spread to the lymph nodes, you'll usually be recommended to have all your lymph nodes removed (a lymph node clearance). This will be done at the same time as your breast surgery and is known as an axillary clearance.

More recently if there is cancer in three lymph nodes or fewer, some hospitals may offer chemotherapy before surgery. This is done to reduce the number of lymph nodes that need to be removed. It's called targeted axillary dissection.

Sentinel lymph node biopsy

Sentinel lymph node biopsy is used if tests before surgery show no evidence of the lymph nodes containing cancer cells.

It identifies whether the sentinel lymph node (the first lymph node or nodes that the cancer cells are most likely to spread to) is clear of cancer cells. There may be more than one sentinel lymph node.

Sentinel lymph node biopsy is usually carried out at the same time as your cancer surgery but may be done before.

A small amount of radioactive material (radioisotope) and sometimes a dye is injected into the area around the cancer or the nipple to identify the sentinel lymph node. Once removed, the sentinel node is examined under a microscope to see if it contains any cancer cells.

As the dye leaves your body, you may notice a bluish-green discolouration of your urine and other body fluids for one or two days after the procedure. The skin around the biopsy site may also be stained a blue-green colour. Occasionally it can take longer for this discolouration to disappear. Some people may have a reaction to the dye but this is rare and can be easily treated.

If the sentinel node does not contain cancer cells, this means the other nodes are clear too, so no more will need to be removed.

If the results show there are cancer cells in the sentinel node, depending on how much cancer is found you may be recommended to have:

- Further surgery to remove some or all of the remaining lymph nodes
- Radiotherapy to the underarm
- No further treatment to the underarm as long as you are having radiotherapy to the breast and chemotherapy or hormone therapy treatment

If you are having chemotherapy before your surgery, your specialist may want you to have a sentinel lymph node biopsy before starting chemotherapy. This can help with planning any further treatment to the underarm after chemotherapy.

If you have DCIS, you will only need a sentinel lymph node biopsy if you are having a mastectomy, or if there is a high chance you have an invasive breast cancer as well.

Assessing lymph nodes during surgery

Some hospitals are set up to assess the sentinel lymph node during your breast surgery. If so, the removed node will be looked at by a pathologist, who will then tell the surgeon the result during the operation.

The most common test used is called One Step Nucleic Acid Amplification (OSNA).

If the sentinel node contains cancer cells, the surgeon may then remove more lymph nodes.

Having lymph nodes assessed during surgery avoids a second operation.

Lymphoedema

If you have lymph nodes removed you may be at risk of developing lymphoedema. Lymphoedema is swelling of the arm, hand or breast/chest area caused by a build-up of lymph fluid in the surface tissues of the body.

See our **Reducing your risk of lymphoedema** booklet to find out more.

Breast reconstruction

Breast reconstruction is the creation of a new breast shape, or mound, using surgery. It may be done after a mastectomy or breast-conserving surgery.

You can have reconstruction at the same time as breast cancer surgery (immediate reconstruction) or months or years later (delayed reconstruction).

Breast reconstruction sometimes involves several operations to give you the best outcome possible.

The new breast shape can be created using an implant, tissue from another part of your body, or a combination of both.

Reconstructed breasts that don't have a nipple can have a new one created with surgery or tattooing. Other techniques such as 3D tattooing can create the look of a nipple. Prosthetic stick-on nipples are also available.

There are usually different options available for breast reconstruction and your breast surgeon and breast care nurse will explain which one is likely to suit you best. It's helpful if you can take some time to consider these options without feeling under pressure to make a decision. You may need more than one discussion with your treatment team before you feel confident deciding what to do.

Most women who have had a mastectomy, and some who have had breast-conserving surgery, can have either immediate or delayed breast reconstruction.

Some people are advised not to have a breast reconstruction because of other existing medical conditions that might increase the risk of problems and complications following surgery.

If it's likely you'll need radiotherapy this may affect the options and timing of breast reconstruction.

Not everyone who's had breast surgery has reconstruction. Some women decide not to have a breast reconstruction for a number of different reasons. Any decision you make about having a reconstruction should be based on whether it's right for you.

Having a breast reconstruction will not increase the chances of the breast cancer coming back.

Our **Breast reconstruction** booklet is for women considering breast reconstruction after surgery. It explains the different types of reconstruction, and the reasons why women may or may not want to have one.

Chemotherapy

Chemotherapy destroys cancer cells using anti-cancer drugs.

Chemotherapy is given to reduce the risk of breast cancer returning or spreading.

