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1-800-994-9662

TDD: 888-220-5446

# Infertility

**Q: What is infertility?**

**A:** Most experts define infertility as not being able to get pregnant after at least one year of trying. Women who are able to get pregnant but then have repeat miscarriages are also said to be infertile.

Pregnancy is the result of a complex chain of events. In order to get pregnant:

- A woman must release an egg from one of her ovaries (ovulation).
- The egg must go through a fallopian tube toward the uterus (womb).
- A man's sperm must join with (fertilize) the egg along the way.
- The fertilized egg must attach to the inside of the uterus (implantation).

Infertility can result from problems that interfere with any of these steps.

**Q: Is infertility a common problem?**

**A:** About 12 percent of women (7.3 million) in the United States aged 15-44 had difficulty getting pregnant or carrying a baby to term in 2002, according to the National Center for Health Statistics of the Centers for Disease Control and Prevention.

**Q: Is infertility just a woman's problem?**

**A:** No, infertility is not always a woman's problem. In only about one-third of cases is infertility due to the woman

(female factors). In another one third of cases, infertility is due to the man (male factors). The remaining cases are caused by a mixture of male and female factors or by unknown factors.

**Q: What causes infertility in men?**

**A:** Infertility in men is most often caused by:

- problems making sperm—producing too few sperm or none at all
- problems with the sperm's ability to reach the egg and fertilize it—abnormal sperm shape or structure prevent it from moving correctly

Sometimes a man is born with the problems that affect his sperm. Other times problems start later in life due to illness or injury. For example, cystic fibrosis often causes infertility in men.

**Q: What increases a man's risk of infertility?**

**A:** The number and quality of a man's sperm can be affected by his overall health and lifestyle. Some things that may reduce sperm number and/or quality include:

- alcohol
- drugs
- environmental toxins, including pesticides and lead
- smoking cigarettes
- health problems
- medicines
- radiation treatment and chemotherapy for cancer
- age



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**Q: What causes infertility in women?**

**A:** Problems with ovulation account for most cases of infertility in women. Without ovulation, there are no eggs to be fertilized. Some signs that a woman is not ovulating normally include irregular or absent menstrual periods.

Less common causes of fertility problems in women include:

- blocked fallopian tubes due to pelvic inflammatory disease, endometriosis, or surgery for an ectopic pregnancy
- physical problems with the uterus
- uterine fibroids

**Q: What things increase a woman's risk of infertility?**

**A:** Many things can affect a woman's ability to have a baby. These include:

- age
- stress
- poor diet
- athletic training
- being overweight or underweight
- tobacco smoking
- alcohol
- sexually transmitted diseases (STDs)
- health problems that cause hormonal changes

**Q: How does age affect a woman's ability to have children?**

**A:** More and more women are waiting until their 30s and 40s to have children. Actually, about 20 percent of women in the United States now have their first

child after age 35. So age is an increasingly common cause of fertility problems. About one third of couples in which the woman is over 35 have fertility problems.

Aging decreases a woman's chances of having a baby in the following ways:

- The ability of a woman's ovaries to release eggs ready for fertilization declines with age.
- The health of a woman's eggs declines with age.
- As a woman ages she is more likely to have health problems that can interfere with fertility.
- As a woman ages, her risk of having a miscarriage increases.

**Q: How long should women try to get pregnant before calling their doctors?"**

**A:** Most healthy women under the age of 30 shouldn't worry about infertility unless they've been trying to get pregnant for at least a year. At this point, women should talk to their doctors about a fertility evaluation. Men should also talk to their doctors if this much time has passed.

In some cases, women should talk to their doctors sooner. Women in their 30s who've been trying to get pregnant for six months should speak to their doctors as soon as possible. A woman's chances of having a baby decrease rapidly every year after the age of 30. So getting a complete and timely fertility evaluation is especially important.

Some health issues also increase the risk of fertility problems. So women with



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the following issues should speak to their doctors as soon as possible:

- irregular periods or no menstrual periods
- very painful periods
- endometriosis
- pelvic inflammatory disease
- more than one miscarriage

No matter how old you are, it's always a good idea to talk to a doctor **before** you start trying to get pregnant.

Doctors can help you prepare your body for a healthy baby. They can also answer questions on fertility and give tips on conceiving.

