

# Fertility for boys, men, and people recorded as male at birth

Lymphoma Australia  
Nurse hotline: 1800 953 081  
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We recognise some people identify differently to the sex recorded at birth. For the purposes of discussing your fertility, please use the fertility fact sheet that aligns with the sex recorded for you at birth.

## Introduction

No matter your gender or age, your fertility can be affected by treatments for lymphoma. This brochure will discuss what you need to know before you start treatment, and things to consider after treatment.

## What is fertility?

Fertility is your ability to reproduce by getting someone pregnant. In order to do this, you need a functioning reproductive system which includes specific hormones and organs that allow you to make and release healthy sperm.

Many treatments for lymphoma can affect your fertility and make it harder, or impossible to get someone pregnant without medical assistance.

There are some things that can be done to try to protect your fertility. It is important that these be done **BEFORE YOU START TREATMENT**.

If there was/is no time for fertility preservation before starting treatment, there is still help available to improve your chances of having children.

Ask your doctor “Will my treatment affect my fertility?” And, “What can be done to protect it?”

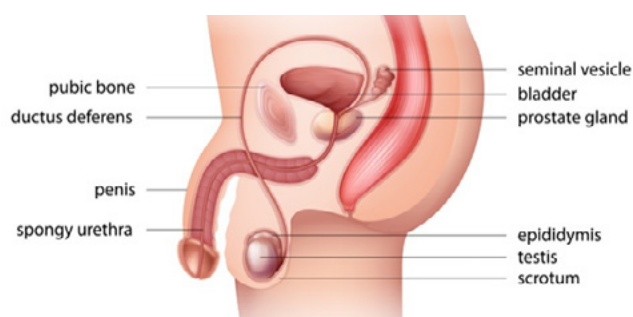
## Your reproductive system

Your reproductive system includes your:

- **Scrotum** – holds your testes (testicles, balls, nuts) and helps to keep them at a regular temperature.
- **Testes** – where your sperm is made.
- **Epididymis** – stores sperm until it is ready to be released.
- **Ductus deferens** (also called Vas deferens) – a tube that carries sperm from the epididymis to the urethra.
- **Seminal vesicles** – produce and release seminal fluid into the ductus deferens to help sperm move through the reproductive system. This fluid also helps keep sperm alive and mobile during sex, and when they enter your partners vagina (which is needed if you are having sex for reproduction).
- **Prostate gland** – acts as a valve that separates fluid from your bladder (urine, pee, wee, piss) from your ejaculate which includes your sperm and seminal fluid (cum, jizz, spunk, spooge). The prostate gland also adds more fluid to the seminal fluid and has

enzymes and proteins in it that help keep sperm healthy and lubricates your urethra.

- **Penis** – gets hard during an erection and is where your ejaculate and urine leave your body.
- **Urethra** – a muscular tube that helps move urine, and ejaculate through your penis and out of your body.



## Hormones

Hormones are chemicals we naturally produce to help our bodies develop, grow and reproduce (make babies). Our pituitary gland is a gland in our brains that releases chemicals so our body knows what hormones to make and release into our bloodstream.

### Androgens

Androgens are hormones that help our body develop. The most common androgen is called testosterone, and it is an important part of your reproductive system.

### Testosterone

Testosterone is made in your testes, and in a gland that sits just above your kidneys (your adrenal gland).

Healthy testosterone levels are needed throughout your life for healthy and strong

bones and muscles and to make blood cells. During puberty and adulthood, it is also needed to:

- develop thicker body and facial hair,
- develop and maintain a deeper voice, and strong muscles and bones
- stabilise mood, emotions and behaviour,
- regulate how and where your body stores fatty tissue,
- have and sustain an erection during foreplay, sex or masturbation,
- produce healthy sperm,
- regulate your sex drive (libido).

### Luteinising Hormone

Luteinising Hormone (LH) is produced by your pituitary gland in your brain and released into your bloodstream. It stimulates your testes and adrenal gland to make testosterone.

If your lymphoma is in your brain, or you have had other treatments that change the way your pituitary gland works, you may not produce enough LH which will result in you producing less testosterone.

### Why does treatment affect my fertility?

Different treatments can affect your fertility in different ways.

### Lymphoma in the testes

Lymphoma can develop in or spread to the testes. Some treatments aimed to destroy the lymphoma can affect the way the testes' function. In some cases, surgery may be needed to remove the lymphoma and surrounding testicular tissue.

