Fertility Preservation for Trans People who Produce Eggs

LGBTQ Reproductive Options

Many trans people are interested in being parents and want to know their options. While many trans people may conceive on their own, this info sheet helps trans men, transmasculine, and gender non-conforming people understand their assisted reproductive options. As hormone therapy and surgery can have an impact on your fertility, it is important to think about your options early.

This info sheet is specifically about fertility for people who have ovaries, and it focuses on fertility preservation. There is another info sheet available for people who produce sperm.

More information on fertility preservation is available on our website: http://lgbtqpn.ca/fertility-preservation/

These two trans-specific info sheets are part of a series on LGBTQ reproductive options. All our info sheets are available in our library: lgbtqpn.ca/current

Trans People as Parents

Many trans people do not transition.

For those who do, many trans people have children before they transition and many trans people have children after they transition.

27% of trans people in Ontario are parents, according to the Trans Pulse study (Trans PULSE E-Bulletin, Volume 1, Issue 1, July 26, 2010). Visit transpulseproject.ca to learn more.

Impact of Testosterone on Fertility

You should not try to conceive while taking testosterone. Although it is not impossible, testosterone suppresses ovulation, which makes conceiving on testosterone unlikely. However, since it is not impossible, you should not rely on testosterone as a form of birth control. If you are having sex that could result in pregnancy, and you do not wish to become pregnant, use barrier methods such as a condom, or talk to your health care provider about whether an IUD, birth control pill or other methods are appropriate for you.

The effect of hormone therapy on egg quality and on fertility is unclear. Many people have conceived after stopping hormone therapy, or while on a break from hormones. Research is currently in progress to assess the impact of testosterone on fertility for trans people.

When should I be thinking about this?

Age is an important factor in fertility. It is better to explore your reproductive options as soon as you can. You may wish to explore your options before starting hormone therapy.

If you are taking testosterone, fertility preservation may still be possible. If you are thinking about surgery on your uterus or ovaries, this is your last chance to either preserve your fertility or conceive. Trans teens may not have many treatment options before adulthood.
Reproductive Options for People who produce eggs

If you are on hormones and are ready to conceive or preserve your fertility, you can talk to your health care provider about your options. You may wish to temporarily stop taking testosterone to conceive or preserve your fertility. Getting an AMH test – Anti-Mullerian Hormone (AMH) is a protein that is produced from immature follicles within the ovary and secreted into the bloodstream. The concentration of AMH measured in blood is a marker for the number of follicles and eggs remaining in the ovary. The AMH blood test, which is not currently covered by OHIP, can be ordered by any health care provider but is best interpreted at a fertility clinic. This test helps determine response to fertility medications which provides insight into success with assisted reproductive technologies (especially in vitro fertilization), but does not provide information about the chance of spontaneous pregnancy. You do not need to stop taking testosterone to take this test.

Especially for people who produce eggs, fertility declines a lot as we age. There are benefits to exploring your options and planning early.

**Overview**

If you want to have a child who is conceived with your eggs, you have many options. You may choose to carry the pregnancy yourself, or you may choose for a partner, co-parent or a gestational carrier (surrogate) to carry the pregnancy. This chart shows a few of the decisions you will need to make:
Fertility Preservation and Medical Transition

Fertility preservation involves storing your eggs or embryos so they can be used to have a child later.

If you are planning to take hormones or have surgery on your ovaries or uterus, you can make different fertility decisions as you transition. Chest surgery will not affect your fertility.

If you know you do not want to have a child now, but would like to preserve your fertility or carry a pregnancy later, you have a few options.

Funding from the Government of Ontario is currently available for fertility preservation if you are planning surgery. Funding is managed clinic by clinic. Ask your clinic about their funding eligibility policy if you are starting or on Testosterone as well.

Planning to start hormone therapy
- Have a consultation with your health care provider or a fertility specialist to talk about egg and embryo freezing and the impact hormones will have on your future fertility.
- Consider if you want to conceive now or pursue fertility preservation before starting hormones.
- Get a referral to a fertility clinic to start fertility preservation.

On hormone therapy
- Talk to a fertility specialist or your health care provider about your reproductive options.
- Some clinicians will advise you to stop your hormones and wait for your menstrual cycle to return before starting to conceive or starting fertility preservation.
- Some clinicians are comfortable starting an IVF cycle without waiting for a menstrual cycle.
- You may wish to minimize the amount of time off hormones. If you are planning to work with a fertility specialist, discuss the timing very carefully with them. Some people may be off hormones for medical or other reasons – this may or may not be a good time to consider fertility preservation or pregnancy.

