



BREAST CANCER DURING AND ONE YEAR AFTER PREGNANCY

BREAST
CANCER
NOW The research
& care charity

INTRODUCTION

This booklet is for anyone diagnosed with breast cancer during pregnancy or in the first year after giving birth.

If you're diagnosed with breast cancer during pregnancy, you can usually have effective treatment for your breast cancer without it affecting your baby's development.

Being diagnosed during pregnancy or soon after giving birth is rare, and this can make you feel very alone. You may feel shock, fear and sadness at a time that's usually happy.

We hope this booklet answers some of your questions and helps you discuss your treatment options and other issues that are important to you and your family with your treatment team.

We recommend you read it together with our **Treating primary breast cancer** booklet.

You may also find it useful to read our **Breast cancer in younger women booklet**, which covers issues specific to younger women with breast cancer.

How far you are into your pregnancy when your breast cancer is diagnosed will affect the treatment options suitable for you.

A pregnancy is measured in 'trimesters', each trimester representing a number of weeks:

- first trimester – the first 12 weeks
- second trimester – 13–28 weeks
- third trimester – 28 weeks to delivery

In this booklet, we explain which treatments may or may not be recommended depending on which trimester you are in.

DIAGNOSING BREAST CANCER DURING OR SOON AFTER PREGNANCY

If you have any symptoms of breast cancer, your GP will examine your breasts and decide whether to refer you to a breast clinic.

At the clinic you will usually have a breast examination, followed by one or more of the following tests.

Ultrasound scan

You'll usually be offered an ultrasound scan, which uses sound waves to produce an image of the breast.

This is completely safe and will not affect your baby in any way.

Mammogram

You may also be offered a mammogram (breast x-ray). Shielding can be used to protect your baby from the radiation.

MRI scan

Although ultrasound and mammograms are usually the best way of detecting any early changes within the breast, occasionally an MRI (magnetic resonance imaging) scan is used as well. An MRI doesn't expose the body to x-ray radiation.

The safety of using breast MRI during pregnancy has not been established. However, most small studies looking at MRI during pregnancy show it's safe, especially after the first three months (the first trimester).

Core biopsy or fine needle aspiration

A core biopsy involves using a hollow needle to take a sample of breast tissue.

A fine needle aspiration (FNA) uses a fine needle and syringe to take a sample of breast cells.

The sample is then sent to the laboratory where it is looked at under a microscope.

Both tests are safe for you and your baby.

Core biopsies are more commonly used for pregnant women and may be more reliable in making a diagnosis.

Bruising to the breast is common after a biopsy in pregnant women because of the increased blood supply to the breast at this time.

You will usually be able to have a breast biopsy even if you are breastfeeding, although there may be a risk of developing an infected duct with milk leaking (a milk fistula).

Occasionally, it's not possible to make a diagnosis using a core biopsy. In this case you may have a vacuum assisted biopsy or an excision biopsy under local anaesthetic. This involves taking a larger sample of breast tissue. Your treatment team will advise what would be best for you and your baby.

Other scans

CT (computerised tomography) scans and bone scans are usually not recommended during pregnancy due to the risk of radiation to the baby.

IS IT SAFE TO CONTINUE MY PREGNANCY?

Terminating a pregnancy is not usually recommended when breast cancer is diagnosed.

Most women continue their pregnancy while having breast cancer treatment. However, some women choose not to.

The decision to terminate a pregnancy is a very personal one. It can be made only by you, or you and your partner if you have one, following a discussion with your treatment team and obstetrician (pregnancy and childbirth doctor).

There's no evidence to suggest a termination will improve the outcome for women diagnosed with breast cancer during pregnancy.

However, a termination may be discussed if chemotherapy is recommended during the first trimester. This might be the case if you have been diagnosed with secondary breast cancer (when cancer cells from the breast have spread to other parts of the body such as the bones, lungs, liver or brain).

Whatever you decide, it's important to take time to make the right choice for you after discussions with your treatment team.

WHO WILL CARE FOR ME DURING AND AFTER MY PREGNANCY?

