

# BREAST CANCER DURING AND AFTER PREGNANCY

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## About this booklet

If you've been diagnosed with breast cancer during pregnancy or within 2 years of giving birth, it's natural to have lots of questions.

Worrying about your baby's health as well as your own might feel overwhelming at an already challenging time.

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.

This booklet aims to answer your questions and help you discuss your treatment options and other issues that are important to you and your family with your treatment team.

You may also find it useful to read our **Treating primary breast cancer** and **Breast cancer in younger women** booklets.

### Pregnancy trimesters

**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 represents a number of weeks:

- First trimester – the first 12 weeks
- Second trimester – 13 to 27 weeks
- Third trimester – 28 weeks to delivery

This booklet explains which treatments may or may not be recommended depending on which trimester you're in and whether you've had your baby.

## Tests and scans during pregnancy or after giving birth

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 have a breast examination, usually followed by 1 or more of the following tests.

### Ultrasound scan

You'll usually be offered an ultrasound scan first, 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).

The dose of radiation the baby could be exposed to is very small and this can be minimised by shielding your bump using a lead shield or gown.

You may be offered a more detailed type of mammogram called a digital breast tomosynthesis (DBT). This can give much clearer images of younger women's breasts, which are more dense, and breasts that are producing milk. It's considered safe during pregnancy and breastfeeding.

### MRI scan

Although ultrasound scans and mammograms are often used to detect early changes in the breast, sometimes an MRI (magnetic resonance imaging) scan is used as well.

An MRI doesn't expose the body to radiation and is considered safe during pregnancy.

MRI scans using contrast dye are normally not recommended, so they're usually done without this during pregnancy.

## **Core biopsy**

A core biopsy uses a hollow needle to take a small sample of tissue from the breast and sometimes lymph nodes. This is done using a local anaesthetic. The sample is then sent to the laboratory where it is looked at under a microscope.

This test is safe for you and your baby.

Bruising to the breast is common after a biopsy, particularly in pregnant women due to increased blood supply to the breast at this time.

## **Core biopsy and breastfeeding**

You should be able to have a breast biopsy if you're breastfeeding.

There is a small risk of developing a milk fistula. This is when milk leaks from the skin of the breast after a milk duct is damaged by the biopsy needle.

A milk fistula is uncommon but is more likely to happen if the biopsy site is close to the nipple or if a larger needle is being used.

If your baby is with you in clinic, it may help for the baby to feed before the biopsy or to express milk from that breast beforehand. Your treatment team can talk through any concerns you may have.

## **Vacuum assisted or excision biopsy**

Occasionally, it's not possible to make a diagnosis from a core biopsy. In this case, you may be offered 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 test is most suitable for you.

## **Fine needle aspiration**

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.

This test is safe for you and your baby. You may feel some pressure during the procedure, but it shouldn't be too painful.

Core biopsies are more commonly used for pregnant women than FNAs as they are more reliable in making a diagnosis of breast cancer.

## **Other scans**

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

CT scans are safe during breastfeeding and there is no need to discard any milk.

If you need a bone scan during breastfeeding, you'll usually be given information recommending you discard the breast milk for a short time after the bone scan. This is due to the radioactive material used for this scan.

## Is it safe to continue my pregnancy?

Most women continue their pregnancy while having breast cancer treatment.

There's no evidence that ending a pregnancy (termination) will improve your outcome if you're diagnosed with breast cancer during pregnancy.

However, some women may choose not to continue their pregnancy.

Depending on the type and stage of your cancer, your treatment team may recommend you start chemotherapy without delay. In this case, they may discuss the possibility of a termination if you're in the first trimester as chemotherapy is not given in early pregnancy.

It's important to discuss how you're feeling and any concerns you have about your pregnancy with your treatment team and pregnancy and childbirth doctor (obstetrician). This will help you make a decision that's right for you and your family.

## Who will care for me during and after my pregnancy?

The teams looking after you will include a breast care nurse, breast surgeon, oncologist, obstetrician and midwife who have experience in caring for women with breast cancer during pregnancy.

Your treatment team will let you know if you can continue accessing your maternity care and treatment at your local hospital. Sometimes you may have to be referred to a larger hospital depending on your circumstances.

## Additional scans

In addition to the normal scans during pregnancy, you may be offered growth scans from 28 weeks.

