Fertility and Cancer

Impact of cancer on fertility

- People treated for cancer have a higher risk of infertility (not able to have children). This is caused by cancer treatments and other health factors.
- Some chemotherapy treatments can damage ovaries (organs that makes ova, or eggs) and testicles (organs that make sperm). Sometimes these treatments are so damaging, the body cannot produce eggs or sperm anymore. In this case, the person is sterile.
- Radiation can affect the ovaries and uterus (organ where a fetus, or baby, grows). The side effects depend on the amount of radiation and the person's age.
    - Direct radiation to the pelvis (area of the body that houses the ovaries, uterus, and other organs) has a high risk of ovarian failure (ovaries stop working).
    - People who have radiation to their uterus have a higher risk of miscarriage (fetus dies while in the uterus), early birth, and slower growth of babies during pregnancy.

Talk with your health care team

- All patients who are able to have children should talk to their cancer care team about fertility.
- Your cancer care team works closely with fertility specialists. They will develop a fertility preservation plan for you, if needed.

Questions you can ask:

- What effect will the cancer treatments have on my chances of getting pregnant or getting someone pregnant?
- What options do I have to help preserve my fertility? How much will they improve my chances of having a baby?
- Will fertility preservation treatments impact my health?
- Where can my partner and I find support for coping with fertility issues?
- How much do fertility preservation treatments cost? Is there financial help for these costs?

Future fertility after cancer

Focus on your cancer treatment. You should not feel pressured to have fertility treatments.

Fertility preservation options for people with ovaries:

If you want to preserve your fertility, you need to have two tests. These tests measure your fertility before and after cancer treatments:

- a blood test called anti-Mullerian hormone (AMH)
- an ultrasound of your ovaries called antral follicle count (AFC). This test counts your eggs (ovarian reserve).

Egg freezing: the most common type of fertility preservation. This involves:

- Two weeks of fertility hormone injections. The hormones make your ovaries produce lots of eggs.
- Once your body makes the eggs, a doctor will remove them from your body using an ultrasound machine. You are sedated during this procedure. The doctor will give you a medication that relaxes and calms you.
- Eggs that are frozen do not need to be fertilized with sperm.

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Embryo freezing: Embryo freezing involves freezing eggs that have been fertilized with sperm. Your chance of a successful future pregnancy depends on the number of embryos frozen.

GnRH agonist: For people on chemotherapy for breast cancer, a medication called a GnRH agonist may lower the risk of ovarian failure.

Pregnancy after cancer:

- Pregnancy does not appear to increase the risk of your cancer coming back.
- If you are thinking about getting pregnant, talk to your cancer care team. Most information we have on pregnancy after cancer comes from breast cancer survivors. Most breast cancer recurrences (cancer comes back) happen in the first two years. Do not get pregnant during this time.

Fertility preservation options for patients with testicles:

- Freezing sperm is the only recommendation. For people who cannot produce sperm through masturbation, a doctor can collect it through surgery.

To learn more

- BC Cancer Sexuality and Partner Support Pathfinder: has information about fertility as well as sexual health and partner support.
- Fertile Future: Canadian charity that provides advocacy and financial support for patients to improve access to fertility preservation services
- Canadian Partnership Against Cancer (CPAC): National vision of comprehensive care and support for adolescents and young adults (AYAs) with cancer
- Canadian Fertility and Andrology Society: Fertility Preservation Clinical Practice Guideline