Planning surgery
- If you decide to preserve your fertility prior to having surgery to remove your ovaries, the only option currently available is IVF to freeze eggs or embryos. Discuss the timing carefully with your fertility specialist and your surgeon.
- Funding from the Government of Ontario is currently available for fertility preservation if you are planning surgery. Ask your clinic about your funding eligibility if you are on or starting Testosterone as well.

After surgery
- If you have had surgery to remove your ovaries, but still have a uterus, you can carry a pregnancy conceived with eggs from a partner or donor, or your own previously preserved eggs or embryos.
- If you have had surgery to remove your ovaries and did not freeze eggs or embryos, you will need to consider eggs from a partner, donor or co-parent to conceive.
- If you have had surgery to remove your uterus, you will need a partner, co-parent or gestational carrier (surrogate) to carry the pregnancy.
Fertility Preservation: IVF

Fertility preservation involves storing your eggs or embryos so they can be used at a later date to have a child. There are two types of fertility preservation: 1) egg banking, and 2) embryo banking. Some patients choose to store a combination of eggs and embryos. In order to store eggs and/or embryos, fertility medications and a procedure to first retrieve eggs are required. The process of using eggs and sperm to create embryos outside of the human body is often referred to as IVF, which stands for *in vitro fertilization*.

How to Get Started

Typically you should get a referral from your health care provider to a fertility specialist with experience working with trans people for fertility preservation, including egg freezing. Some clinics do not require a referral.

If you have chosen a clinic that you want to work with, bring their referral or new client form to an appointment with your health care provider.

What to Expect

You will have an initial consultation with a doctor and perhaps other people at the fertility clinic, and you will likely fill out various forms. You will likely be offered an AMH test. If this test is not offered, you may want to ask about what tests are available or what is recommended. Ask about costs of tests, procedures, medications (if necessary) and storage up front. Other than the AMH test, all testing is covered by OHIP.

Once you have the results of your investigations, you and your fertility specialist will decide on a course of treatment and develop a schedule. If you are taking testosterone, ask your fertility specialist about when you will come off testosterone to start your IVF cycle. Some people take testosterone until they start the stimulating medications for IVF.

**IVF**

IVF involves using stimulating medications which you inject each evening for about ten days to encourage your ovaries to produce many eggs or ova. This process is always monitored through cycle monitoring.

During cycle monitoring, you will have internal ultrasounds, typically called “transvaginal ultrasounds” by health care providers, which are used to examine follicles on the ovaries where the eggs are developing. Your fertility specialist will need to count and measure your follicles every day or every few days until the eggs are ready to be retrieved. On the same day you have each ultrasound, you will also have blood drawn to measure your hormone levels. The eggs are ready to be retrieved when your hormones are at a certain level and the follicles have reached the appropriate size.

Once the eggs are ready, they are retrieved surgically. While you are under intravenous sedation, a fertility specialist will insert a needle that is attached to an ultrasound probe into your body internally – this procedure is typically called a “transvaginal procedure” by health care providers, and the eggs are removed from your ovaries. The sedation used is known as ‘minimal sedation’ so you will be awake but drowsy and comfortable.
Fertility Preservation
for Trans People who Produce Eggs

The retrieved eggs that are mature are then either frozen, or the eggs and sperm are combined to create an embryo. The embryo can then be incubated for three to five days, and then transferred into the person who will carry the pregnancy, or frozen to be transferred later.

IVF is done in fertility clinics, but not all fertility clinics do IVF or fertility preservation. Very few clinics freeze eggs. When choosing a clinic, it is very important to choose one that has experience working with trans people and extensive experience in fertility preservation.

How Eggs and Embryos are Frozen

The embryologists at your clinic will assess the quality of your eggs or embryos. Embryos and eggs are frozen using a very fast freezing process called vitrification. Embryos are frozen in straws so that each embryo can be transferred, one by one, at a later time. Eggs are frozen in batches or straws (2 mature eggs per straw) so that a few can be thawed to create embryos in the future.

The eggs and embryos are frozen, or cryopreserved, at a very low temperature, and stored in large tanks of liquid nitrogen. Each straw is labelled and carefully tracked to prevent any errors.

Frozen embryos can be stored for a very long time. Children have been born from embryos frozen for over 10 years. Egg freezing is a newer technology so there is less long-term information, but many clinicians feel confident that eggs frozen through vitrification will be viable for at least ten years.