### Chemotherapy

Chemotherapy attacks fast growing cells, so as sperm is produced, they can be affected by chemotherapy. Other cells in your reproductive tract can also be affected.

It can damage cells in your testes responsible for making sperm and testosterone. The effects of chemotherapy on your reproductive system depend on the dose, duration, type of chemotherapy and the age you are at the time of your treatment. These effects can be temporary or permanent. If the cells in your testes are damaged, the effect chemo has on your fertility could be permanent. The risk to fertility varies a lot with individual patient and treatment factors

### Monoclonal antibodies

Some monoclonal antibodies, especially immune checkpoint inhibitors such as pembrolizumab or nivolumab can affect your ability to produce hormones including luteinising hormone (LH) and testosterone.

When your hormone levels are affected, your fertility can be affected. This can be a temporary or permanent change, but does not happen to everyone. There is no way to tell if your hormones will be permanently affected by these medicines.

### Radiation therapy

Radiation to your abdomen or genital area can cause scar tissue, and affect how your adrenal glands and testes produce the hormones needed for fertility. It can also affect the blood flow to your genital area

making it harder to have and maintain an erection during sexual activity.

Radiation therapy can also cause damage to your testes, preventing them from making healthy sperm. Damage to the sperm transport system such as the epididymis, ductus deferens or urethra may prevent sperm from being released from your body.

### Surgery

If you need to have surgery to remove the lymphoma, you may have scar tissue that prevents you making or releasing sperm. In some cases, your testes may be surgically removed.

### How can I protect my fertility so I can still have children?

There are several options that may be available to you to help protect your fertility.

The right option for you will depend on several factors including:

- how old you are
- if you have reached, or gone through puberty
- the urgency of your treatment
- ability to get fertility appointments before treatment for your lymphoma.

There are both public and private services available for urgent fertility preservatons.

**Ask your doctor about them.**

### Freezing sperm, embryos or testicular tissue

The Sony foundation has a program called You Can Fertility. This service is free for people 13-30 years of age to

store, sperm, embryos (fertilised eggs) or testicular tissue to help with pregnancy later in life. Their contact details are at the end of this brochure under [Other resources](#).

Sperm may be stored if you have already reached puberty or are an adult. An embryo may be stored if you have a partner or someone who can donate eggs (ova) to be fertilised with your sperm. The embryo will then be frozen and stored to be used later.

Testicular tissue is usually stored for younger children who have not yet reached puberty. It may also be an option if you need to start treatment before your sperm can be collected and stored. It involves a procedure to remove a piece of the testicular tissue to freeze and store for later use.

### Other options to store or preserve sperm, embryos and testicular tissue

If you don't meet the criteria for Sony Foundations program, you can still store your sperm, embryos and testicular tissue. There is usually a yearly fee which will differ depending on where it is stored.

**Talk to your doctor** about options and costs involved in storing your sperm or other tissue.

**Ask your doctor what options you have to protect your fertility before you start treatment.**

### Can I get someone pregnant during treatment?

Treatments may make it harder to get someone pregnant. However, in some cases it may still happen. Getting someone pregnant while you are having treatment can increase the risk of your baby having physical deformities, and may increase the risk of miscarriage or stillbirth.

You may need to take precautions to avoid pregnancy during most treatments for lymphoma.

Talk to your doctor about when the best time to plan a pregnancy will be.

**Do not get anyone pregnant during treatment unless you have spoken to your doctor about the risks to you, your partner and your unborn baby.**

If an unexpected pregnancy happens while you are having treatment, let your partners doctor know what treatment you were having. They will then decide if they need to organise more tests to make sure the baby is healthy.

### How is fertility affected after treatment?

Depending on the type of treatment you had, your:

- body may no longer produce enough hormones needed to make healthy sperm.
- organs or blood vessels in your reproductive system may have been damaged, removed or scarred making

it difficult to have an erection or ejaculate.

### Is this effect permanent?

In some cases, the effect on your fertility may be permanent, meaning you will never be able to naturally get anyone pregnant. For some people though, fertility may recover in time, but how long this will take is different for everyone.

#### Ask your doctor:

- How will my treatment affect my fertility, and will the change be permanent or temporary?
- What can be done to protect my fertility?
- When can we plan to have a baby?

