

Fertility Preservation for Trans People Who Produce Eggs



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SHERBOURNE HEALTH

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

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

When should I be thinking about this?

Age is an important factor in fertility. It is better to explore your reproductive options early, such as in your twenties. You may wish to explore your options before starting hormone therapy.

However, it's not too late if you've already been taking hormone therapy and are in your thirties, so don't hesitate to speak to your care provider about your options.

If you are thinking about surgery on your ovaries or your uterus, this is your last chance to either preserve your fertility or carry a pregnancy.

Trans People as Parents

Many trans people do not choose to access medical interventions as part of their transition (i.e. undergoing gender-affirming surgery/ies and/or following a gender-affirming hormone regimen). For those who do, some have children before accessing medical interventions and some have children after.

Of the 2,452 Trans PULSE Canada participants who responded to the question about parenthood, 15.78% reported that they are a parent. This includes people with adult children and those who are fostering, adopting, or co-parenting children (*Trans PULSE Canada, personal communication, November 8, 2022*).

Some trans people feel that having a genetic link to their child(ren) is important, while for others this is less important or not at all important.

Impact of Testosterone on Fertility

You should not try to conceive while taking testosterone as studies show that testosterone can cause abnormal fetal development. Testosterone may also suppress ovulation, which makes conceiving less likely. However, since it is not impossible to ovulate while taking testosterone, 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.

Testosterone hormone therapy has no impact on the health or quality of eggs; many trans people have conceived after stopping hormone therapy, or while on a break from hormones.

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; most family doctors will refer you to a fertility specialist for these discussions. You will need to stop taking testosterone if you plan to conceive soon. Talk to your health care provider or fertility specialist about when to stop if you want to preserve your fertility.

Getting an AMH test

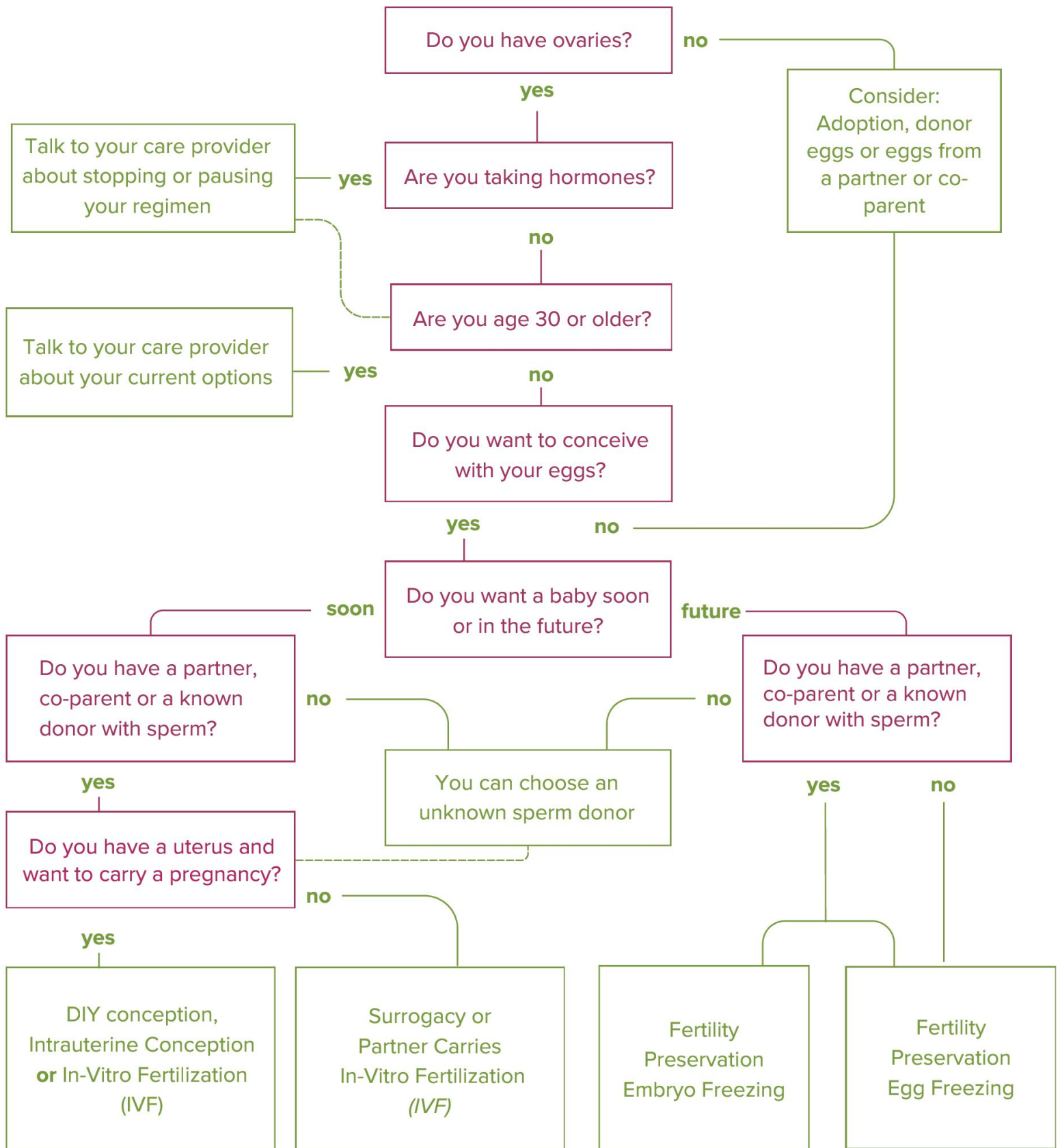
If you are considering getting pregnant or preserving your fertility your health care provider may suggest an Anti-Mullerian Hormone (AMH) test. AMH is a protein produced from immature follicles in the ovary and secreted into the bloodstream. The concentration of AMH measured in blood is a marker for the number of follicles and eggs remaining in the ovary (egg quantity) and can help determine response to fertility medications which provides insight into success with assisted reproductive technologies (especially in vitro fertilization). However, the AMH test does not provide information about the chance of spontaneous pregnancy. The AMH blood test can be ordered by any health care provider but is best interpreted at a fertility clinic, particularly if you are taking testosterone as the results may be affected by your dose.