The exact outcome of egg and embryo freezing depends on a lot of factors, including your fertility and the clinic you use, and the skill and equipment available in the lab. Your age and the number of eggs that are frozen do have an impact on the chance of future fertility. More than one IVF cycle may be required to freeze the recommended number of eggs. Ask your clinician to explain what they anticipate for you, given your fertility and their expertise.

When you are storing eggs or embryos with a clinic, you will be billed a storage fee, usually every year. Be sure to keep your clinic updated with your current contact information.
Reproductive Options for People who produce eggs

Steps in Fertility Preservation

1. **Referral**
   - Your health care provider can refer you to a fertility clinic.
   - The clinic will contact you to book an initial consultation.
   - **Next Step:** Decide which clinic you would like to be referred to.

2. **Consultation**
   - You will meet with a fertility specialist for an assessment.
   - You will create a treatment plan with your fertility specialist.

3. **Hormonal assessment**
   - If you are on hormone therapy, you will need to stop taking hormones.
   - Your clinician will do blood tests to assess your fertility.

4. **Ovarian Stimulation & Cycle Monitoring**
   - Daily injections of fertility medications to help the ovaries produce several eggs.
   - Internal ultrasounds measure the follicles on your ovaries.
   - Bloodwork to monitor your hormone levels.

5. **Surgical retrieval**
   - You will be sedated.
   - A fertility specialist will insert a needle attached to an ultrasound probe to remove the eggs from your ovaries.

6. **Fertilization and Freezing**
   - **Option #1: Egg Freezing**
     - Mature eggs are frozen without being fertilized.
   - **Option #2: Embryo Freezing**
     - Eggs are combined with sperm and the embryos are frozen.

7. **Storage**
   - Eggs can be stored for at least 5 years - maybe indefinitely.
   - Embryos can be stored at least 10 years - maybe indefinitely.

8. **When you are ready to conceive**
   - Frozen eggs are fertilized with sperm using ICSI.
   - A frozen embryo or embryos are thawed and transferred to the person who will carry the pregnancy.
   - **Next Step:** Refer to our IVF info sheet to learn more.
**When you are ready to move forward**

If you have stored your eggs or embryos in a fertility clinic, you may conceive at that same clinic, or you may want to transfer your straws to another clinic. The process is slightly different if you have frozen eggs, and not embryos.

**Making Embryos**

In order to make an embryo, your frozen eggs must be thawed, and then inseminated with sperm from a sperm donor, co-parent or partner. The eggs are then fertilized through in vitro fertilization (IVF). In IVF, sperm and eggs are mixed in a laboratory to make embryos.

Because previously frozen eggs have a hardened outer membrane (known as the zona pellucida), ICSI, pronounced ick-see, which stands for intracytoplasmic sperm injection, is required. ICSI is an advanced method of fertilization whereby a single sperm is directly injected into each egg.

A resulting embryo can then be transferred into the uterus of the person planning to carry the pregnancy.

Embryos may also be frozen. If you are not ready to start the pregnancy right away, you may choose to freeze all of the embryos. If you are ready to start the pregnancy, one embryo is transferred, and any remaining embryos are frozen.

**Transferring an Embryo**

Once your embryos are created, one embryo at a time is transferred into the uterus of the person who will carry the pregnancy. Embryo transfer is much less invasive than the rest of the IVF cycle.

To transfer an embryo, cycle monitoring and some medication may be used to find the ideal timing for the transfer. The embryo is placed in a syringe, and inserted through a catheter into the uterus of the person who will carry the pregnancy. The embryo is placed in an ideal location in the uterus for a successful implantation.

**Pros and Cons**

In making the decision to preserve your fertility or not, you will need to consider several factors, including the costs, risks and benefits.

**Cost of Fertility Preservation**

There are significant costs for fertility preservation. Some of the costs of fertility preservation for trans people are funded, but there are wait lists at fertility clinics to access this funding. Without OHIP funding, the total cost for fertility preservation is approximately $10,000-15,000.

The cost of the medications is not covered by most insurance plans. The cost for medication is $3,000-6,000 depending on how much medication you need.

The cost of storing eggs and embryos varies from clinic to clinic, but an annual fee of $200-500 is typical. Contact your fertility clinic for a complete list of costs.
Reproductive Options
for People who produce eggs

Risks of Fertility Preservation
One risk is that fertility preservation may not result in you becoming a parent. You may not be successful in conceiving at a later time, or you may not find a time in your life when you want to become a parent. It is important to remember that there are no guarantees with fertility.