Different types of chemotherapy drugs are used to treat breast cancer. They can be given in different ways and in different combinations.

Your treatment team will decide whether to recommend chemotherapy depending on:

- The size of your breast cancer
- Whether the lymph nodes are affected
- The grade of your cancer
- The oestrogen receptor (ER) and HER2 status
- The result of a genomic assay test if this is done

Our booklet **Understanding your pathology results** explains these in more detail.

Following surgery, your doctors may use one of the decision-making tools described on page 12 to decide if chemotherapy is suitable for you.

When is it given?

Chemotherapy can be given after surgery and before radiotherapy. This is known as adjuvant chemotherapy. The aim is to reduce the risk of the cancer coming back, by destroying any cancer cells that may have spread from the breast to other parts of your body.

If you're having chemotherapy after surgery, it will usually start a few weeks after surgery to give your body time to recover.

Chemotherapy can also be given before surgery. This is called primary or neo-adjuvant chemotherapy. The aim is to slow the growth of the cancer or shrink a larger breast cancer before surgery. This may mean breast-conserving surgery is an option, rather than a mastectomy.

There has also been research into giving chemotherapy both before and after surgery, and this may be considered for some people.

How is it given?

Most chemotherapy drugs are given into a vein (intravenously) for primary breast cancer. However, some can be taken by mouth as tablets or capsules (orally).

Having chemotherapy may affect your fertility. If this is important to you, discuss this with your team before you start treatment. You can read more in our **Fertility, pregnancy and breast cancer** booklet.

You can read more detailed information, including chemotherapy side effects, in our **Chemotherapy for breast cancer** booklet.

Once you know which chemotherapy you are going to have, you can also read our information on specific chemotherapy drugs.

Radiotherapy

Radiotherapy uses carefully measured and controlled high energy x-rays to destroy any cancer cells that might be left behind in the breast and surrounding area after surgery. You may hear this called adjuvant (additional) therapy.

Which areas are treated?

If you've had breast-conserving surgery, you may have:

- Radiotherapy to the remaining breast tissue on that side (whole breast radiation)
- Radiotherapy to the area where the breast cancer was (partial breast radiation)

Not everyone who has breast-conserving surgery will need radiotherapy.

Sometimes your specialist may recommend an extra boost of radiotherapy to the area where the invasive breast cancer was removed.

Radiotherapy to the chest wall may be recommended after a mastectomy. This is more likely if cancer cells are found in the lymph nodes under the arm or if a large area of breast cancer is found.

Radiotherapy can be given to the lymph nodes under the arm instead of surgery, or after a sentinel lymph node biopsy (see page 22). Research has shown that radiotherapy can be as effective in treating the lymph nodes under the arm as removing them surgically. Radiotherapy seems to be associated with fewer side effects than surgery. However, radiotherapy is not suitable for everyone. Speak to your doctor about whether surgery or radiotherapy under the arm is the most suitable treatment for you.

Radiotherapy may be recommended to the lymph nodes on the lower part of your neck, around your collarbone on the side you have had your surgery. The radiotherapy may also include the nodes in between the breasts on either side of the breastbone (sternum). This is called the internal mammary chain. Whether you have radiotherapy to these other areas depends on the grade and size of your cancer, and whether the lymph nodes under the arm contained cancer cells.

When is it given?

Radiotherapy for primary breast cancer is given after surgery.

If you're having chemotherapy after surgery, radiotherapy is usually given after chemotherapy has finished.

You'll usually be given radiotherapy daily for one to three weeks as an outpatient, which means you don't have to stay in hospital overnight.

Radiotherapy will usually start a few weeks after surgery or chemotherapy. However, some people have to wait a bit longer because of medical reasons or waiting for an appointment.

Research is looking at different or newer ways of giving radiotherapy. This includes intraoperative radiotherapy (where radiotherapy is given in one dose during surgery), and giving the radiotherapy over a shorter time.

For more detailed information see our **Radiotherapy for primary breast cancer** booklet.

Hormone (endocrine) therapy

Some breast cancers use oestrogen in the body to help them to grow. These are known as oestrogen receptor positive or ER+ breast cancers.

Hormone therapies block or stop the effect of oestrogen on breast cancer cells. Different hormone therapy drugs do this in different ways.

Hormone therapy will only be prescribed if your breast cancer is ER+.

Invasive breast cancers are tested to see if they are ER+ using tissue from a biopsy or after surgery. If your cancer is ER+, your specialist will discuss with you which hormone therapy they think is most appropriate.

