ATLANTIC CANADA
ONCOFERTILITY

APPHON
ROHPPA

Cancer, Fertility, and Sexual Health

For Children & Adolescents
Assigned Male at Birth (AMAB)

Table of Contents

This handout will provide you with information about options for preserving your fertility.

Fertility is the ability to have biological children. Throughout this resource, when we say “you,” we are referring to you (parents) and/or your child.

Your medical team will speak with you about your diagnosis, treatment, and any risks to fertility. They may also refer you to a fertility specialist to talk about your options.

You and your child’s experiences and preferences regarding reproductive health are important.

A The Basics: Why do we need to talk about this?

- A cancer diagnosis can be scary and confusing. One thing you may want to think about is how cancer and cancer treatments can affect your ability to have children.
- Cancer treatments can affect how you think and feel about your body. This can affect your relationships, and sexual health.
- It is normal to feel scared or worried. Having to think about whether you might want to have children in the future may add to those worries.
- There are many things which may influence your decisions about having children, such as:
  - Gender
  - Sexual orientation
  - Culture
  - Past experiences
  - Family views
  - Cost

> My child is starting to ask me questions about their fertility and if they could ever be a parent. I don't have the information to even know what to say.
> *-Patient/Family Advisor*

B Fertility Risk

Will cancer impact my ability to have children?

Cancer and its treatments might impair how testicles and sperm work. These changes may be short-term or long-term.
Cancer treatments that may affect fertility include surgery, systemic treatment (chemotherapy, immunotherapy, and targeted therapy), and radiation treatment.

These treatments might:

- Decrease the number of sperm.
- Lower sperm production.
- Reduce the quality of sperm.

It may take longer to have children if you have received hormone-blocking treatments.

Sometimes, infertility happens for reasons that are not related to cancer.

C Fertility Preservation Options

AMAB individuals begin to produce sperm once they reach puberty and will continue to do so over their life. Sperm is contained in semen that is released during ejaculation through masturbation or sex.

Fertility preservation saves or protects your reproductive organs and sperm. This may give you an opportunity to have biological children in the future.

Fertility Preservation Options Before Puberty

Gonadal Shielding: A special shield can protect the testicles and sperm during radiation by covering the area.

Testicular Tissue Cryopreservation:
Involves removing a piece of the tissue of the testicle, freezing it, and saving it for later use. When you are ready to have children, the tissue can be re-implanted through another surgery.

C Fertility Preservation Options

continued

Fertility Preservation Options After Puberty

Gonadal Shielding: A special shield can protect the testicles and sperm during radiation by covering the area.

Sperm Banking: You will give a semen sample through masturbation which is then checked for sperm, frozen, and stored for future use. This should be done before starting cancer treatment, if possible.

Electroejaculation: If you can't ejaculate on your own, an electric probe can be used to help release semen.

Surgical Sperm Extraction: If you can't ejaculate on your own, sperm can be taken directly from the testicles and stored for future use.

Testicular Tissue Cryopreservation: This is only used when other methods are not an option, and you are at a high risk of losing fertility. It involves removing a piece of the testicle tissue, freezing it, and saving it for later use. This method is rarely used post-puberty.

D Treatments That May Affect Fertility

continued

1 Systemic Treatment

Systemic treatment is medicine that travels through your blood to find, damage, and destroy cancer cells. These treatments include chemotherapy, immunotherapy, and targeted therapy. Some medications affect the testicles and sperm more than others. This may depend on the amount or combination of medications.
Your medical team will talk with you about your treatment plan and how it might affect fertility.

2 Surgery

If you have testicular cancer, you may need surgery to remove one or both testicles. This is called an orchiectomy. If you have one testicle removed, it may not affect your fertility, but if both are removed, you will no longer be able to produce sperm. Some other types of surgery may also impact fertility - please ask your health care provider if you have questions.

3 Hormone-Blocking Treatment

Some types of cancer grow faster because of hormones in the body. Medications called hormone blockers can stop these hormones from working. This helps control the cancer and might reduce the chance of it coming back, but can also impact fertility.

D Treatments That May Affect Fertility

continued

4 Radiation Treatment

Radiation treatment uses strong x-rays to destroy cancer cells and shrink tumours. It can damage the reproductive organs, which may affect fertility. How much damage will depend on what part of the body is being treated and how much radiation is used.

Radiation to the pelvis can cause the testicles to stop producing sperm.

- To try to prevent this from happening, you may consider gonadal shielding during radiation treatment.

Radiation to the brain can sometimes affect the pituitary gland. The pituitary gland produces hormones that help testicles to produce sperm.

Total body irradiation treatment is when the whole body is given radiation. This gives you a high dose of radiation and may cause infertility. It is sometimes used before stem cell transplants.

E Sexual Health and Cancer

If you have questions about sexual health and cancer, please ask your medical team.

Resources on Sexual Health and Cancer can be found by scanning this QR code.

F Start the Conversation

When should I talk to my medical team about preserving my fertility?

Your medical team should talk to you about how treatment could affect your fertility before you start your treatment.

Sometimes, having this discussion before treatment is not possible due to the severity of illness and/or urgency to begin cancer treatment.

If they haven't talked to you about it yet, you can ask your team how your treatment might affect your fertility and what your options are for the future.

F Start the Conversation

continued

Potential questions you may ask:

- What are the risks to my fertility with my cancer diagnosis and treatment plan?
- What can I do to preserve my fertility?
- What is my risk if I delay treatment for fertility preservation?
- If I don't preserve my fertility before treatment, what are my options after treatment?
- How will I know if I am fertile after treatment?
- How long do I need to wait after my cancer treatments finish to start or continue my family?
- Can you tell me how my cancer and cancer treatment may affect my fertility plans?

G Post-Treatment

Going through cancer treatment can be challenging and bring up many different feelings. After treatment, it may take time to think about relationships, sex, or having children. It may also take time to adjust to changes in your body and in your life.

More information is available to you in a separate handout called “Fertility after Cancer Treatment”. You can ask your medical team for this handout whenever you feel ready to learn more.

Notes

This resource was made in partnership and collaboration with patient and family advisors, valuing their lived experience and expertise.

This resource was adapted from existing Cancer Care Alberta resources.

Production of this resource has been made possible through collaboration and financial support from the Canadian Partnership Against Cancer Corporation and Health Canada.
The views expressed herein do not necessarily represent the views of Health Canada or the Canadian Partnership Against Cancer.

Atlantic Canada Oncofertility is an umbrella term which refers to the Oncofertility Coordinators from NS, NL, PE, patient and family advisors from all Atlantic Provinces, and leadership from the Atlantic Provinces Pediatric Hematology Oncology Network (APPHON) as the project leads for the Oncofertility Project.

September 2025
The information in this pamphlet is to be updated every 3 years or as needed.
This is an unofficial document if printed. Please go to https://www.apphon-rohppa.com/ for all up to date information.