**Q: How will doctors find out if a woman and her partner have fertility problems?**

**A:** Sometimes doctors can find the cause of a couple's infertility by doing a complete fertility evaluation. This process usually begins with physical exams and health and sexual histories. If there are no obvious problems, like poorly timed intercourse or absence of ovulation, tests will be needed.

Finding the cause of infertility is often a long, complex and emotional process. It can take months for you and your doctor to complete all the needed exams and tests. So don't be alarmed if the problem is not found right away.

For a man, doctors usually begin by testing his semen. They look at the number, shape, and movement of the sperm. Sometimes doctors also suggest testing the level of a man's hormones.

For a woman, the first step in testing is to find out if she is ovulating each month. There are several ways to do

this. A woman can track her ovulation at home by:

- recording changes in her morning body temperature (basal body temperature) for several months
- recording the texture of her cervical mucus for several months
- using a home ovulation test kit (available at drug or grocery stores)

Doctors can also check if a woman is ovulating by doing blood tests and an ultrasound of the ovaries. If the woman is ovulating normally, more tests are needed.

Some common tests of fertility in women include:

- **Hysterosalpingography:** In this test, doctors use x-rays to check for physical problems of the uterus and fallopian tubes. They start by injecting a special dye through the vagina into the uterus. This dye shows up on the x-ray. This allows the doctor to see if the dye moves normally through the uterus into the fallopian tubes. With these x-rays doctors can find blockages that may be causing infertility. Blockages can prevent the egg from moving from the fallopian tube to the uterus. Blockages can also keep the sperm from reaching the egg.
- **Laparoscopy:** During this surgery doctors use a tool called a laparoscope to see inside the abdomen. The doctor makes a small cut in the lower abdomen and inserts the laparoscope. Using the laparoscope, doctors check the ovaries, fallopian tubes, and uterus for disease and physical problems. Doctors can usually find scarring and endometriosis by laparoscopy.



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**Q: How do doctors treat infertility?**

**A:** Infertility can be treated with medicine, surgery, artificial insemination or assisted reproductive technology. Many times these treatments are combined. About two-thirds of couples who are treated for infertility are able to have a baby. In most cases infertility is treated with drugs or surgery.

Doctors recommend specific treatments for infertility based on:

- test results
- how long the couple has been trying to get pregnant
- the age of both the man and woman
- the overall health of the partners
- preference of the partners

Doctors often treat infertility in men in the following ways:

- **Sexual problems:** If the man is impotent or has problems with premature ejaculation, doctors can help him address these issues. Behavioral therapy and/or medicines can be used in these cases.
- **Too few sperm:** If the man produces too few sperm, sometimes surgery can correct this problem. In other cases, doctors can surgically remove sperm from the male reproductive tract. Antibiotics can also be used to clear up infections affecting sperm count.

Various fertility medicines are often used to treat women with ovulation problems. It is important to talk with your doctor about the pros and cons of these medicines. You should understand the risks, benefits, and side effects.

Doctors also use surgery to treat some causes of infertility. Problems with a woman's ovaries, fallopian tubes, or uterus can sometimes be corrected with surgery.

**Intrauterine insemination (IUI)** is another type of treatment for infertility. IUI is known by most people as artificial insemination. In this procedure, the woman is injected with specially prepared sperm. Sometimes the woman is also treated with medicines that stimulate ovulation before IUI.

IUI is often used to treat:

- mild male factor infertility
- women who have problems with their cervical mucus
- couples with unexplained infertility

**Q: What medicines are used to treat infertility in women?**

**A:** Some common medicines used to treat infertility in women include:

- **Clomiphene citrate (Clomid):** This medicine causes ovulation by acting on the pituitary gland. It is often used in women who have Polycystic Ovarian Syndrome (PCOS) or other problems with ovulation. This medicine is taken by mouth.
- **Human menopausal gonadotropin or hMG (Repronex, Pergonal):** This medicine is often used for women who don't ovulate due to problems with their pituitary gland. hMG acts directly on the ovaries to stimulate ovulation. It is an injected medicine.



