CONDITION

Infertility

Infertility is difficulty achieving pregnancy after regular unprotected sex for a defined period.

WHAT IT IS
Difficulty achieving pregnancy after regular unprotected sex

BODY SYSTEM
Reproductive system

MAIN SYMPTOMS
No pregnancy after trying, irregular periods, sexual difficulties

WHAT CAUSES IT
Ovulation, sperm, tubal, uterine, age-related, or unexplained factors

HOW IT IS DIAGNOSED
Semen analysis, ovulation assessment, and uterine and tubal testing

MAIN TREATMENT
Cause-directed care and assisted reproductive treatments

CAN IT BE CURED?
Sometimes - treatment can restore or bypass fertility

IS IT AN EMERGENCY?
Sometimes - severe symptoms during fertility treatment need urgent care

LONG-TERM OUTLOOK
Many conceive with help; some do not

Overview

Infertility is difficulty becoming pregnant. It can involve the reproductive health of either partner, both partners, or factors that remain unexplained after testing.

It is commonly defined as not achieving pregnancy after 12 months of regular sex without contraception. An assessment may be appropriate after six months when the partner who would carry the pregnancy is aged 35 or older. Testing may begin sooner when someone is over 40 or has a known fertility concern.

Infertility does not mean pregnancy is impossible. Some people conceive without treatment after taking longer than expected. Others become pregnant after treatment, including assisted reproductive technology such as in vitro fertilisation, or IVF. However, no treatment can guarantee a pregnancy or live birth.

Fertility is affected by age, egg release, sperm health, the fallopian tubes, the uterus, sexual function, and general health. Because several factors must work together, assessment usually involves both partners when applicable.

Infertility can have a major emotional, relationship, practical, and financial impact. These effects are real, even when tests do not find a clear medical cause.

Symptoms

The main sign is not becoming pregnant after a period of regular unprotected sex. Infertility often causes no other symptoms.

Other signs may point to an underlying cause. These can include:

These symptoms do not prove that someone is infertile. People with regular periods and no other symptoms may still have fertility problems, while people with irregular periods may still become pregnant.

Miscarriage is not the same as infertility because pregnancy has occurred. Repeated pregnancy loss needs its own medical assessment, although some tests may overlap with an infertility evaluation.

- Periods that are absent, very irregular, unusually painful, or very heavy
- Pelvic pain or pain during sex
- Difficulty getting or maintaining an erection
- Problems with ejaculation or reduced sexual desire
- Changes in body hair, acne, breast discharge, or other possible hormone-related changes
- A previous testicular injury, swelling, surgery, or failure of a testicle to descend in childhood

Causes and risk factors

Pregnancy requires several steps. An egg must develop and be released from an ovary. Sperm must reach and fertilise it. The fertilised egg must travel through a fallopian tube and attach inside the uterus.

A problem at any stage can reduce the chance of pregnancy.

Factors involving ovulation and the reproductive tract include:

Factors involving sperm include:

Age has an important effect on fertility, especially through changes in egg number and quality. Sperm quality may also change with age, although the pattern is less predictable.

Smoking, heavy alcohol use, anabolic steroids, non-prescribed testosterone, and some environmental or workplace exposures may reduce fertility. Very low or high body weight can affect ovulation and sperm health. Some medicines and medical treatments, including chemotherapy and pelvic radiation, can also affect fertility.

Sometimes both partners have contributing factors. In other cases, standard testing finds no explanation. This is called unexplained infertility. It does not mean that the problem is imagined; current tests cannot measure every step involved in conception.

- Irregular or absent ovulation, sometimes related to polycystic ovary syndrome
- Lower egg number or quality, particularly with increasing age
- Blocked or damaged fallopian tubes, including damage after pelvic infection
- Endometriosis, in which tissue similar to the uterine lining grows elsewhere
- Fibroids, polyps, scarring, or differences in the shape of the uterus
- Early loss of ovarian function
- Hormone conditions involving the thyroid, pituitary gland, or other organs
- A low sperm count
- Reduced sperm movement or abnormal sperm shape
- Problems making or releasing sperm
- Blockage of the tubes that carry sperm
- Hormone or genetic conditions
- Testicular injury, infection, cancer treatment, or previous surgery

Diagnosis

An infertility evaluation begins with a discussion of how long you have been trying, how often you have sex, previous pregnancies, menstrual patterns, sexual function, health conditions, operations, infections, medicines, and family history.

When two partners are involved, assessment usually considers both at the same time.

Testing may include:

Some people need a procedure to look inside the uterus. Keyhole surgery of the abdomen is not routinely needed for everyone, but it may be considered when symptoms suggest

endometriosis or another pelvic condition.

Home fertility tests cannot provide a complete diagnosis. They may measure one part of fertility, such as the hormone rise before ovulation, but they cannot assess the entire reproductive process.

- Semen analysis: A laboratory measures sperm number, movement, shape, and semen volume. An unexpected result may need to be repeated because sperm measurements can change.
- Ovulation assessment: Period history, urine tests, blood tests, or ultrasound may help show whether an egg is being released.
- Ovarian reserve testing: Blood tests and ultrasound can estimate the remaining egg supply. These results help plan treatment but cannot say with certainty whether someone will conceive naturally.
- Ultrasound: This can examine the ovaries and uterus for fibroids, cysts, or other structural concerns.
- Tubal testing: An X-ray or ultrasound procedure using fluid or dye can check whether the fallopian tubes appear open.
- Hormone or genetic testing: These are used when the medical history or initial results suggest a specific problem.

Treatment and management

Treatment is based on the cause, age, how long pregnancy has been attempted, previous pregnancies, test results, and personal preferences. Cost and access may also affect the available choices.

