

Fertility Preservation for Adolescents & Young Adults Starting Cancer Treatments

Assigned Female at Birth



Cancer treatments may impact your ability to have children. This can be a deeply personal and life-changing outcome. Our goal is to provide you, and those who support you, with information about fertility preservation to help you make informed decisions about your care and your ability to have children in the future.

Here you will find details on freezing eggs, embryos and ovarian tissue; and how freezing them before treatment can increase your chances of having children in the future. We realize this information may be overwhelming, but are hopeful these details will support you to make informed decisions in the days ahead.

“ You don’t realize how important your fertility is because you are just trying to stay alive. If you stay alive, it becomes very important. ”

— thoughts from a young adult
after navigating cancer treatment

How does cancer treatment affect fertility?

Individuals assigned female at birth 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.

Cancer treatments (chemotherapy, radiation, surgery, bone marrow transplant) can sometimes cause damage and loss of eggs which can result in earlier menopause and a shorter window of being able to have children. Cancer treatments can cause damage to the uterus, cervix or vaginal structures, and/or affect hormone production, which can impact your sexual function and your ability to get pregnant and/or carry a baby. The impact depends on the type of treatments you receive and your age at the time of treatment. Your cancer care team can provide you with details on how your treatments may impact your sexual health and your ability to have children.

Freezing eggs, embryos or ovarian tissue **prior to starting treatment** is the most effective option to preserve fertility. These procedures are not possible during treatment, and after treatment, the ovarian reserve may be too low.

Here for you:

Before your first treatment, you and your cancer care team will discuss how your treatments may affect your fertility, sexual function and your ability to have children. Do not hesitate to ask questions. We are here to support you to make informed decisions about your care and your future.

What options are available to preserve fertility?

Egg Freezing (*Oocyte Cryopreservation*): Before starting any treatments, eggs are collected and frozen for later use. This option is only available to individuals who are well enough to tolerate the process and whose cancer treatments can be safely delayed. This process of egg collection requires a minimum of two weeks. It requires medication injections to stimulate egg development, and transvaginal ultrasounds to monitor egg development and collect mature eggs. Mature eggs are then frozen and, at a future date, can be fertilized in a lab with sperm from a partner or donor. The rate of successful pregnancy using frozen eggs depends on a range of factors including the age of your eggs at the time of egg freezing and the number of eggs that are frozen.

Embryo Freezing (*Embryo Cryopreservation*): The same process occurs as for egg collection and freezing (see above). With embryo freezing, once the eggs are collected, they are fertilized with sperm from a partner or a donor in a lab. The fertilized egg then forms an embryo (the first stage of development) before freezing. Similarly, the rate of successful pregnancy using frozen embryos depends on a range of factors including the quality of the embryos and the number that are frozen.

Ovarian Tissue Freezing: Instead of freezing individual eggs, segments of an ovary can be removed and frozen for later use. The process requires minor surgery to remove an ovary and isolate ovarian tissue that can produce eggs. This process does not require medication or delay the start of treatments. At a future date, after treatments are complete, a segment of ovarian tissue can be surgically re-inserted into the body and will work to produce hormones and eggs. This can result in "natural" pregnancy (without the need for medical support). Ovarian tissue collection and freezing are available at a very limited number of centres (i.e. pediatrics).

There are risks and benefits to each of these fertility preservation options, and every option may not be available to you. Your cancer care team will work with you and the fertility clinic to identify the best options for you and explore the benefits and risks.

How do I start the process to preserve fertility?

Let a member of your cancer care team know that you would like to discuss options to preserve fertility. A referral will be made to meet with a Reproductive Endocrine and Infertility (REI) specialist at a private fertility clinic in BC. Your initial meeting with the REI specialist can be in-person or virtual. At that meeting, the REI team will review your medical status, bloodwork, and anticipated treatments for cancer and will then advise on the best options available to you. They will provide information about the fertility preservation process including timing, risks and benefits, side-effects and costs.

Egg, embryo and ovarian tissue freezing can only be done at a fertility clinic that offers the full range of preservation services. Most of these clinics are in Vancouver. For all fertility preservation options, **travel to the clinic is required**. See below for clinic locations.

In BC, most fertility preservation services are not covered by our Medical Services Plan (MSP) and are only offered at private fertility clinics. There is no charge for an initial referral for assessment and discussion.

General Costs:

| Type | Cost estimate, specific cost will vary |
|--|--|
| Consultation | Covered by MSP |
| Egg or Embryo stimulation, collection & freezing | About \$10,000–13,500 |
| Hormone medications for egg stimulation | About \$9,000 |
| Annual storage fee | \$600–800 |
| Future re-implantation of embryo | \$6,000 |
| Future in vitro fertilization | \$8,500 |

What are the costs involved?

Private health insurance plans may cover some costs, and the fertility clinics may provide discounts or some services at-cost for patients undergoing fertility preservation due to cancer.



Fertile Future's Power of Hope Program

(www.fertilefuture.ca 1-877-HOPE-066) provides up to \$2,000 toward egg or embryo freezing for individuals whose household income is less than \$50,000.

Olive Fertility Centre – Main Centre
300-East Tower, 555 West 12th Avenue
Vancouver, BC V5Z 3X7
Tel: 604-559-9950

Olive Fertility Centre – Victoria
545 Superior Street, Suite 210, Victoria, BC V8V 0C5
Tel: 250-410-1664
[https://www.olivefertility.com](http://www.olivefertility.com)
Other sites are available for initial consultation
in Kelowna, Surrey and Prince George.

Pacific Centre for Reproductive Medicine (PCRM) – Main Centre
500-4601 Canada Way, Burnaby, BC V5G 4X7
Tel: 604-422-7276
[https://pacificfertility.ca](http://pacificfertility.ca)
Another site is available for initial consultation in Victoria.

**Fertility clinics
that offer full
cryopreservation
services in BC**

Options for fertility protection during cancer treatment

There may also be options to protect your ovarian function during cancer treatments. In some cases, hormone injections can temporarily suppress (turn off) your ovaries to protect them during cancer treatments. The cost of these injections is not covered by MSP. If your cancer treatments involve pelvic radiation, moving your ovaries outside of the radiation treatment area (ovarian transposition surgery) may be an option. Discuss these possibilities with your cancer care team.

It is not always possible to explore and undergo fertility preservation before the start of cancer treatments. A year after your treatment is complete, you can undergo tests to assess ovarian reserve and fertility potential. This may include bloodwork or an ultrasound of the ovaries. Talk with your cancer care team to organize testing and refer you to a fertility clinic to discuss options. There may be options to freeze eggs or embryos **after** you finish treatment to preserve for the future.

Options after cancer treatment



Need
support?

You will likely have questions and may feel overwhelmed by this information. If so, please reach out to your cancer care team or Cancer Centre. We are here to help.

BC Cancer – Abbotsford

Toll-free within BC: 1-877-547-3777

Patient and Family Counselling: 604-851-4733

BC Cancer – Kelowna

Toll-free within BC: 1-888-563-7773

Patient and Family Counselling: 250-712-3963

BC Cancer – Prince George

Toll-free within BC: 1-855-775-7300

Patient and Family Counselling: 250-645-7330

BC Cancer – Surrey

Toll-free within BC: 1-800-523-2885

Patient and Family Counselling: 604-930-4000

BC Cancer – Vancouver

Toll-free within BC: 1-800-663-3333

Patient and Family Counselling: 604-877-6000 ext. 672194

BC Cancer – Victoria

Toll-free within BC: 1-800-670-3322

Patient and Family Counselling: 250-519-5525