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# Lymphoma during pregnancy

This information is about the diagnosis and treatment of lymphoma if you are pregnant. We have separate information about **fertility** after treatment for lymphoma.

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We have separate information about the topics in **bold font**. Please get in touch if you'd like to request copies or if you would like further information about any aspect of lymphoma. Phone 0808 808 5555 or email **information@lymphoma-action.org.uk**.

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## Lymphoma during pregnancy

A diagnosis of lymphoma during pregnancy is quite rare. In the UK, around 1 in 1,000 pregnant women are diagnosed with cancer.

### Hodgkin lymphoma

**Hodgkin lymphoma** (HL) is most common in people between the ages of 15 and 34, and those over 60. It's more common in pregnant women, compared to non-Hodgkin lymphoma (NHL). This might partly be because it generally affects more people who are of childbearing age. Around 1 in 6,000 pregnant women are diagnosed with HL.



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### Non-Hodgkin lymphoma

The risk of developing **non-Hodgkin lymphoma** (NHL) goes up with age. Most people diagnosed are over 55. This might explain why there are fewer cases of NHL compared to HL during pregnancy.

When NHL is diagnosed during pregnancy, it tends to be a fast-growing (**high-grade**) type, such as **diffuse large B-cell lymphoma** (DLBCL) or **peripheral T-cell lymphoma** (PTCL).

**Low-grade NHL** is a slow-growing type of lymphoma. It is diagnosed only rarely during pregnancy.

During pregnancy, there are changes to hormones and the **immune system** – some people have asked whether these could be linked to the development of lymphoma. However, there is no evidence to suggest that this is the case.

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## Diagnosis of lymphoma during pregnancy

To diagnose lymphoma, doctors ask you about any **symptoms** you have. They also do **tests** and **scans**.

### Symptoms

Some of the signs and **symptoms of lymphoma** can be similar to some of the common symptoms of pregnancy, including:

- **sweats**
- aches and pains
- **fatigue** (extreme tiredness)
- **anaemia** (low level of red blood cells), which can make you feel tired and short of breath
- **thrombocytopenia** (low level of platelets), which can increase your risk of bruising and bleeding.

The similarity of these symptoms could delay a diagnosis of lymphoma. However, it seems that pregnant women are no more likely to be diagnosed with **advanced lymphoma** than women who are not pregnant at the time of their diagnosis.



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**I was diagnosed with classic Hodgkin lymphoma when I was 17 weeks pregnant. I was suffering with itchy skin, night sweats and I was getting out of breath easily. I went to A&E as I had a really sharp pain in my chest, which we thought could have been a blood clot. I could also feel something pressing down on my chest when I lay on my back, but I presumed it was related to the pregnancy. I had no idea that extreme tiredness could be a symptom of lymphoma and, again, assumed it was the pregnancy that was the cause of this. The doctors in my local A&E department found a 18cm mass on my chest and I was taken to the cancer ward on the same day. I had more tests, including a biopsy.**

Victoria, affected by lymphoma during pregnancy

## Tests

Usually, a small operation called a **biopsy** is done to confirm a diagnosis of lymphoma. You have a local or generic anaesthetic depending on where the lymph node is in your body. Neither the test nor the **anaesthetic** should harm your unborn child.

## Scans

After a biopsy, doctors do staging tests to find out where in your body the lymphoma is. **Staging** often involves **X-rays**, **CT scans** or **PET scans**, which use a type of energy called '**radiation**'.

The scan you have depends on which trimester of pregnancy you're in as well as which area or areas of your body doctors need to look at. Specialist doctors carefully choose the type of scan you have, discussing their risks and benefits. They also consider any best practice guidelines.

- In general, doctors choose **MRI** or **ultrasound** during pregnancy where possible, because they do not use radiation. You might also have a chest X-ray initially to look for infection.
- If your doctors need to use a CT scan (for example, to check whether you have a blood clot), they use lead protection to avoid radiation to the area that could harm your unborn baby.



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**PET scans**

Doctors normally avoid PET scans during pregnancy. This is because it delivers radiation into the blood circulatory system. The radiation could then reach and harm the unborn baby.

You might have a PET scan once your baby is born. In this case, you'll be given guidance about safety precautions to take afterwards.

You will be radioactive (giving off radiation) for a short while after a PET scan. During this time, you will therefore need to stay away from babies and young children. You should also avoid being around other pregnant ladies. Your medical team will give you clear guidance about this.

### Scans and X-rays after your baby is born

If your baby has already been born, your medical team will give advice about any safety precautions to take in relation to scans. For example:

- If you have a PET scan, your doctors might advise you to avoid close contact with your baby and not to breastfeed for a few hours afterwards. This allows time for the radiation to leave your body. Speak to your medical team for guidance if you are feeding your baby with breast milk and have been advised to have a PET scan.
- Close contact with your baby and breastfeeding is safe after CT and X-ray scans. The radiation passes quickly through your body and does not stay in the breast milk.

If you have questions, ask your medical team for advice.

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## How do doctors decide on a treatment plan?