The AMH blood test can cost between \$50-\$400. In some provinces and territories, the test is covered by a provincial/territorial health care plan or is eligible for reimbursement as part of a tax credit. Some private insurance plans may cover part or all the cost too.

Especially for people who produce eggs, fertility declines a lot with age. There are benefits to exploring your options and planning early. For most people, these options are best explored after age 20 but before age 30. You still have options though after age 30 and should still have the discussion with your care provider if you are interested in knowing more.

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. Having surgery on your ovaries or uterus will impact your options for preserving your fertility or carrying a pregnancy. Top surgery (chest masculinization 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.

Depending on the province/territory, funding for fertility preservation or tax credits may be available if you are planning surgery. You can also refer to the Rainbow Health Ontario info sheet [Assisted Human Reproduction Options and Funding Available Across Canada](#) for further details on availability of Assisted Human Reproductive technology in each province/territory as well as the funding or tax credits that are available to mitigate the costs of these procedures.

Planning to start hormone therapy

- Consider if you want to conceive now or pursue fertility preservation before starting hormones.
- Consider getting a referral to a fertility clinic to start fertility preservation if you want to preserve eggs or embryos before starting hormone therapy.

On hormone therapy

- Talk to a fertility specialist or your health care provider about your reproductive options.
- 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 gender-affirming surgery

- If you decide to preserve your fertility prior to having surgery to remove your ovaries, the only option currently available is to freeze your eggs or embryos. Discuss the timing carefully with your fertility specialist and your surgeon.
- Provincial/territorial funding or tax credits may be available to help cover or offset the cost of fertility preservations. Ask your clinic about your funding eligibility.

After gender-affirming surgery

- If you have had surgery to remove your ovaries, but still have a uterus, you may be able to 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.

Fertility Preservation: Egg or Embryo Freezing

Fertility preservation involves storing your unfertilized eggs or embryos (fertilized eggs) so they can be used later to have a child. There are two types of fertility preservation for people with eggs: 1) egg banking, and 2) embryo banking. Some patients choose to store a combination of eggs and embryos. To store eggs and/or embryos, fertility medications and a procedure to first retrieve eggs are required.

How to Get Started

Typically, you should get a referral from your health care provider (or self-refer) to a fertility specialist with experience working with trans people for fertility preservation, including egg freezing.

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

What to Expect

You will have an initial consultation with a doctor or nurse practitioner 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 as the coverage for tests, medications, fertility preservation interventions and egg/embryo storage fees differ by province/territory and between clinics.

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 fertility preservation cycle. Some people continue taking testosterone until they start the stimulating medications for fertility preservation.



Fertility Preservation

Fertility preservation 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 will be monitored through internal ultrasounds, typically called transvaginal or pelvic 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 sedated, 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” – and the eggs will be removed from your ovaries. The sedation used is known as ‘conscious sedation’, meaning you will be awake but drowsy and comfortable.

The retrieved eggs that are mature are then either frozen, or are combined with sperm – from your partner, co-parent or donor – to create an embryo. The embryo can then be incubated for three to five days then transferred into the person who will carry the pregnancy or can be frozen to be transferred later. Using eggs and sperm to create embryos outside the human body is called IVF, which stands for in vitro fertilization. IVF is done in fertility clinics, but not all fertility clinics offer IVF or fertility preservation. When choosing a clinic, it is very important to choose one that has experience working with trans people and extensive experience in fertility preservation.

Not all eggs will be mature, not all will fertilize and not all will become mature embryos (blastocysts) which can be frozen or transferred. Blastocysts can be tested for chromosomal abnormalities (pre-implantation genetic screening or PGS) which can be helpful to maximize the chances of a healthy ongoing pregnancy.



