



# Infertility

• **1 in 6** Canadians experience infertility.<sup>1</sup>

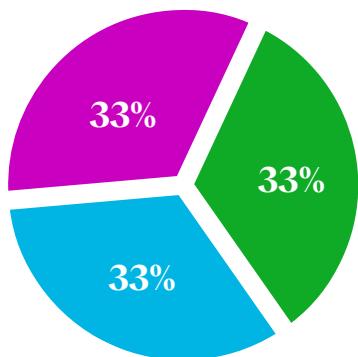
• On average, it takes **5 to 6 months** for a couple to become pregnant.<sup>2</sup>

• Globally, **48.5 million** couples experience infertility.<sup>3</sup>

## Causes of Infertility

Infertility affects men and people assigned male at birth (AMAB) and women and people assigned female (AFAB) at birth equally.

- 33% involves a partner with female reproductive organs.
- 33% involves a partner with male reproductive organs.
- 33% involves both partners or is unexplained.



## What is Infertility?

Family planning is a very important life stage for many individuals; however, people often take their fertility for granted until they are ready to have a baby.

Everyone's fertility journey is different - heterosexual couples, same-sex partners, older persons, individuals who are not in sexual relationships and those with certain medical conditions, such as cancer survivors - may all pursue different fertility paths on the road to starting their family.

According to the WHO, infertility is defined as an inability to conceive within 1 year of unprotected sex or 6 months in women over 35.<sup>3</sup>

Despite infertility being a very common issue affecting millions of people world-wide, it still carries a significant amount of shame and stigma, especially for women.

Fertility and family planning journeys can be very emotionally and physically demanding. Education and fertility specialists can be inaccessible, and many fertility treatments are often paid for out-of-pocket. This means individuals who are struggling with infertility may also feel the additional burden of economic barriers to care.

Breaking the stigma of infertility starts with education – it's important to know that you are not alone and there is hope for a successful pregnancy. Before outlining what causes infertility in women, it's important to understand the biological steps required to successfully become pregnant:

- 1 Reproductive hormones released by the brain control ovarian function.
- 2 A mature egg is released from the left or right ovary, this process is known as ovulation.
- 3 The egg travels from the ovary into the uterine (fallopian) tube.
- 4 A sperm swims through the vagina into the uterus and enters the correct uterine tube.
- 5 The sperm fertilizes the egg to create an embryo that moves into the uterus and implants into the uterine wall.

## Risk Factors

There are many factors that impact fertility beyond the health conditions listed below. Lifestyle plays a very important role – optimizing your health before trying to conceive can increase your chances of getting pregnant. Below are a number of lifestyle factors that can impact your ability to conceive.

- Age
- Smoking
- Being over or underweight
- Excess alcohol consumption
- Stress

There is a common misconception that birth control pills can increase your risk of infertility if taken for a prolonged period of time. Current research suggests there is no link between former birth control use and fertility issues.



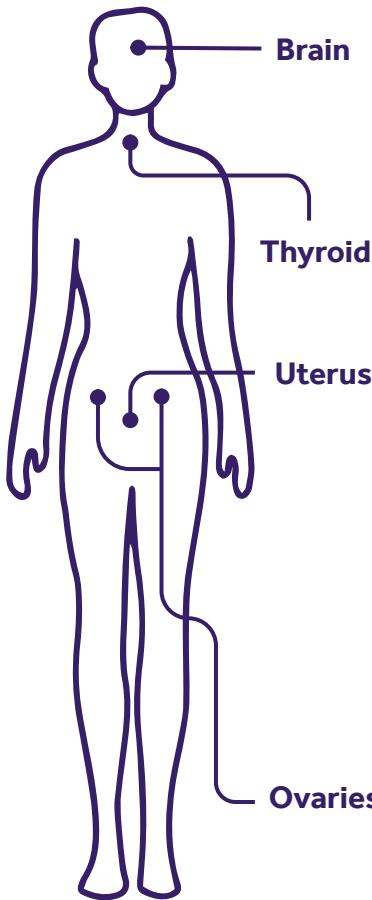
Women under 35 have a 25% chance of pregnancy every menstrual cycle.<sup>4</sup>



Women over 40 have a 5-10% chance of pregnancy every menstrual cycle.<sup>4</sup>

## Infertility in Women

There are certain general medical conditions that are known to impact fertility in women, such as autoimmune disorders, genetic conditions, and previous chemotherapy/radiotherapy. Other conditions listed below are more specific to the female reproductive system:



- Hypothalamic dysfunction - the part of the brain responsible for releasing reproductive hormones necessary for ovulation is disrupted.
- Too much prolactin - certain medical conditions cause the brain to release too much of a hormone called prolactin which can also affect fertility.
- Under or overactive thyroid - the thyroid gland releases too much or too little hormones that can impact fertility.
- Fibroids - non-cancerous growths that develop in or around the womb. Depending on their location, these growths can block the uterine tubes or affect implantation.
- Cervical stenosis - narrowing or 'stenosis' of the cervix which forms the opening of the womb into the vaginal canal. If this opening is too narrow, it can make it harder for sperm to reach the egg for fertilization.
- Endometriosis - common condition that impacts fertility (see endometriosis fact sheet for more information)
- Damaged uterine tubes - previous pelvic surgery or pelvic inflammatory disease secondary to sexually transmitted infection can damage the uterine tubes and make it harder for sperm to reach the egg for fertilization.
- Poly cystic Ovarian Syndrome (PCOS) - common condition that impacts regular ovulation (see PCOS fact sheet for more information)
- Primary ovarian insufficiency (premature menopause) - ovarian reserve declines impacting regular ovulation (see menopause fact sheet for more information)

## Diagnosis

Diagnosis of infertility in women is made using a variety of tests to investigate some of the most common causes as listed on the previous page

### **Pelvic Exam:**

to check for structural problems or signs of disease.