The teams looking after you will include cancer specialists, obstetricians and midwives.

You may be referred to a breast cancer team with expertise in treating women diagnosed during pregnancy.

Your maternity care should be provided by an obstetrician and midwife who have experience in caring for women with cancer in pregnancy.

CAN BREAST CANCER DURING PREGNANCY AFFECT THE BABY?

There's no evidence that having breast cancer during pregnancy affects your baby's development in the womb.

You cannot pass cancer on to your baby and there's no evidence that your child will develop cancer in later life as a result of you having breast cancer while pregnant.

IS BREAST CANCER DURING PREGNANCY MORE AGGRESSIVE?

There's no conclusive evidence that breast cancer during pregnancy is more aggressive than breast cancer occurring at other times.

However, it can be more difficult to detect a cancer in the breast during pregnancy. This means there could be a delay in diagnosis and the cancer could be found at a later stage.

TREATMENT DURING PREGNANCY AND AFTER THE BIRTH

Effective breast cancer treatment can be given during pregnancy and your team will discuss your options.

Generally, the treatment you're offered during pregnancy will depend on the type and extent of your breast cancer, your individual situation and how far you are into your pregnancy.

The aim will be to give you the most effective treatment for your breast cancer while keeping your baby safe.

The following treatments may be given depending on your trimester and whether you have had your baby.

If you're near the end of your pregnancy, your treatment team may delay treatment until after the birth.

If you're breastfeeding, you'll be advised to stop before having any treatment.

Surgery

Surgery can safely be done during all trimesters of pregnancy.

You may be offered a choice between a mastectomy and breast-conserving surgery.

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

Breast-conserving surgery is removal of the cancer with a margin (border) of normal breast tissue around it. It's also known as wide local excision or lumpectomy.

During the first trimester of pregnancy, you're more likely to be offered a mastectomy. This is because not all women who have a mastectomy need radiotherapy, whereas radiotherapy is

usually needed after breast-conserving surgery. Radiotherapy is generally not recommended at any time during pregnancy because of the small risk of radiation to the baby (see page 8).

If you're diagnosed in your second trimester and will be having chemotherapy after your surgery, breast-conserving surgery may be an option. This is because radiotherapy will be given after your chemotherapy has finished and after your baby has been born.

If you're in your third trimester, breast-conserving surgery may be an option as radiotherapy can be given after the baby is born.

Whichever type of surgery you have, it will involve having a general anaesthetic. This is generally considered safe while you are pregnant although there's a very slight risk of miscarriage in early pregnancy.

Breast reconstruction

Breast reconstruction at the time of surgery (immediate reconstruction) is not normally offered during pregnancy. Reasons include a higher risk of bleeding during pregnancy and to minimise the time under general anaesthetic.

Breast reconstruction will generally be offered at a later date (a delayed reconstruction).

For more information about reconstruction, see our **Breast reconstruction** booklet.

Surgery to the lymph nodes

If you have invasive breast cancer, your treatment team will usually want to check if any of the lymph nodes under the arm contain cancer cells.

You may have one or a few lymph nodes removed for testing. This is called a sentinel lymph node biopsy and is usually done at the same time as your cancer surgery.

A sentinel lymph node biopsy involves injecting a small amount of radioactive material (radioisotope) into the area around the cancer. This will not affect the baby. However, a blue dye that is usually injected with the radioisotope is generally not

recommended during pregnancy. Your surgeon will discuss whether a sentinel node biopsy is a suitable option for you.

Some people will have all the lymph nodes removed, known as a lymph node clearance.

You can find out more in our **Treating primary breast cancer** booklet.

Chemotherapy

Chemotherapy destroys cancer cells using anti-cancer drugs.

Certain combinations of chemotherapy drugs can be given during pregnancy.

Anti-sickness and steroid treatments used to control side effects of chemotherapy are considered safe for pregnant women.

Chemotherapy should not be given during the first trimester as it may affect the development of an unborn baby or cause miscarriage.

Generally, chemotherapy during the second and third trimesters is safe. Most women treated during this time go on to have healthy babies, although there's some evidence to suggest they may be born early and have a slightly lower birth weight.