### Can I get someone pregnant after treatment if I haven't had fertility preservation?

Pregnancy can sometimes still happen naturally for some people after cancer treatments.

If you do not want to get anyone pregnant, you should take precautions to prevent pregnancy after treatment.

### How do I know if I can get someone pregnant?

For some people, fertility improves soon after treatment, and for others it may improve years after treatment. But for some, pregnancy will only be possible through other means, such as using your stored sperm, embryos, or testicular tissue.

### Tests to check your fertility

Talk to your general practitioner (GP or local doctor). They can arrange tests to check your hormone levels, and the quality of your sperm. However, results of these tests can change over time, so you may need to have more tests in the future.

Your GP can also refer you to a fertility specialist if needed. They can order more tests and offer treatment options to help you.

### Testosterone replacement therapy

If you have had treatment that results in you making less of the hormone testosterone, you may need to have testosterone replacement therapy. There are different ways to take testosterone replacement including:

- as a patch you put on your skin
- a gel you rub into your skin
- a buccal patch which you put on your upper gum in your mouth
- injection
- small implant under your skin.

Decreases in testosterone can affect you at any age, but tend to be more severe in children and young adults. If you need testosterone replacement therapy, you may need to take it for a limited time, or for the rest of your life.

### Getting pregnant

#### Natural pregnancy

A natural pregnancy is when an egg is fertilised by sperm after vaginal sex. In rarer cases, a pregnancy may occur even if you haven't had vaginal sex, if you



ejaculate near your partners vagina.

In some cases, a natural pregnancy can still occur after treatment, but this will depend on your treatment, your age, where in your body the lymphoma was, and any other underlying conditions.

You will need to be able to have an erection, and make and release healthy sperm to achieve a natural pregnancy.



Having sex

Some people can have difficulty having sex during and after treatments for lymphoma. Some things that can affect your ability to have sex include:

- a low sex drive (libido)
- difficulty having or maintaining an erection or ejaculating (releasing sperm).
- difficulty reaching an orgasm.

Talk to your doctor if you have any difficulty having sex. This side-effect is just as important as any other side-effect of cancer treatments, so they need to know.

Depending on what is causing your changes in sexual function there could be treatments or medicine that can help.

For more information on sex, sexuality and intimacy please see our website [here](#).

Other ways to get pregnant

In-vitro Fertilisation (IVF)

If you had time to collect and store sperm or testicular tissue before treatment, you may be able to achieve a pregnancy with IVF.

Donor sperm

IVF treatment may still be an option for you by using sperm donated by somebody else. This may be an option if you didn't have time to store your sperm or testicular tissue before treatment.

Who may be involved in your fertility care

Different types of specialist doctors can help with fertility. You can also ask your doctor to refer you to a fertility clinic for expert fertility care.

Fertility Counsellors

Facing fertility challenges after treatment can be emotionally and physically challenging. Specialist Fertility counselling is available through most fertility clinics and can include Psychologists, Psychotherapists and Social workers.

Specialist	What they help with
Andrologist	Treating conditions of your reproductive system. They can check your fertility and treat conditions that may cause hormone imbalances or affect your ability to have and sustain an erection.

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Specialist	What they help with
Endocrinologist	Treating conditions of your reproductive system. They can check your fertility and treat conditions that may cause hormone imbalances or affect your ability to have and sustain an erection.
Fertility Doctor	<p>A fertility doctor may be involved in your care if you and your partner need help getting pregnant through IVF using your own, or a donor's sperm.</p> <p>They can also help if you have hormone imbalances affecting your fertility, or need genetic testing.</p>

## What if pregnancy is not an option?

There are many ways to start a family, and if getting pregnant is not possible because of your cancer treatments, there are still options available.

### Adoption

Adoption is when biological parents cannot, or choose not to raise a child as their own. The child is then adopted by another couple or single person to raise as their own child. The adopted parent/s are legal parents.



### Children of any age, including babies and teenagers can be adopted.

You may be able to adopt a child born in Australia or overseas. To learn more about adoption in your state see the links below.