Your medical team carefully plan your treatment taking **lots of factors into account**:

- the **type of lymphoma** you have, where in your body it is, and how fast it's growing
- which trimester of your pregnancy you are in and the type of treatment you need
- your requests.

Their goal is to cure your lymphoma or to limit its growth for as long as possible. Your health is their priority. They also consider your baby's safety while still in the womb and after birth.



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The health professionals planning your treatment and care specialise in:

- haemato-oncology – treating people with blood cancers
- maternal-foetal medicine (the obstetric or foetal medicine team) – concerned with the health of a mother and her baby before, and shortly after the baby's birth
- neonatologists – medical care of a newborn baby.

We have some **questions you might like to ask about treatment**, and **some questions that are specific to treatment during pregnancy**.

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# Chemotherapy during pregnancy

If you are pregnant, doctors consider how safe **chemotherapy** is for you. This depends on the exact combination of drugs (**regimen**) you have and how many weeks pregnant you are. Doctors also consider the stage of the lymphoma and health risk to the mother.

If you are breastfeeding, it's important to check with your doctor whether it's safe for you to continue to do so. As chemotherapy drugs could be present in your breast milk, you will be advised to avoid breastfeeding during treatment.

> **The doctors recommended chemotherapy. This was my life for the coming months. My mind was cloudy and I was trying to process everything whilst thinking about my new baby. Although there were many lows, I recall feeling strong mentally and pushing myself to get through this. My baby, Savannah, was the most welcomed distraction and I always refer to her as my miracle.**
> Leanne, affected by lymphoma during pregnancy

## First trimester (first 12 weeks)

Wherever possible, doctors don't give treatment with chemotherapy during the first trimester of pregnancy. This is when an unborn baby (foetus) is developing major organs such as the heart and spinal cord. Chemotherapy could harm this process. There is also a higher possibility of **miscarriage** and **stillbirth** if you have chemotherapy during the first trimester. The risks are highest during weeks 2 to 8 of pregnancy.

**Steroids** can be effective at delaying the need to start chemotherapy. These drugs are considered to be safe at any stage of pregnancy.



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### Therapeutic abortion

If you need to begin chemotherapy straightaway, your doctors might advise that you do not continue with the pregnancy. Ending a pregnancy for medical reasons is known as 'therapeutic abortion'.

Therapeutic abortion can be extremely difficult to deal with emotionally. There is support available, for example **counselling**, support groups and online forums. Ask a member of your medical team if they can signpost you to any support services.

**Pregnancy Choices Directory** offers a range of support services. They also have **centres** across England, Scotland and Wales that offer free and confidential counselling, before and after an abortion.

British Pregnancy Advisory Service has **information about abortion services for women in Northern Ireland**.

## Second trimester (weeks 13 to 26) and third trimester (weeks 27 onwards)

In general, chemotherapy is considered to be safe for women and unborn babies after the first trimester of pregnancy. From this point, the placenta acts as a barrier that stops many drugs from reaching the baby. This is the case with **ABVD**, a common regimen for people with **Hodgkin lymphoma**. The **CHOP** regimen is often the first choice treatment for **non-Hodgkin lymphoma**, including for women who are pregnant.

The obstetric or foetal medicine team and lymphoma multidisciplinary medical team work closely throughout and regular checks are made of the mother and baby's health and growth.

Doctors typically advise that you don't have chemotherapy within 3 weeks of your due date. This is to allow your **blood counts** to return to their normal levels before you give birth. Your doctors will take this into account when planning your treatment.

> **I underwent 5 rounds of chemo while I was pregnant, and then 7 once I gave birth. I am classed as being in remission now and my baby boy is 8 months old.**
>
> Victoria, affected by lymphoma during pregnancy



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## Radiotherapy during pregnancy

Typically, **radiotherapy** is avoided during pregnancy. However, if it is given, it is usually given only to the neck and chest areas.

If doctors recommend radiotherapy for you, they might advise waiting until after your baby is born before you begin treatment.

If you need treatment urgently, your doctors might advise having treatment while taking precautions. This includes planning your treatment to ensure that your baby is a safe distance from the area of your body being treated. In some cases, they might also use a lead apron to shield your baby from radiation.

Radiotherapy is usually a greater risk to a developing baby during the second and third trimesters of pregnancy compared to the first. Radiotherapy given during these later stages of pregnancy could increase the risk of your child developing **leukaemia** (a type of blood cancer) or solid tumours (lumps that can be cancerous or non-cancerous) during the first 10 years of their life. It could also affect their mental and physical development. Your doctors should talk to you about the possible risks before you have treatment.

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## Targeted drugs during pregnancy

As **targeted drugs** are quite new compared to some other treatments, we don't yet have much information about their possible long-term effects on developing and newborn babies. The research findings generally come from animal studies, and the findings won't necessarily be true of humans.