Embryo freezing is an established technology. Good quality viable embryos are more likely to lead to a successful pregnancy. Egg freezing is a newer technology. Although it is promising, there have not yet been studies on long-term success rates.

There are some medical risks in egg retrieval for fertility preservation. The medications can cause ovarian hyperstimulation syndrome. It is also possible to injure organs near the ovaries during the retrieval procedure or to develop an infection following the retrieval procedure. Talk with your fertility specialist about these risks before starting fertility preservation.

Cycle monitoring, exams and surgical procedures may trigger feelings of gender dysphoria for some clients. Especially for young people, fertility preservation may not be an option because the procedures are physically invasive and may be difficult or painful.

If you delay hormone therapy or take a break from hormone therapy to preserve your fertility, you may experience more gender dysphoria, which may impact your mental health. Some people feel the fertility medications caused physical sensations and emotions that made their existing dysphoria worse.

Benefits of Fertility Preservation
Fertility preservation can provide psychological and social benefits for some people.

Many parents have children who are not genetically linked to them. However, for some prospective parents the genetic connection may be important.

If you are unsure whether you want to have children who are genetically connected to you in the future, fertility preservation leaves an option open for you.

Other Considerations
If you decide not to preserve your fertility, or are unable to freeze eggs or embryos, it does not mean you cannot be a parent. Other options include adoption, carrying a pregnancy yourself, conceiving with a partner or co-parent who will carry the pregnancy, and surrogacy.

We do not know the impact of testosterone on fertility. Your fertility decreases as you age, so preserving your fertility or pursuing your pregnancy when you are younger can have significant benefits.

Reproductive Options
For more detailed information on insemination, IVF, and surrogacy consult our other info sheets, which are all available on our website.
LGBTQpn.ca/current for the full list.
Glossary

Fertility Preservation
Freezing eggs, sperm or embryos to allow a person to conceive a pregnancy in the future.

Cryopreservation
Keeping frozen sperm, eggs or embryos at a very low temperature.

Vitrification
Flash freezing eggs or embryos at a very low temperature, very quickly.

IVF – *in vitro* fertilization
IVF requires stimulating the production of many eggs with medication, surgically retrieving eggs from a parent or egg donor, fertilizing the eggs with sperm in laboratory and then transferring the embryo to the uterus of the person who will be carrying the pregnancy.

ICSI – “ick-see” – *intracytoplasmic* sperm injection
An advanced IVF procedure to fertilize eggs by injecting a single sperm into each egg.

IUI – *Intrauterine* insemination
Semen is prepared to separate the sperm from the semen, and then the sperm is placed in a syringe. A catheter is gently inserted through the cervix into the uterus of the person who will carry the pregnancy, and the sperm is placed in the uterus to help it get closer to the egg.

Semen
Fluid that is produced when a person ejaculates, it contains sperm.

Sperm
Reproductive cells that are produced in the testicles.

Egg or Ova
Reproductive cells that are produced in the ovaries.

Ovary
Reproductive organ where ova or eggs are produced.

Cervix
The bottom of and opening to the uterus.

Oophorectomy
Surgery to remove of one or both ovaries; ovariectomy.

Hysterectomy
Surgery to remove the uterus.
Next Steps and More Information
Please visit our page on fertility preservation: lgbtqpn.ca/fertility-preservation

LGBTQ Family Planning Courses
These facilitated closed learning groups are tailored to the needs of participants. In community, we explore practical, emotional, social and legal issues surrounding LGBTQ parenthood through presentations, group discussions and exercises, guest speakers and videos.
For more information, visit lgbtqpn.ca/courses

Government of Ontario
Basic information about how IVF is funded: http://www.health.gov.on.ca/en/public/programs/ivf/

Our Library
A central access point for reliable and up-to-date information and resources on lesbian, gay, bisexual and trans parenting. Please visit lgbtqpn.ca/library

Directory
Our website has a directory which lists professionals who have expressed a commitment to providing competent and welcoming care to LGBTQ parents, gestational carriers, prospective parents, and their children. Please visit lgbtqpn.ca/directory

Hannam Fertility Centre
Provides fertility services for people who produce eggs, and is currently studying the impacts of testosterone on fertility. HannamFertility.com Call 416-595-1521 or info@hannamfertility.com

Mount Sinai Fertility
Fertility preservation and fertility services for people who produce eggs or sperm. http://mountsinaifertility.com Call (416) 586-4748