For some people, treatment begins with guidance about the fertile window and how often to have sex. A period of continued trying may be reasonable when testing is reassuring, but this should take age and other factors into account.

Medical options include:

Not every abnormality needs surgery, and correcting a problem does not always restore fertility. A fertility specialist can explain the expected benefits, limitations, costs, and risks of each approach.

Treatment can be physically and emotionally demanding. Counselling, peer support, and planned breaks may help. Choosing adoption, continuing without children, or stopping fertility treatment are also valid decisions.

- Medicines that encourage or regulate ovulation
- Treatment of thyroid, hormone, infection, or sexual-function problems
- Surgery for selected blockages, fibroids, endometriosis, or sperm-delivery problems
- Intrauterine insemination, which places prepared sperm inside the uterus
- IVF, in which eggs are collected and fertilised in a laboratory before an embryo is placed in the uterus
- Intracytoplasmic sperm injection, in which one sperm is injected into an egg during IVF
- Donor eggs, sperm, or embryos
- A gestational carrier, where legally available and medically appropriate

Complications

Infertility itself does not usually cause a medical emergency. Its effects can include grief, anxiety, low mood, stress around sex, relationship strain, and financial pressure.

Some underlying causes, such as endometriosis or hormone disorders, may affect health beyond fertility and may need ongoing care.

Fertility treatments can cause complications. Ovulation medicines may increase the chance of twins or higher-order multiple pregnancies. Multiple pregnancy raises the risk of premature birth and complications for the pregnant person and babies.

A less common complication is ovarian hyperstimulation syndrome. This happens when the ovaries respond too strongly to fertility medicines. Symptoms can include increasing abdominal pain or swelling, vomiting, reduced urination, or breathing difficulty.

Pregnancy after infertility treatment can still involve miscarriage or ectopic pregnancy, where a pregnancy develops outside the uterus. Clinics normally arrange early follow-up to confirm the pregnancy's location and development.

Prevention

Infertility cannot always be prevented. Age-related changes, inherited conditions, congenital differences, and many unexplained causes are not under your control.

Some steps may protect reproductive health:

These steps cannot guarantee fertility.

If you are due to receive chemotherapy, radiation, or another treatment that may affect eggs or sperm, ask about fertility preservation before treatment starts when time allows. Options may include freezing sperm, eggs, embryos, or reproductive tissue.

- Avoid smoking and non-prescribed anabolic steroids or testosterone
- Use condoms to reduce sexually transmitted infection risk
- Seek testing and treatment when an infection is possible
- Limit heavy alcohol use
- Aim for sustainable nutrition, activity, and weight habits
- Follow workplace safety measures around radiation, chemicals, and toxins

Living with it and what to expect

Infertility often unfolds over months or years. The process may include repeated tests, treatment cycles, waiting periods, pregnancy tests, and changes in plans. Results from one cycle do not always predict the next.

Some causes remain stable, while others change with time. Age-related egg changes continue, and certain conditions may progress. Sperm results can improve or worsen depending on health, exposures, and treatment, but changes may take months to appear.

Many people eventually have a child through unassisted conception, fertility treatment, donor conception, or a gestational carrier. Others build families through adoption. Some do not have children, whether by choice or because treatment does not succeed.

There is no single correct way to cope. It may help to decide in advance how much treatment, time, expense, and uncertainty you are willing to accept. These limits can change.

Routine follow-up is used to review results, discuss the next step, and monitor treatment. Tell your healthcare team if the process is affecting sleep, work, relationships, sex, or mental health. Support is appropriate even when you continue treatment.

When to get medical help

Arrange a routine fertility assessment if pregnancy has not occurred after 12 months of regular unprotected sex. Consider seeking help after six months if the partner who would carry the pregnancy is 35 or older.

Seek earlier assessment if either partner has a known concern, such as absent periods,

previous pelvic infection, endometriosis, testicular problems, sexual difficulties, cancer treatment, or a history of surgery involving reproductive organs.

Contact your fertility clinic promptly if treatment causes worsening pain, marked abdominal swelling, persistent vomiting, or much less urination than usual.

Seek urgent or emergency care for:

These symptoms may signal a treatment complication, internal bleeding, or ectopic pregnancy. They are not routine features of infertility.

- Severe abdominal or pelvic pain
- Shortness of breath or chest pain
- Fainting, confusion, or severe weakness
- Heavy vaginal bleeding
- A positive pregnancy test with one-sided pain, shoulder-tip pain, or faintness

Common questions

How long should we try before getting tested?

Testing is commonly offered after 12 months of regular unprotected sex. Assessment may start after six months when the partner who would carry the pregnancy is 35 or older, and sooner after age 40 or when there is a known concern.

Does infertility mean I can never get pregnant?

No. Infertility means pregnancy has not occurred within the expected time, not that it is impossible. Some people conceive without treatment, some need medical help, and some do not achieve pregnancy despite treatment.

Can you have regular periods and still be infertile?

Yes. Regular periods often suggest that ovulation is happening, but they do not confirm that the fallopian tubes are open, sperm are healthy, fertilisation occurs, or an embryo can implant.

Is infertility usually caused by the woman?

No. Fertility problems can involve sperm, ovulation or reproductive organs, both partners, or no identifiable cause. When applicable, both partners should be included in the assessment.

Does IVF always work?

No. IVF can improve the chance of pregnancy for some causes of infertility, but it cannot guarantee pregnancy or live birth. Success is strongly influenced by age, egg and sperm

factors, embryo health, diagnosis, and treatment history.

Can stress cause infertility?

Stress can affect wellbeing, sexual desire, and how often people have sex. Severe stress may also affect periods in some people. However, infertility should not automatically be blamed on stress, and struggling to conceive is not your fault.

Sources

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