#### Victoria

<https://www.vic.gov.au/adopt-child-victoria>

#### New South Wales

<https://www.facs.nsw.gov.au/families/adoption/adopting-a-child/want-to-adopt>

#### Australian Capital Territory

<https://www.communityservices.act.gov.au/children-and-families/adoption-kinship-and-foster-care/adoptions/adopting-a-child-from-the-act>

#### Queensland

<https://www.qld.gov.au/community/caring-child/adoption>

#### Northern Territory

<https://nt.gov.au/community/child-protection-and-care/adoption/introduction>

#### Western Australia

<https://www.wa.gov.au/organisation/departments-of-communities/adoption>

#### South Australia

<https://www.sa.gov.au/topics/family-and-community/parenting/adoption>

#### Tasmania

<https://www.decyp.tas.gov.au/safe-children/adoptions-and-permanency/about-adoption-in-tasmania/>

### Foster care

Foster care may be an option for you. Foster care can include short- and long-term care of children who need a safe and loving home.

In some cases, foster care can lead to adoption if suitable.

### What if I don't want to get anyone pregnant.

Talk to your doctor about your fertility if you do not want a pregnancy.

You should always use barrier protection, such as condoms when you have sex (unless you are in a committed relationship with only 1 person), to avoid the risk of sexually transmitted diseases and infections. But you may also need contraceptives to avoid an unwanted pregnancy.

Ask your doctor to check your fertility to find out if you need to take extra precautions to prevent a pregnancy. There are many different choices of contraceptives, so ask your doctor to explain the choices you have for your circumstances.

### Other resources

- **Sony foundation You Can Fertility program**  
<https://www.sonyfoundation.org.au/youcanfertility>
- **Sex, sexuality and intimacy**  
<https://www.lymphoma.org.au/lymphoma/side-effects-of-treatment/sex-sexuality-and-intimacy/>

### Summary

- Lymphoma treatments can have temporary or permanent effects on your fertility.
- Treatment can affect your fertility causing hormonal changes or damage to your reproductive organs.
- If there is time, you may be able to have procedures to help increase your chances of a successful pregnancy in the future.
- Natural pregnancy can still happen for some people who have had treatments.
- If you do not want to get anyone pregnant, talk to your doctor about having fertility tests done, and how to best prevent an unwanted pregnancy.
- You may need extra help to get pregnant through IVF
- Other options to start a family include adoption and fostering.
- Talk to your doctor about your options and referrals to the above specialist.
- You are not alone; our Lymphoma Care Nurses are here to help. Call our nurses on 1800 953 081 Mon-Fri 9am-4:30pm Eastern Standard Time.



## Resources and support

**Lymphoma Australia** offers a wide range of resources and support for people living with lymphoma or CLL, and their carers. How to access our resources:

- **Visit** our website [www.lymphoma.org.au](http://www.lymphoma.org.au) for more information.
- **Phone** our Lymphoma Care Nurse Hotline on 1800 953 081.
- **Email** our Lymphoma Care Nurses [nurse@lymphoma.org.au](mailto:nurse@lymphoma.org.au)
- **Booklet:** Understanding Non-Hodgkin Lymphoma (NHL)
- **Downloadable information:** Visit our [website](http://www.lymphoma.org.au), or give us a call if you would like some more information on a variety topics related to lymphoma
- **Join** our Facebook page [Lymphoma Down Under](https://www.facebook.com/LymphomaDownUnder) (make sure you complete all the membership questions when you join).

**Cancer Council** offers a range of services, including free counselling, to support people affected by cancer, including patients, families and friends. Services may be different depending on where you live. You can contact them at [www.cancer.org.au](http://www.cancer.org.au) or by phone on 13 11 20.

**Medicare Australia:** Check with your GP if you are eligible for a Mental Health Treatment Plan (MHTP). This plan is funded by Medicare and can provide you with up to 10 sessions with a registered psychologist. More information can be found [here](#).

**WeCan** is an Australian supportive care website to help find the information, resources and support services you may need following a diagnosis of cancer. You can visit their website at [www.wecan.org.au](http://www.wecan.org.au).

**Canteen** provides support for young people aged 12-25 years who have cancer, or, who have a parent with cancer. Find out more at their website here at [www.canteen.org.au](http://www.canteen.org.au).

**Disclaimer:** Lymphoma Australia has taken every precaution to make sure the information in this document is accurate and up-to-date. However, this information is intended for educational purposes only and does not substitute for medical advice. If you have any concerns about your health or wellbeing, please contact your treating team.

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## Notes

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