If your breast cancer is not stimulated by oestrogen it is known as oestrogen receptor negative (ER-), and hormone therapy won't be of benefit.

Types of hormone therapy

Examples of breast cancer hormone therapies include:

- Tamoxifen
- Anastrozole
- Letrozole
- Exemestane
- Goserelin

The type of hormone therapy given will depend on a number of factors, such as whether you have been through the menopause.

Your treatment team will also consider if you have an increased risk of, or have, osteoporosis (thinning of the bones). Some hormone therapies increase the risk of developing osteoporosis in the future. For more information see our osteoporosis and breast cancer information at **breastcancernow.org**

When is it given?

Hormone therapy is usually started after surgery (and chemotherapy, if you're having it) to reduce the risk of the breast cancer coming back or spreading elsewhere in the body.

You may have it at the same time as radiotherapy or your doctor may suggest waiting to finish your radiotherapy before starting hormone therapy.

Hormone therapy is taken for several years. Some people have the same drug throughout, while others may be advised to take one type for the first few years and then switch to another type.

Sometimes hormone therapy is given before surgery (called primary or neo-adjuvant hormone treatment). This may be done to reduce the size of the cancer before surgery.

If someone isn't able to have surgery for some reason they may be started on hormone therapy.

You will not usually be offered hormone therapy if you have DCIS, unless you do not have radiotherapy following breast-conserving surgery.

We have individual booklets on all the different hormone therapies used in primary breast cancer. Call us on **0808 800 6000** or visit **breastcancernow.org** for more information.

Targeted (biological) therapies

Targeted therapies are a group of drugs that block the growth and spread of cancer. They target and interfere with processes in the cells that help cancer grow.

The type of targeted therapy you are given will depend on the features of your breast cancer.

The most widely used targeted therapies are for people with HER2 positive breast cancer. HER2 is a protein that helps cancer cells grow.

Examples of targeted therapies for HER2 positive breast cancer include trastuzumab, pertuzumab and neratinib.

If your cancer is found to be HER2 negative, then targeted therapies given for HER2 positive breast cancer will not be of any benefit.

When are they given?

Targeted therapies are usually given after surgery (and chemotherapy, if you're having it) to reduce the risk of the breast cancer coming back or spreading elsewhere in the body.

Sometimes targeted therapies are given before surgery.

For information about different types of targeted therapies, see **breastcancernow.org/targeted-therapy**

Bisphosphonates

Bisphosphonates are a group of drugs that can reduce the risk of breast cancer spreading in postmenopausal women. They can be used regardless of whether the menopause happened naturally or because of breast cancer treatment.

Bisphosphonates can also slow down or prevent bone damage. They're often given to people who have, or are at risk of, osteoporosis (thinning of the bones).

Bisphosphonates can be given as a tablet or into a vein (intravenously).

Your treatment team can tell you if bisphosphonates would be suitable for you.

When are they given?

Bisphosphonates are usually given if you are postmenopausal and have had treatment for invasive breast cancer that has spread to the lymph nodes under the arm. Sometimes they're given if you're postmenopausal and have invasive breast cancer that has not spread to the lymph nodes.

See our bisphosphonate drug booklets **Zoledronic acid** and **Sodium clodronate** for more information.

WELLBEING AND PRACTICAL SUPPORT

Emotional wellbeing

After a diagnosis of breast cancer, you may feel more stressed or anxious than usual. Making decisions about treatment can feel overwhelming and you may feel uncertain about the future.

There are support services available to help you, see page 36 for more information.

Diet

Some treatments for breast cancer can have side effects which can affect how you eat and drink. But eating healthily can make a difference to your energy levels and general wellbeing.

Find more information on healthy eating during treatment in our **Diet and breast cancer** booklet.

Physical activity

Staying physically active during treatment for breast cancer can be difficult, especially if you have side effects and feel unwell. But it can help to reduce some side effects of treatment and may reduce the risk of breast cancer coming back.

If you have surgery as part of your treatment, our **Exercises after breast cancer surgery** leaflet contains shoulder and arm exercises that can help you regain the movement and function you had before your operation.

For more information see our exercise and breast cancer information at **breastcancernow.org**

Complementary therapies

Some people with breast cancer use complementary therapies alongside their conventional medical treatments.

Tell your breast care nurse or doctor about any complementary therapies you're thinking of using to check they won't affect any treatment you're having. This includes herbal and vitamin supplements.