The growth and wellbeing of your baby will be monitored by ultrasound. You'll be advised to stop having chemotherapy three to four weeks before your due date to avoid complications like infection during or after the birth.

Chemotherapy can continue after your baby is born.

For more general information see our **Chemotherapy for breast cancer** booklet.

Radiotherapy

Radiotherapy uses high energy x-rays to destroy cancer cells.

Radiotherapy is not usually recommended at any stage of pregnancy, as even a very low dose may carry a risk to the baby.

Your treatment plan during pregnancy will try to avoid radiotherapy or delay it until after the birth.

If there is no other option than to have radiotherapy during pregnancy, there are some changes that can be made to protect the baby.

For more general information about radiotherapy, see our **Radiotherapy for primary breast cancer** booklet.

Hormone (endocrine) therapy

Some breast cancers use the hormone 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 therapies are not given during pregnancy. If your breast cancer is oestrogen receptor positive, you will begin hormone therapy after your baby has been born.

Breast cancers diagnosed during pregnancy are less likely to be ER+.

See our **Treating primary breast cancer** or our individual hormone drug booklets for more information.

Targeted (biological) therapies

This is 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 HER2 positive breast cancer. HER2 is a protein that helps cancer cells grow.

Targeted therapies are not usually given during pregnancy. If targeted therapy is suitable for you, you will start it after your baby is born.

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

GIVING BIRTH

Many women diagnosed during pregnancy complete the full term of their pregnancy and do not have any problems during childbirth because of their breast cancer treatment.

When you have your baby will depend on the treatment you need and your expected due date.

If your baby is likely to be born early, you'll be offered a course of steroid injections. This is to help your baby's lung development and reduce the chance of the baby developing breathing problems.

Where possible your treatment team will avoid a caesarean section as there can be complications from it. For example, you can be more likely to develop an infection if your immune system has been affected by chemotherapy.

BREASTFEEDING

Your treatment team and midwife will give you advice about breastfeeding. This will usually depend on where you are in your treatment plan.

If you were breastfeeding when you were diagnosed with breast cancer, your treatment team will recommend you stop breastfeeding.

If you have questions about breastfeeding, talk to your treatment team and other breastfeeding experts such as your midwife for support and advice.

Breastfeeding after surgery

Breastfeeding may be possible for some women diagnosed during pregnancy after breast surgery, but not while having chemotherapy, radiotherapy, hormone or targeted therapy. Breastfeeding is most successful from the other, non-treated breast.

Chemotherapy and breastfeeding

If you are having chemotherapy you will be advised not to breastfeed and for some time afterwards. This is because the

chemotherapy drugs can be passed on to your baby through the breast milk.

If you are towards the end of your chemotherapy you may want to express milk. You will not be able to use this milk to feed your baby. But expressing milk means you'll still be able to produce milk to breastfeed your baby after you finish chemotherapy.

Radiotherapy and breastfeeding

Although many women are able to produce milk from the treated breast, the amount of milk is often reduced.

Breastfeeding from a breast that has been exposed to radiotherapy can cause an infection (mastitis), which can be difficult to treat.

Breastfeeding from the other, non-treated breast may be possible if you are not having any drug treatments.

Targeted therapy and breastfeeding

If you are having targeted therapy, breastfeeding is not recommended while having this treatment or for at least seven months after the last dose.

This is because targeted therapy drugs can be passed to your baby through breast milk.

Hormone therapy and breastfeeding

Hormone therapy is not recommended during breastfeeding as the drugs may pass through the bloodstream into the breast milk.

If you cannot breastfeed

You will still be able to bond with and care for your baby if you cannot breastfeed.

Some hospitals may provide donated breast milk for your baby.

The United Kingdom Association for Milk Banking (UKAMB) supports milk banking in the UK. There is strict guidance to ensure donor breastmilk is safe (see page 13).

CONTRACEPTION AFTER PREGNANCY

It's possible to become pregnant again very soon after the birth of your baby, even if you're breastfeeding and your periods have not returned.