**Rituximab** is a targeted drug used to treat some types of lymphoma in adults. It is sometimes given from the second trimester of pregnancy onwards. One of the common side effects is that it can temporarily lower the number of B cells (a type of white blood cell that fights infection) in your blood. Newborns of mothers treated with rituximab during pregnancy might have fewer B cells at birth. However, their B cell count should reach normal levels over time without long-term effects. Your baby should not have live vaccines until their blood counts reach a level that means it is safe enough for them to do so. You will be given advice from your medical team about **vaccinations** for both you and your baby.



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Other possible risks for babies whose mothers are treated with targeted drugs while they are in the womb include:

- higher risk of delivery before 37 weeks ('pre-term delivery')
- low birthweight.

Both of these could affect the health and development of your child. Your doctors should talk to you about these risks before you have treatment for lymphoma.

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## Clinical trials during pregnancy

Women who are pregnant or breastfeeding are often not **eligible** to enter a **clinical trial**. This is out of consideration to your own health as well as your baby's health. If you are interested in participating in a clinical trial, speak to a member of your medical team. They can help you to find out if there is one that might be suitable for you.

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## Treatments to manage symptoms and side effects (supportive care)

Supportive care treatments are given to manage symptoms of lymphoma and to reduce **side effects** of lymphoma treatment.

Your medical team can advise you on which supportive care treatments are safe for you. Supportive care treatments that are considered to be safe to an unborn baby include:

- pain relief medication such as paracetamol – however, **non-steroidal anti-inflammatory drugs (NSAIDs)** are not considered to be safe to a developing foetus, and opiates should not be given too close to delivery
- anti-sickness medication (**antiemetics**), given to help **manage sickness and feeling sick (nausea)**, for example during chemotherapy
- heparin, a **blood thinning medication** to lower the risk of developing blood clots (the likelihood of which is higher during pregnancy and with cancer)
- **growth factors**, given to prevent or treat **neutropenic sepsis** or to boost the production of stem cells before or after a **stem cell transplant**.

Some, but not all, antibiotics are considered safe to take during pregnancy.

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## After treatment

During pregnancy, and for a while after, women are at a higher risk of having a **blood clot**. Having cancer further increases this risk. Your doctors will monitor you regularly for signs of a blood clot.

To reduce your risk of a blood clot, your doctors might recommend that you have daily blood thinning injections (low molecular weight heparin). The injections are completely safe to an unborn baby. In the mother, there is a slightly increased risk of bleeding. Bruising more easily is also common. Your medical team can teach you how to give yourself these injections at home. They should also give you information about who to contact if you need help or advice.

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## FAQs about lymphoma during pregnancy

Your medical team can give you advice specific to your situation. We address some common questions people have about treatment for lymphoma during pregnancy.

### Is it safe to have treatment for lymphoma during pregnancy?

Evidence suggests that, when given in line with guidelines, lymphoma treatment during pregnancy is unlikely to have a long-term, harmful effect on your baby. It is also unlikely to impact their development into childhood.

Throughout treatment, your obstetric or foetal medicine team and lymphoma team work closely together. They regularly check the health of both the mother and baby.

### What happens if I'm having assisted fertility treatment (such as IVF)?

If you are undergoing fertility treatment when you are diagnosed with lymphoma, your medical team will give advice specific to your situation. This might involve pausing your fertility treatment. The recommendations your medical team make depend on factors such as the **type** and **stage** of your lymphoma.

### Is it safe to breastfeed during treatment for lymphoma?

You might be advised not to breastfeed during, and for a while after, treatment with drug treatments (including **chemotherapy** and **targeted drugs**). This is because they can get into breast milk and are not safe for your unborn baby.

Some types of **steroid** medication are considered safe to take while breastfeeding. You might want to ask them whether it's possible to access donated breast milk for your baby.



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## Will pregnancy affect my outlook?

Pregnancy does not seem to affect the outlook of women who have lymphoma when their treatment is well-managed.

A study of 449 women with Hodgkin lymphoma found no evidence that pregnancy increases the risk of lymphoma returning (**relapse**) among women who are in **remission** (disappearance or significant shrinkage of lymphoma).

## How can I look after myself physically and emotionally while I am pregnant and have lymphoma?

Your care and treatment is likely to be coordinated by your lymphoma medical team and your **antenatal team**. You might also be referred to a specialist pregnancy care unit for further support, including emotional support.

**Coping with lymphoma** and pregnancy can be extremely challenging, both physically and emotionally.

- Follow the advice given to you by your medical team to lower the risk of harm to you or your baby.
- Speak to a health professional on your medical team before taking any medication or supplements. They can give you advice about what you can do to stay as comfortable as possible.
- Find out from your medical team what emotional support is available to you. For example, **Mummy's Star** is a charity for women who are diagnosed with cancer during their pregnancy. They have an online **support forum** for people who have cancer during pregnancy or the postnatal period.

You might also be interested in our **useful organisations** webpage. This includes organisations that offer support with **emotional wellbeing** and those that specialise in providing **support during pregnancy**.

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## References

The full list of references for this page is available on our website. Alternatively, email **publications@lymphoma-action.org.uk** or call 01296 619409 if you would like a copy.

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