You may be referred to a heart specialist (cardiologist) if you've had any problems with your heart function during your breast cancer treatment. You may also be offered an ultrasound scan to check your heart, known as an echocardiogram or echo. You can talk to your obstetric team about this.

## 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 cells on to your baby.

If you have an inherited altered gene that increases the risk of breast cancer, such as BRCA1 or BRCA2, your baby could inherit this altered gene. See our information about "Breast cancer in families" at [breastcancer.org](https://breastcancer.org) to learn more.

## Is breast cancer during pregnancy more aggressive?

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

Breast cancer during pregnancy can be more difficult to detect. This means breast cancer during pregnancy is sometimes found at a later stage than it otherwise would be.

## Treatment during pregnancy and after the birth

Most breast cancer treatments can be given during pregnancy.

Your treatment team will discuss the options with you and if your treatment plan will be adapted depending on where you are in your pregnancy.

You may feel overwhelmed with a lot of new information. It can be useful to take someone with you to appointments who can listen and help you remember what was said.

The treatment you're offered during pregnancy will depend on factors such as the type and stage of your breast cancer and how far into your pregnancy you are.

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

The following treatments may be given depending on which trimester you're in and whether you've had your baby.

If you're near the end of your pregnancy, your treatment team may consider delaying treatment until after you've given birth.

If you're breastfeeding, you'll likely be advised to stop before having any treatment. However, this will depend on the type of treatment you're offered. If your breast cancer only affects 1 breast, you may still be able to breastfeed from the unaffected breast.

If you are advised to stop breastfeeding your treatment team or midwife will offer advice on how to do this.



## Surgery

You can have surgery safely during all trimesters of pregnancy.

The 2 main types of breast surgery are:

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

Whichever type of surgery you have, it will involve having a general anaesthetic. This is generally considered safe while you're pregnant although there's a very slight risk of miscarriage in early pregnancy. Your treatment team will discuss this risk with you in more detail.

### During the first trimester

During the first trimester of pregnancy, you're more likely to be offered a mastectomy. This is because most women who have a mastectomy do not need radiotherapy, but 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 more about radiotherapy on page 11).

### During the second trimester

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

### During the third trimester

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

## Breast reconstruction

Breast reconstruction at the same time as your mastectomy (immediate reconstruction) is not normally offered during pregnancy. This is because there can be an increased risk of complications which can lead to delays in your breast cancer treatment. The operation often takes longer, meaning you and your baby will be exposed to a longer general anaesthetic.

You can talk to your treatment team about having reconstruction at a later date (delayed reconstruction), after your baby is born.

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 cancer cells have spread to the lymph nodes (glands) under your arm.

You may have 1 or a few lymph nodes removed for testing. This is called a sentinel lymph node biopsy.

The sentinel lymph node is the first lymph node cancer cells are likely to spread to. There may be more than 1 sentinel lymph node.

The procedure is usually done at the same time as your cancer surgery but may be done before.

A sentinel lymph node biopsy involves injecting a small amount of radioactive material (radioisotope) or a magnetic tracer into your breast. This will not affect your baby.

However, a blue dye that can be injected during the surgery as another way of identifying the sentinel lymph node is not recommended during pregnancy.

If you're breastfeeding and are given the blue dye, you should express and discard your milk for 24 hours afterwards.

If tests before your operation show your lymph nodes contain cancer cells, your surgeon is likely to recommend a lymph node clearance. This is when all the lymph nodes under the arm are removed.

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

## Chemotherapy

Chemotherapy destroys cancer cells by affecting their ability to divide and grow.

Certain chemotherapy drugs can be given during pregnancy. Your treatment team will discuss which drugs you'll be offered.

Chemotherapy is not recommended during the first trimester as it may affect the development of an unborn baby or cause miscarriage.

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

Your obstetric and midwife team will monitor the growth and wellbeing of your baby.

You'll be advised to stop having chemotherapy 2 to 3 weeks before your due date to avoid complications such as infection during or after giving birth.

Side effects of chemotherapy include feeling sick (nausea) and being sick (vomiting). Anti-sickness and steroid treatments used to control and treat this are considered safe for pregnant women.

Chemotherapy can continue after your baby is born, but you will not be able to breastfeed (see "Breastfeeding" on page 14).

For more general information about chemotherapy, 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.

If your treatment team would like you to have radiotherapy during pregnancy, they will discuss how your radiotherapy will be adapted 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 oestrogen in the body to help them grow. These are known as oestrogen receptor positive or ER-positive 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 as it's not known whether they can harm a developing baby.