You'll have a chance to discuss contraception after your baby is born. Your treatment team will usually recommend barrier methods of contraception, such as condoms.

The contraceptive pill is not recommended for women who have had breast cancer because it contains hormones.

An intrauterine device (IUD or coil) may be used as long as it's not the type that releases hormones. The IUD can be inserted within 48 hours of the birth. If not inserted within 48 hours, you'll be advised to wait until four weeks after the birth.

FUTURE FERTILITY

If having more children of your own in the future is important to you, and you want to find out about possible options for preserving fertility, you can discuss this with your treatment team before starting treatment. This may be possible if you are diagnosed after pregnancy.

You can find out more about fertility and breast cancer treatment in our booklet **Fertility, pregnancy and breast cancer**.

MANAGING DURING AND AFTER PREGNANCY

Being pregnant or caring for a new baby while having treatment for breast cancer is both physically and emotionally draining.

Talk to people close to you about how you feel and take up any offers of practical support and help.

You can also talk to your treatment team or your midwife if you are feeling overwhelmed or have any concerns.

As breast cancer during pregnancy is not very common, you may feel alone at this time. You might find it helpful to share your feelings with others who have had a similar experience to you.

Someone Like Me

Breast Cancer Now can put you in touch with another woman who was diagnosed with breast cancer during pregnancy through our Someone Like Me service. Call **0345 077 1893** or email someonelikeme@breastcancer.org to find out more.

Younger Women Together

At a Breast Cancer Now Younger Women Together event, you can meet around 30 other women under 45 who've been diagnosed with primary breast cancer. Visit breastcancer.org or call **0345 077 1893** to find out more.

Younger Breast Cancer Network

This private Facebook group was set up by younger women diagnosed with breast cancer. You can find it on Facebook by searching 'Younger Breast Cancer Network'. Several members of the group were diagnosed during pregnancy or soon after giving birth.

Mummy's Star

Mummy's Star (mummysstar.org) is a charity supporting pregnancy through cancer and beyond. Contact them directly for details of how to join their private online forum.

Breastfeeding support

United Kingdom Association for Milk Banking (ukamb.org) is a charity that supports human milk banking in the UK.

The National Breastfeeding Helpline (0300 100 0212) offers support from trained volunteers, who are also mums who have breastfed.

You can also find support on the NHS website nhs.uk/conditions/pregnancy-and-baby/breastfeeding-help-support

Financial support

If you are struggling with extra costs, you may be able to get financial support. Macmillan Cancer Support has lots of information on its website macmillan.org.uk or you can call the helpline 0808 808 00 00 for advice.

Turn2us (turn2us.org.uk) is a charity that can help you access any benefits, grants and financial services that are available to you.

Mummy's Star also has a small grants programme. See mummysstar.org for more information.

Further reading

Royal College of Obstetricians and Gynaecologists: Pregnancy and Breast Cancer – Information for you (2014)

rcog.org.uk/en/patients/patient-leaflets/pregnancy-and-breast-cancer

This information may help if you are pregnant and have breast cancer or are worried that you may have. This is a patient-friendly version of the publication below

Royal College of Obstetricians and Gynaecologists: Pregnancy and Breast Cancer (2011)

rcog.org.uk/globalassets/documents/guidelines/gtg_12.pdf

This is a resource aimed at healthcare professionals.

HELP US TO HELP OTHERS

If you have found this information helpful, would you consider making a donation to support our care and research work? You can donate on our website [**breastcancer.org/donate**](http://breastcancer.org/donate)

ABOUT THIS BOOKLET

Breast cancer during and one year after pregnancy 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@breastcancer.org



You can order or download more copies from
breastcancer.org/publications



We welcome your feedback on this publication:
health-info@breastcancer.org



For a large print, Braille or audio CD version:
Email health-info@breastcancer.org

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**

Breast Cancer Now

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



Patient Information Forum

Breast Cancer Now is a company limited by guarantee registered in England (9347608) and a charity registered in England and Wales (1160558), Scotland (SC045584) and Isle of Man (1200). Registered Office: Fifth Floor, Ibex House, 42–47 Minories, London EC3N 1DY.