For more information see our complementary therapies information at **breastcancernow.org**

Work and finances

Many people worry about the impact of breast cancer on their work and financial situation.

Anyone who has or has had breast cancer is classed as disabled. This means you are protected against discrimination at work and during the recruitment process.

You may also be entitled to certain benefits and additional support. Some hospitals provide a welfare and benefits service.

For more information on financial support, benefits and work see our website **breastcancernow.org**

FINISHING TREATMENT

Everyone's experience of moving on after breast cancer is different. How you feel, both physically and emotionally, may be very different to someone else who has had a similar diagnosis and treatment.

Many people are surprised at how emotional they feel when they finish treatment and for many people, the need for support and information doesn't end when treatment finishes.

Follow-up

At the end of your hospital-based treatment, you may continue to be monitored to check how you are recovering. This is known as follow-up. How you are followed up will depend on your individual needs and on the arrangements at the hospital you have been treated in. You'll probably find your contact is more frequent at first, becoming less so as time goes on.

Whichever way you are followed up you will be given a name and contact number to ring (usually the breast care nurse) if you have any questions or concerns between appointments. You can always talk to your GP about any concerns you have.

For more information about follow-up, see our booklet **After breast cancer treatment: what now?**

Moving Forward

We know it's not always ‘back to normal’ when you finish hospital treatment for primary breast cancer.

That’s why Moving Forward is here. Through supportive, open conversations in a safe, confidential space, you’ll connect with people who understand. And you’ll find the tools you need to feel more empowered, confident and in control. Ready to move forward with your life.

You can attend Moving Forward either face-to-face or online.

You can also order Breast Cancer Now’s **Moving Forward** booklet which looks at the subjects covered by the course.

Becca

With Becca, the breast cancer support app, we’re with you even when your treatment has finished.

Experiencing side effects, wondering how to live a healthier lifestyle, or finding it difficult to adapt to a ‘new normal’? Our free mobile app offers tailored strategies and bite-sized tips to help you move forward after treatment.

Find out more at **breastcancernow.org/becca**

FURTHER SUPPORT

Breast Cancer Now has a number of services to help support you.

Helpline

Worried about breast cancer, or have a question about breast health? Our specialist team are ready to listen on our free Helpline. Call **0808 800 6000** (Monday to Friday 9am–4pm and Saturday 9am–1pm). You can also email **nurse@breastcancernow.org**

Forum

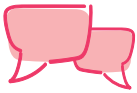
Through our online Forum, we're with you every step of the way – alongside thousands of people with real experience of breast cancer. Look around, share, ask a question or support others at **breastcancernow.org/forum**

Someone Like Me

You never have to face breast cancer alone. Find somebody who understands what you're going through with Someone Like Me. Call our Someone Like Me service on **0114 263 6490**.

Trusted information

Find trusted information you might need to understand your situation and take control of your diagnosis and order booklets at **breastcancernow.org/publications**



Face-to-face and online support

Everyone affected by breast cancer can turn to us for support. Whoever you are, and whatever your experience of breast cancer, our free services are always here for you. The whole way through. Visit **breastcancernow.org/oursupport** for more information.

HELP US TO HELP OTHERS

Breast Cancer Now is a charity that relies on voluntary donations and gifts in wills. If you have found this information helpful, please visit **breastcancernow.org/give** to support our vital care and research work.

NOTES

ABOUT THIS BOOKLET

Treating primary breast cancer was written by Breast Cancer Now's clinical specialists, and reviewed by healthcare professionals and people affected by breast cancer.

For a full list of the sources we used to research it:
Email **health-info@breastcancernow.org**

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We welcome your feedback on this publication:
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Email **health-info@breastcancernow.org**

Medical disclaimer

We make every effort to ensure that our health information is accurate and up to date, but it doesn't replace the information and support from professionals in your healthcare team. So far as is permitted by law, Breast Cancer Now doesn't accept liability in relation to the use of any information contained in this publication, or third-party information included or referred to in it.

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BREAST CANCER NOW The research & care charity

At Breast Cancer Now we're powered by our life-changing care. Our breast care nurses, expertly trained staff and volunteers, and award-winning information make sure anyone diagnosed with breast cancer can get the support they need to help them to live well with the physical and emotional impact of the disease.

We're here for anyone affected by breast cancer. And we always will be.

For breast cancer care, support and information, call us free on **0808 800 6000** or visit **breastcancernow.org**

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Breast Cancer Now
Fifth Floor,
Ibex House,
42–47 Minories,
London EC3N 1DY

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