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- **Follicle-stimulating hormone or FSH (*Gonal-F, Follistim*):** FSH works much like hMG. It causes the ovaries to begin the process of ovulation. These medicines are usually injected.
- **Gonadotropin-releasing hormone (Gn-RH) analog:** These medicines are often used for women who don't ovulate regularly each month. Women who ovulate before the egg is ready can also use these medicines. Gn-RH analogs act on the pituitary gland to change when the body ovulates. These medicines are usually injected or given with a nasal spray.
- **Metformin (*Glucophage*):** Doctors use this medicine for women who have insulin resistance and/or Polycystic Ovarian Syndrome (PCOS). This drug helps lower the high levels of male hormones in women with these conditions. This helps the body to ovulate. Sometimes clomiphene citrate or FSH is combined with metformin. This medicine is usually taken by mouth.
- **Bromocriptine (*Parlodel*):** This medicine is used for women with ovulation problems due to high levels of prolactin. Prolactin is a hormone that causes milk production.

Many fertility drugs increase a woman's chance of having twins, triplets or other multiples. Women who are pregnant with multiple fetuses have more problems during pregnancy. Multiple fetuses have a high risk of being born too early (prematurely). Premature babies are at a higher risk of health and developmental problems.

**Q: What is assisted reproductive technology (ART)?**

**A:** Assisted reproductive technology (ART) is a term that describes several different methods used to help infertile couples. ART involves removing eggs from a woman's body, mixing them with sperm in the laboratory and putting the embryos back into a woman's body.

**Q: How often is assisted reproductive technology (ART) successful?**

**A:** Success rates vary and depend on many factors. Some things that affect the success rate of ART include:

- age of the partners
- reason for infertility
- clinic
- type of ART
- if the egg is fresh or frozen
- if the embryo is fresh or frozen

The U.S. Centers for Disease Prevention (CDC) collects success rates on ART for some fertility clinics. According to the 2003 CDC report on ART, the average percentage of ART cycles that led to a healthy baby were as follows:

- 37.3% in women under the age of 35
- 30.2% in women aged 35-37
- 20.2% in women aged 37-40
- 11.0% in women aged 41-42

ART can be expensive and time-consuming. But it has allowed many couples to have children that otherwise would not have been conceived. The most common complication of ART is



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multiple fetuses. But this is a problem that can be prevented or minimized in several different ways.

**Q: What are the different types of assisted reproductive technology (ART)?**

**A:** Common methods of ART include:

- In vitro fertilization (IVF) means fertilization outside of the body. IVF is the most effective ART. It is often used when a woman's fallopian tubes are blocked or when a man produces too few sperm. Doctors treat the woman with a drug that causes the ovaries to produce multiple eggs. Once mature, the eggs are removed from the woman. They are put in a dish in the lab along with the man's sperm for fertilization. After 3 to 5 days, healthy embryos are implanted in the woman's uterus.
- **Zygote intrafallopian transfer (ZIFT) or Tubal Embryo Transfer** is similar to IVF. Fertilization occurs in the laboratory. Then the very young

embryo is transferred to the fallopian tube instead of the uterus.

- **Gamete intrafallopian transfer (GIFT)** involves transferring eggs and sperm into the woman's fallopian tube. So fertilization occurs in the woman's body. Few practices offer GIFT as an option.
- **Intracytoplasmic sperm injection (ICSI)** is often used for couples in which there are serious problems with the sperm. Sometimes it is also used for older couples or for those with failed IVF attempts. In ICSI, a single sperm is injected into a mature egg. Then the embryo is transferred to the uterus or fallopian tube.

ART procedures sometimes involve the use of donor eggs (eggs from another woman), donor sperm, or previously frozen embryos. Donor eggs are sometimes used for women who can not produce eggs. Also, donor eggs or donor sperm is sometimes used when the woman or man has a genetic disease that can be passed on to the baby. ■



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### *For more information...*

You can find out more about infertility by contacting the National Women's Health Information Center (NWHIC) at 1-800-994-9662 or the following organizations:

**Food and Drug Administration (FDA)**

Phone Number(s): (888) 463-6332

Internet Address: <http://www.fda.gov>

**Resolve: The National Infertility Association**

Phone Number(s): (888) 623-0744

Internet Address: <http://www.resolve.org>

**American College of Obstetricians and Gynecologists (ACOG) Resource Center**

Phone Number(s): (800) 762-2264

Internet Address: <http://www.acog.org>

**InterNational Council on Infertility Information Dissemination, Inc.**

Phone Number(s): (703) 379-9178

Internet Address: <http://www.inciid.org/>

**American Society for Reproductive Medicine**

Phone Number(s): (205) 978-5000

Internet Address: <http://www.asrm.org/>

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