## **Evaluating Infertility**

· What is an infertility evaluation?

Exams and tests are used in an infertility evaluation to try to figure out why you and your partner haven't been able to conceive. Treatment may be possible if a cause is discovered. Even if no cause is established, infertility can often be successfully treated.

The first assessment is usually done by your ob-gyn. A reproductive endocrinologist may also be consulted (an ob-gyn with special training in infertility). A man may schedule an appointment with an urologist. It's important to pick an expert with whom you feel more comfortable.

When should I consider having an infertility evaluation?

If you haven't become pregnant after a year of regular sexual intercourse without taking birth control, experts recommend getting an infertility evaluation. After 6 months of attempting, an evaluation is suggested if you are over 35. If you're over 40, schedule an evaluation with your obstetrician—gynecologist (ob-gyn) now.

What causes infertility?

Ovulation problems are the most common cause of female infertility. An issue with sperm cells and how they operate is the most common cause of male infertility. Age, lifestyle, and health issues are among factors that can affect fertility. Unexplained infertility is the term used when no cause of infertility is discovered.

Moderate or severe use of alcohol, as well as smoking, can impair fertility in women. Smoking, excessive drinking, and marijuana use can all decrease sperm count and mobility in men. Women who are underweight, overweight, or overly active may have a more difficult time conceiving.

How does age affect fertility?

In a healthy couple in their 20s or early 30s, the chances of a woman becoming pregnant in a single menstrual cycle are roughly 25 to 30 percent. In a woman's early 30s, this percentage begins to fall. After the age of 37, it begins to decline quicker.

By the age of 40, a woman's chances of becoming pregnant per menstrual cycle

have dropped to less than 10%. Fertility drops in men as well, but not as predictably as it does in women.

How can health conditions affect fertility?

Several health problems can affect women's fertility, including issues with reproductive organs or hormones; scarring or blockages of the fallopian tubes (from past sexually transmitted infections [STIs] or endometriosis); and problems with the thyroid gland or pituitary gland.

Infertility in men can be caused by a blockage in the tubes that deliver sperm from the testicles.

What should I expect during my first visit for infertility?

A complete medical history and physical examination are frequently included in the first visit with a reproductive expert. Your menstrual period, abnormal vaginal bleeding or discharge, pelvic pain, and illnesses that can impact reproduction, such as thyroid disease, will all be discussed. You and your partner will be questioned about medical concerns, which may include the following:

- o Medications (both prescription and over-the-counter) and herbal remedies
- Illnesses, including STIs and past surgery
- Birth defects in your family
- $_{\circ}\quad$  Past pregnancies and their outcomes
- o Use of tobacco, alcohol, and illegal drugs
- Use of marijuana (recreational or medical)

You and your partner also will be asked questions about your sexual history, including:

- Methods of birth control
- How long you have been trying to get pregnant
- How often you have sex and whether you have difficulties
- If you use lubricants during sex
- Past sexual relationships
- What tests are done for infertility?

Laboratory tests, imaging studies, and specific treatments are all used to diagnose infertility. The reproductive organs are examined using imaging tests and procedures. Blood or sperm samples are frequently tested in laboratories.

A semen analysis (sperm count) is frequently used when testing a man. This determines the number of sperm, the shape of the sperm, and the direction in which the sperm go. Male reproductive hormone levels are measured in blood testing. Too much or too little of these hormones can interfere with the production of sperm or the ability to have intercourse. An ultrasound examination of the scrotum may be performed in some circumstances to look for abnormalities with the testicles.

When testing a woman, blood and urine tests may be included. A urine test can tell when and if you ovulate. Blood tests can measure:

- Progesterone levels (to see if you have ovulated)
- Thyroid function (problems with the thyroid may cause infertility)
- Levels of the hormone prolactin (high levels can disrupt ovulation)
- Ovarian reserve (egg supply)

Imaging tests and procedures may include:

- Ultrasound exam
- Sonohysterography
- Hysterosalpingography
- Hysteroscopy
- Laparoscopy

Some tests are done based on results of previous tests and procedures, so you may not need to have it all done. You also may track your basal body temperature (BBT) at home.