If your breast cancer is ER-positive, you will begin hormone therapy after your baby is born.

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

## **Targeted therapy**

Targeted therapy is the name given to 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.

Targeted therapy is not usually given during pregnancy. As these treatments are newer there's less evidence on how they may affect a developing baby.

If targeted therapy is not used during pregnancy and is suitable for you, you'll start it after your baby is born.

The type of targeted therapy you may be offered will depend on the features of your breast cancer. Your treatment team will discuss this with you.

For information about different types of targeted therapy, see [breastcancer.org/targeted-therapy](https://breastcancer.org/targeted-therapy)

## Giving birth

Most women diagnosed with breast cancer during pregnancy reach the full term of their pregnancy and have a vaginal delivery. However, this may depend on your individual circumstances and the advice of your obstetric and treatment teams. They may consider inducing your pregnancy at 37 weeks depending on what treatment you may still need after your baby is born.

If your obstetric and treatment team are planning for your baby to be born early (before 36 weeks), you will usually be offered a course of steroid injections. This is to help your baby's lung development and reduce the chance of them developing breathing problems when they're born.

If you're having chemotherapy, it's usually advised that you give birth 2 to 3 weeks after your last chemotherapy session. This reduces the chances of developing an infection if your immune system has been affected by chemotherapy.

## Breastfeeding

Your treatment team and midwife will give you advice about whether breastfeeding is possible for you. This will usually depend on what treatment you're offered.

If you're breastfeeding when you're diagnosed with breast cancer, your treatment team may recommend you stop breastfeeding. This will depend on what treatment you will be having.

If you have questions about breastfeeding, talk to your treatment team and other breastfeeding experts, such as your midwife. You can also find breastfeeding organisations that offer support on page 18.

### Breastfeeding after surgery

Depending on the type of surgery you're having, breastfeeding may still be possible. If your breast cancer only affected 1 breast, breastfeeding can often be more successful from the other, unaffected breast. You may still be able to feed from the affected breast – your midwifery team or health visitor can support you with this.

You may also benefit from expressing breast milk to help regulate milk production.

If breastfeeding is important to you, talk to your midwife, health visitor or breastfeeding counsellor for support.

### Chemotherapy and breastfeeding

If you're having chemotherapy, you'll be advised not to breastfeed during treatment and for some time afterwards. This is because chemotherapy drugs can pass on to your baby through your breast milk. They can also affect the quality of your breast milk and how much you produce.

If you're near the end of your chemotherapy, you may want to express milk. You will not be able to use this milk to feed your baby. However, expressing milk should help you produce milk to breastfeed your baby after you finish chemotherapy.

## **Radiotherapy and breastfeeding**

During radiotherapy, you may still produce breast milk from the treated breast. However, a breast that has had radiotherapy may not produce milk as effectively as the non-treated breast in the future and the amount is often reduced.

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

Breastfeeding from the other, non-treated breast may be possible if you're not having any drug treatments, such as chemotherapy, hormone therapy or targeted therapies.

## **Targeted therapy and breastfeeding**

If you're having targeted therapy, breastfeeding is not recommended during treatment or for at least 7 months after the last dose. This is because targeted therapy drugs can pass on to your baby through breast milk.

## **Hormone (endocrine) therapy and breastfeeding**

Breastfeeding is not recommended while you are taking hormone therapy as the drugs may pass through the bloodstream into the breast milk.

## **If you don't breastfeed**

Some women cannot or choose not to breastfeed regardless of whether they have cancer.

If you would like your baby to have breast milk but cannot produce it, some hospitals may provide donated breast milk for your baby. The UK Association for Milk Banking (UKAMB) supports milk banking in the UK (see page 18). There is strict guidance to ensure donor breast milk is safe.

If you have any questions about feeding your baby, talk to your midwife, health visitor or breastfeeding counsellor.

## 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 with your midwifery team or GP after your baby is born. They will usually recommend barrier methods of contraception, such as condoms or female condoms (Femidoms).

The oral contraceptive pill and contraceptive implants contain hormones. They're generally not recommended after a breast cancer diagnosis, even if your breast cancer was not hormone receptor positive.

An intrauterine device (IUD or coil) may be used as long as it's not the type that releases hormones.