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 and stored in large tanks of liquid nitrogen (called “cryopreservation”). Each egg or embryo is labelled and carefully tracked. Frozen embryos can be stored for a very long time. Children have been born from embryos that were frozen for over twenty 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 age, your natural fertility, and the skill and equipment available in the lab and clinic you choose. Your age and the number of frozen eggs impact the chance of future fertility. More than one fertility preservation cycle may be required to freeze the recommended number of eggs. Ask your clinician to explain what they anticipate for you, given your age and test results.

When storing eggs or embryos with a clinic, you will be billed for the fertility preservation procedure and a storage fee for your eggs and/or embryos, usually every year. Be sure to keep your clinic updated with your current contact information.



Steps in Fertility Preservation



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 from Eggs

To make an embryo, your frozen eggs must be thawed then fertilized with sperm from your co-parent, partner, or donor through in vitro fertilization (IVF) in a laboratory. Not all eggs survive the thaw, not all eggs fertilize, not all those that fertilize become a mature embryo and not all embryos are euploid (chromosomally balanced). Success depends on your age when your eggs were frozen as well as the number of eggs that were frozen. Fertility clinics can better give personalized prognosis and chances of success but there are no guarantees.

Who will carry the pregnancy?

Once an embryo is made, the pregnancy can be carried by you, a partner, a co-parent, or a gestational carrier.

Because previously frozen eggs have a hardened outer membrane, a process called intracytoplasmic sperm injection (ICSI) is required. ICSI is an advanced method of fertilization whereby a single sperm is directly injected into each egg. This does not guarantee success but can improve the chances of fertilization.

A resulting embryo can be tested with pre-implantation genetic screening (PGS). This tests the chromosomal make-up of the embryo. Euploid (chromosomally balanced) embryos can then be transferred into the uterus of the person planning to carry the pregnancy. If you are not ready to start the pregnancy right away, you can choose to freeze 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, 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 to optimize the chances of 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. Depending on the province/territory you live in, some of the costs of fertility preservation may be funded or reimbursable, but there are often wait lists at eligible fertility clinics to access available funding. Without provincial/territorial funding or tax credits, the total cost for fertility preservation is approximately \$10,000-15,000, plus medications.

The cost of the medications required for fertility preservation may be eligible for funding or tax credits depending on the province or territory you live in. Some private insurance plans may cover part or all these costs too. The cost for medication is \$3,000-9,000 depending on how much medication you need.

The cost of storing eggs and embryos varies from clinic to clinic, but an annual fee of \$300-900 is typical. Contact your fertility clinic for a complete list of costs.

Depending on the province/territory you live in, some of the costs of the embryo transfer procedure may be funded or reimbursable, but there are often wait lists at eligible fertility clinics to access available funding. Without provincial/territorial funding or tax credits, the total cost for a single round of embryo transfer treatment is approximately \$1,000-2,500, plus medications.



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.

There are some medical risks in egg retrieval for fertility preservation. The medications can cause ovarian hyperstimulation syndrome and it is possible that organs near the ovaries may be injured during the retrieval procedure or may develop an infection following the retrieval procedure. Talk with your fertility specialist about these risks before starting fertility preservation. Monitoring, physical exams and surgical procedures may trigger feelings of gender dysphoria for some clients. Fertility preservation may not be an option for some individuals 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 that fertility medications cause physical sensations and emotions that make 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.

Your fertility decreases as you age, so preserving your fertility or pursuing your pregnancy when you are younger can have significant benefits.



Glossary

Cervix

The bottom of and opening to the uterus.

Cryopreservation

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

Egg or Ova

Reproductive cells that are produced in the ovaries.

Embryo

A fertilized egg that has the potential to mature into a baby.

Euploid Embryo

An embryo which is chromosomally balanced (has an even number of matched chromosome pairs); these embryos have a high probability of becoming healthy pregnancies.

Fertility Preservation

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

Hysterectomy

Surgery to remove the uterus.

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.

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.

Oophorectomy

Surgery to remove one or both ovaries; ovariectomy.

Ovary

Reproductive organ where ova or eggs are produced.

Semen

Fluid that is produced when a person ejaculates; contains sperm.

Sperm

Reproductive cells that are produced in the testicles.

Vitrification

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

Next Steps and More Information

Fertility care hub, includes peer support groups, fertility clinics, and independent fertility specialists fertilitymatters.ca [Canada-wide]

Mino Care is an integrated community of culturally safe health care services and providers, with a commitment to making your pregnancy safe and stress free and focuses on Black parents. At the time of publication, they were planning a health care provider directory. Visit [Minocare.ca](https://minocare.ca) for more information.

Rainbow Health Ontario: 2SLGBTQ-Friendly Provider Database Designed to help you find health and social service providers who have expressed a commitment to providing competent and welcoming care to 2SLGBTQ people in Ontario rainbowhealthontario.ca/lgbt2sq-health/service-provider-directory [ON only]

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