### **Blood tests:**

to check thyroid and reproductive hormone levels.

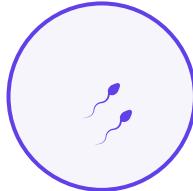
### **Transvaginal ultrasound:**

ultrasound to visualize the uterus and ovaries to check for structural problems.

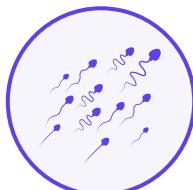
### **Hysterosalpingogram (HSG):**

special x-ray to visualize uterus after placing an iodine-based dye through the cervix to check for blockages in the uterine tubes.

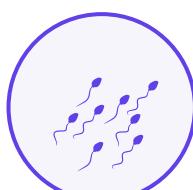
Diagnosis of infertility in men includes blood tests to check hormone levels and semen analysis to check for:



Low sperm count



Abnormally shaped sperm



Low motility of sperm

## Treatment

### Treatment option

Intrauterine insemination (IUI) involves directly inserting sperm into a woman's uterus (womb).

Ovulation stimulation involves medications to help induce ovulation such as clomifene or letrozole.

In vitro fertilization (IVF) is a complex series of procedures where a mature egg is collected from the ovaries and fertilized by sperm in a lab. Then one or more fertilized eggs (embryos) are placed in the uterus.

IntraCytoplasmic Sperm Injection (ICSI) is a procedure that takes sperm and puts it directly into the egg.

Surrogacy allows someone else to carry the embryo for a couple.

Egg or sperm donation

### Who is it best for?

- People with unexplained infertility
- Mild-moderate infertility in male partner
- Couples without a male partner using donor sperm

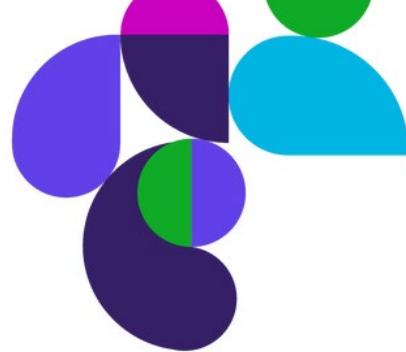
- Women with ovulation issues ie: PCOS

- Women with uterine tube abnormalities
- Men with severely low sperm count
- People who have been unsuccessful in other fertility methods

- Severe infertility in male partner
- People at high risk of genetic disorders

- Same-sex partners
- Women without a uterus

- Women with low ovarian reserve
- Severe infertility in male partner



## When should you see a doctor?

If you are not experiencing a regular menstrual cycle with periods that are 21-35 days apart.

If you are under 35 and are still trying to conceive after 1 year of unprotected sex.

If you are over 35 and are still trying to conceive after 6 months of unprotected sex.

If you are over 40 and planning future pregnancy.

**1 in 5 couples diagnosed with infertility will go on to conceive without any treatment at all.<sup>2</sup>**

## How can Teladoc Health help?

"I'm looking for a fertility specialist." ..... **Find a Doctor**

"I'm looking for additional resources on fertility options and community support." ..... **Personal Health Navigator**

"I'm looking for a second opinion on my infertility diagnosis and treatment plan." ..... **Expert Medical Opinion**

"My fertility journey has taken an emotional toll; I'm looking for mental health support." ..... **Mental Health Navigator**

This guide is not meant to provide medical advice or service and should not be construed as the professional advice of Teladoc Health. As such, Teladoc Health does not guarantee or assume responsibility for the correctness of the information or its applicability regarding any specific factual situation. Personal health problems should be brought to the attention of physicians and appropriate health care professionals.

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1 "Fertility 101: Fertility Fundamentals." Fertility Matters Canada, Fertility Matters Canada, [www.fertilitymatters.ca/learn/fertility101/](http://www.fertilitymatters.ca/learn/fertility101/). Accessed 5 Jan. 2024.

2 "Fertility Treatments: Learn about the Latest Advances in Fertility Treatment to Help You Build Your Family." Flo.Health - #1 Mobile Product for Women's Health, Flo health, [flo.health/getting-pregnant/trouble-conceiving/fertility-treatments](http://flo.health/getting-pregnant/trouble-conceiving/fertility-treatments). Accessed 5 Jan. 2024.

3 World Health Organization. "WHO fact sheet on infertility." Global Reproductive Health, vol. 6, no. 1, 2021, <https://doi.org/10.1097/GRH.0000000000000052>.

4 "Having a Baby after Age 35: How Aging Affects Fertility and Pregnancy." ACOG, American college of Obstetricians and Gynecologists, [www.acog.org/womens-health/faqs/having-a-baby-after-age-35-how-aging-affects-fertility-and-pregnancy](http://www.acog.org/womens-health/faqs/having-a-baby-after-age-35-how-aging-affects-fertility-and-pregnancy). Accessed 5 Jan. 2024.

5 "Infertility: Causes & Treatment." Cleveland Clinic, Cleveland Clinic, [my.clevelandclinic.org/health/diseases/16083-infertility](http://my.clevelandclinic.org/health/diseases/16083-infertility). Accessed 5 Jan. 2024.

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