An IUD can be inserted within 48 hours of giving birth, but you'll usually be advised to wait 4 weeks after giving birth before having one inserted. It's possible to get pregnant in this time, so it's important to use other non-hormonal methods of contraception such as condoms until your IUD is fitted.

## Future fertility

If you would like more children in the future, it's important to discuss this with your treatment team so they can talk through possible options for preserving your fertility.

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



## Coping during and after pregnancy

Being pregnant or caring for a new baby while having treatment for breast cancer can affect you both physically and emotionally.

It can help to talk to family or friends about how you're feeling. It's also a good idea to take up any offers of practical support and help.

You can talk to your breast care nurse, treatment team, midwife or GP if you're feeling overwhelmed or have any concerns. You can also speak to our specialist nurses on our free helpline **0808 800 6000** or at [breastcancernow.org](https://breastcancernow.org)

### Someone Like Me

You never have to face breast cancer alone. With Someone Like Me, you can find somebody who really understands what you're going through.

We'll match you with a trained volunteer who's had a similar experience to you. They'll be a phone call or email away to answer your questions, offer support or simply listen.

### Younger Women Together

If you're aged 18 to 45, Younger Women Together is for you. It gives you tailored support and the chance to meet people your age who understand what you're going through.

Younger Women Together face-to-face events run in cities across the UK. Or you can sign up to take part online over 4 weeks.

### Mummy's Star

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

## **Breastfeeding support**

The organisations below can provide you with breastfeeding information and support.

### **UK Association for Milk Banking**

[ukamb.org](http://ukamb.org)

A charity that supports human milk banking in the UK.

### **The National Breastfeeding Helpline**

0300 100 0212

A free helpline offering support from trained volunteers, who are also mums who have breastfed.

### **La Leche League GB**

[laleche.org.uk](http://laleche.org.uk)

An organisation providing friendly breastfeeding support from pregnancy onwards.

### **The Breastfeeding Network**

[breastfeedingnetwork.org.uk](http://breastfeedingnetwork.org.uk)

A charity that provides independent breastfeeding support and information.

### **NHS website**

You can find support on the NHS website by visiting [nhs.uk](http://nhs.uk) and searching “breastfeeding help and support”.

## Financial support

If you're struggling with extra costs, you may be able to get financial support.

### Macmillan Cancer Support

[macmillan.org.uk](https://macmillan.org.uk)

Helpline: 0808 808 00 00

Macmillan Cancer Support have lots of information about benefits and financial support on their website, or you can call their helpline for advice.

### Turn2us

[turn2us.org.uk](https://turn2us.org.uk)

A charity that can help you access benefits, grants and financial services.

### Mummy's Star

[mummysstar.org](https://mummysstar.org)

Mummy's Star has a small grants programme that aims to support families by providing financial relief during difficult times.

**20** Call our helpline on **0808 800 6000**

## Further reading

The Royal College of Obstetricians and Gynaecologists has information on its website [rcog.org.uk](http://rcog.org.uk) about pregnancy and breast cancer for the public and healthcare professionals.



We're Breast Cancer Now, the research and support charity. However you're experiencing breast cancer, we're here.

### **Life-changing support**

Whoever you are, and whatever your experience of breast cancer, our free services are here. Whether you're worried about breast cancer, dealing with a diagnosis, working out life with or beyond treatment – or someone you love is.

### **World-class research**

We support over 290 of the brightest minds in breast cancer research. They're discovering how to prevent breast cancer, live well with the disease, and save lives. Every day, they get closer to the next breakthrough.

### **Change-making campaigns**

We fight for the best possible treatment, services and care for everyone affected by breast cancer, alongside thousands of dedicated campaigners.

#### **Could you help?**

We don't get any government or NHS funding for our support services or health information. So, we rely on donations and gifts in wills to make our vital work happen. If you'd like to support us, go to [breastcancernow.org/give](https://breastcancernow.org/give)

# ABOUT THIS BOOKLET

Breast cancer during and 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](mailto:health-info@breastcancer.org)



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## We're here

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### Information you can trust, support you can count on

Whatever breast cancer brings, we're here for you.

Whether you're looking for information about breast cancer or want to speak to someone who understands, you can rely on us.

Call **0808 800 6000** to talk things through with our helpline nurses.

Visit **[breastcancer.org](https://breastcancer.org)** for reliable breast cancer information.

### Breast Cancer Now

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Patient Information Forum

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