ATLANTIC CANADA
ONCOFERTILITY

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Cancer, Fertility, and Sexual Health

For Children & Adolescents
Assigned Female at Birth (AFAB)

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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 can 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 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 the ovaries and/or eggs 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:

- Reduce the number of eggs, which can cause early menopause
- Cause ovaries to age faster
- Reduce the quality of eggs

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

AFAB individuals are born with about two million eggs stored within two ovaries. The number of eggs in the ovaries (known as ovarian reserve) naturally decreases over time. When there are very few eggs left, menopause begins, usually around the age of 50.

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

Fertility Preservation Options Before Puberty

Oophoropexy (Ovarian Transposition): If an ovary might be affected during treatment (like radiation), it can be surgically moved to a safer part of the body to protect it. After treatment, it can be put back in its normal spot.

Gonadal Shielding and Conservative Gonadal Surgeries: A special shield can protect the ovaries and other organs during radiation treatment.

Ovarian Tissue Banking: A piece of the ovary can be removed surgically before treatment, frozen, and saved. Later, when you are ready to have children, the tissue can be reimplanted through another surgery.

C Fertility Preservation Options

continued

Fertility Preservation Options After Puberty

In people AFAB, puberty usually begins between ages 8 and 13.

Oophoropexy (Ovarian Transposition): If an ovary might be affected during treatment (like radiation), it can be surgically moved to a safer part of the body to protect it. After treatment, it can be put back in its normal spot.

Gonadal Shielding: A special shield can protect the ovaries and other organs during radiation treatment.

Ovarian Suppression: A medicine is given by injection every 1-2 months to stop the ovaries from releasing eggs while getting cancer treatment.

Embryo Banking: Eggs are removed, fertilized with sperm to make an embryo, and then frozen for later use.

Egg (Oocyte) Banking: Eggs are taken from the ovaries after using a medication for 9-14 days – the medicine makes the ovaries produce more eggs than usual. The eggs are frozen and can be used later to make embryos with sperm.

D Treatments That May Affect Fertility

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 ovaries 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 a gynecological cancer, such as cervical, endometrial, or ovarian, you may need to have surgery to remove the uterus or ovaries. This may impact your ability to have children. 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.

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:

- Damage to the eggs.
- Damage to the uterus, which could mean you may not be able to carry a baby.

To try to prevent this from happening, you may consider:

- Gonadal shielding during radiation treatment.
- Moving the ovaries – this is a minor surgery, and it moves the ovaries away from the area the radiation will affect.

Radiation to the brain can sometimes affect the pituitary gland, which helps the ovaries to release eggs.

Total body irradiation treatment is when the whole body is given radiation. This gives you a very high dose 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

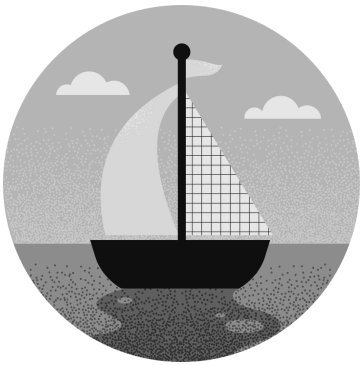
Potential questions you may ask:

- 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 before I start or continue having biological children?
- 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.

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Atlantic Canada Oncofertility is an umbrella term which refers to the oncofertility project led by Atlantic Provinces Pediatric Hematology/Oncology Network (APPHON) and supported by all Atlantic provincial health authorities/cancer agencies.

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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.

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