

## Lymphoma during pregnancy

This information is about how lymphoma is diagnosed and treated during pregnancy. We have separate information about **fertility** after treatment for lymphoma.

### On this page

[How common is lymphoma during pregnancy?](#)

[Lymphoma diagnosis during pregnancy](#)

[Treatment during pregnancy](#)

[Frequently asked questions \(FAQs\)](#)

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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](mailto:information@lymphoma-action.org.uk).

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## How common is lymphoma during pregnancy?

A diagnosis of lymphoma during pregnancy is quite rare. In developed countries, 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 (key childbearing years), and those over 60. It's more common in pregnant women, compared with non-Hodgkin lymphoma (NHL). Around 1 in 6,000 pregnant women are diagnosed with HL.

### Non-Hodgkin lymphoma

The risk of developing **non-Hodgkin lymphoma** (NHL) increases 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.

Some people have questioned whether hormonal or **immune system** changes during pregnancy could be linked to the development of lymphoma. There is no evidence to suggest that this is the case.

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## Lymphoma diagnosis during pregnancy

Doctors consider the **symptoms** you experience and do **tests** to make a diagnosis of lymphoma.

### Symptoms

Some of the common **signs 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 can lead to shortness of breath
- **thrombocytopenia** (low level of platelets), which can increase your risk of bruising and bleeding.

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

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**Throughout my pregnancy, I had been feeling uncomfortable. I had mentioned to my midwifery team and doctors of feeling itchy and having night sweats but I was told it was hormonal and a side effect of the pregnancy.**

Leanne, affected by lymphoma during pregnancy

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## Tests

Usually, a **biopsy** is needed to confirm a diagnosis of lymphoma. This is a minor operation done while you are under local or general anaesthetic. It takes a tissue sample (cells from your body), which are examined in a laboratory to check for lymphoma cells. Neither the test nor the anaesthetic should harm your unborn child.

## Scans

After you've had 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 radiation (a type of energy). The radiation levels are generally low enough not to harm your baby; however, doctors generally avoid using radiation in pregnant women. If you are pregnant, you might have an **MRI scan** or an **ultrasound scan**, neither of which use radiation. You might also have a chest X-ray. The scan you have depends on which trimester of pregnancy you're in. Talk to your doctor if you're worried about having tests that use radiation.

### Safety after scans

If you are pregnant, you are unlikely to have scans that use radiation.

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

#### PET scans

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 about how to feed your baby during this time.

#### CT scans and X-ray scans

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.

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## Treatment during pregnancy

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

Your lymphoma treatment is carefully planned and depends on several factors, including:

- 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
- your requests.

## Chemotherapy

**Chemotherapy** (treatment with drugs to kill cancer cells) is often used to treat lymphoma. The safety of chemotherapy during pregnancy depends on the exact combination of drugs (**regimen**) you have and on how many weeks pregnant you are. If you have chemotherapy, your doctors use your current (pregnant) body surface area to calculate the dosage.

Note that chemotherapy drugs could be present in your breast milk. You should therefore avoid breastfeeding your baby during treatment. Ask your doctor for further information and advice specific to your situation.

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**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

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### First trimester (first 12 weeks)

Doctors often avoid giving chemotherapy during the first trimester of pregnancy. This is when an unborn baby (foetus) is developing major organs, and 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.

Wherever possible, doctors postpone treatment until the second trimester. **Steroids** can be very effective at delaying the need to start chemotherapy. These drugs are considered to be safe at any stage of pregnancy.

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'. At the time of writing, women in Northern Ireland must travel to England for a therapeutic abortion; as of October 2019, funding is available for this. By April 2020, it is expected that the procedure will be available locally.

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** is an organisation that offers a range of support services, including counselling centres that are free of charge. They have branches across England, Scotland and Wales, and one in Carrickfergus, 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 provides 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.

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 should take this into account when planning your treatment.

## **Radiotherapy**

**Radiotherapy** uses a type of energy called 'radiation'. It's sometimes given to treat, or to manage symptoms of lymphoma. Typically, if it is given at all, radiotherapy is given only to the neck and chest during pregnancy.

The total dose of radiation used is generally low enough not to put your baby at risk. Nonetheless, your doctors might advise waiting until after your baby is born before you begin radiotherapy. If you need treatment urgently, however, they might advise that you go ahead with the 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.

## Targeted drugs

There are lots of different types of targeted drugs used to treat lymphoma. They work in different ways to affect processes in cells.

**Targeted drugs** are quite new, which means we don't yet have much information about their possible long-term effects on newborn babies. Much of the evidence that is currently available comes from animal studies and the findings won't necessarily transfer to humans.

**Rituximab** is a targeted drug used to treat some types of lymphoma in adults. 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 (number of B cells) 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.

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

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

## After treatment

During pregnancy, and for a while after, women are at a higher risk of having a blood clot. Having lymphoma (or any type of cancer), further increases this risk.

To reduce your risk of blood clot, your doctors might recommend that you have daily blood thinning injections (low molecular weight heparin). 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. The injections are completely safe to an unborn baby. In the mother, however, there is a slightly increased risk of bleeding, for example, from the nose and gums. Bruising more easily is also common.

## Supportive care treatments

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:

- anti-sickness medication (**antiemetics**), given to help manage nausea and sickness, 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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## FAQs about lymphoma during pregnancy

We answer some common questions people have about treatment for lymphoma during pregnancy. Speak to your medical team for advice specific to your situation.

### Will treatment during pregnancy affect my child later in life?

Your medical team carefully plan your treatment with the safety of your baby in mind. The available evidence suggests that lymphoma treatment given according to guidelines during pregnancy is unlikely to have a long-term, harmful effect on your baby. It is also unlikely to impact their development into childhood.

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

Drug treatments (including chemotherapy and targeted drugs) can get into breast milk. You might, therefore, be advised not to breastfeed during, and for a while after, treatment.

Some types of **steroid** medication are considered safe to take while breastfeeding.

## Can I enter a lymphoma clinical trial during pregnancy?

Women should not be excluded from a **clinical trial** just because they are pregnant. However, consideration of both their own health, as well as that of their baby, often means that pregnant or breastfeeding women are unable to take part.

## 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** (where tests show no evidence of the lymphoma).

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

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

Usually, your lymphoma medical team and your antenatal team work together to care for you. You might also be referred to a specialist pregnancy care unit for further support.

It's important to follow the advice given to you by your medical team to avoid 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.

Your emotional wellbeing is as important as your physical health. You might find it helpful to seek support in coping with your feelings. **Mummy's star** supports women who are diagnosed with cancer during their pregnancy. They have an online **emotional support forum** for women affected by cancer during their pregnancy and shortly after the birth of their baby.



You might also consider getting further support to cope with your feelings. **Talking therapies** such as **counselling** can help you process your feelings. There are many different types of counselling, but they all aim to help you find ways of dealing with your emotions.

If you are interested in talking therapies, speak to your doctor, who might be able to offer you a referral on the NHS. You can also search for a private therapist in your area using the **British Association of Counsellors and Psychotherapists online tool**.

## References

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

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✓	Evidence-based
✓	Approved by experts
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