What is the purpose of tracking basal body temperature?

Around the time of ovulation, a woman's temperature rises. You'll need to take your temperature by mouth every morning before getting out of bed to track ovulation. For two or three menstrual cycles, you keep track of your temperature on a chart.

Ovulation can be confirmed by charting monthly temperature fluctuations, but it cannot be predicted. While tracking BBT, some women also keep an eye on their cervical mucus. A woman's cervical mucus becomes thin, slippery, and elastic just before ovulation. Cervical mucus monitoring is a natural technique for a woman to determine when she is most fertile.

What does a urine test determine?

The release of an egg is triggered by an increase in luteinizing hormone (LH) level. A urine test detects an increase in the LH in the urine to identify when and if you ovulate. If the test is positive, ovulation is likely to happen during the next 24 to 48 hours. This will help you figure out when the optimal time is to have sex.

How is a progesterone test done?

A blood sample is taken about a week before your menstrual cycle is due for a progesterone test. You've ovulated if your progesterone level has risen.

What is the purpose of a thyroid function test?

Thyroid gland abnormalities might lead to reproductive issues. The levels of hormones that control the thyroid gland are examined to assess if it is working normally if a thyroid problem is suspected.

What is the purpose of imaging tests and procedures?

To look for issues in the uterus, ovaries, and fallopian tubes, various imaging tests and procedures are performed. If problems are discovered, some procedures are used to treat them. The operations you undergo are determined by your symptoms as well as the severity of your condition. Common imaging tests for female infertility include the following:

- Ultrasound exam—This test can predict when ovulation will occur by viewing changes in the follicles.
- Sonohysterography—This special ultrasound exam looks for scarring or other problems inside the uterus.
- Hysterosalpingography—This X-ray procedure shows the inside of the uterus and whether the fallopian tubes are blocked.
- Hysteroscopy—This procedure uses a camera with a thin light source that is inserted through the cervix and into the uterus. This can show problems inside the uterus and help guide minor surgery.
- Laparoscopy—This procedure uses a camera with a thin light source that is inserted through the abdomen. This can show the fallopian tubes, ovaries, and the outside of the uterus.
- How long does infertility testing take?

An infertility evaluation can last a few menstrual cycles in most cases.

## Glossary

Basal Body Temperature (BBT): The temperature of the body at rest.

**Birth Control:** Devices or medications used to prevent pregnancy.

**Endometriosis:** A condition in which tissue that lines the uterus is found outside of the uterus, usually on the ovaries, fallopian tubes, and other pelvic structures.

**Fallopian Tubes:** Tubes through which an egg travels from the ovary to the uterus.

**Follicles:** The sac-like structures inside the ovary where eggs develop.

**Hormones:** body-produced chemicals that regulate the activity of cells and organs.

**Hysterosalpingography:** A special X-ray procedure that involves injecting a tiny volume of fluid into the uterus and fallopian tubes to look for abnormalities or determine if the tubes are clogged.

**Hysteroscopy:** A procedure in which a lighted telescope is inserted into the uterus through the cervix to view the inside of the uterus or perform surgery.

**Infertility:** The inability to get pregnant after 1 year of having regular sexual intercourse without the use of birth control.

**Laparoscopy:** A surgical procedure in which a laparoscope (narrow, lighted telescope), is introduced into the abdomen through a small cut. The pelvic organs are viewed with a laparoscope. Other surgical devices can be used in conjunction with it.

**Luteinizing Hormone (LH):** A hormone made in the pituitary gland that helps an egg to be released from the ovary.

**Menstrual Cycle:** The monthly series of changes that occur to prepare a woman's body for prospective pregnancy. A menstrual cycle is defined as the first day of

menstrual bleeding of one cycle to the first day of menstrual bleeding of the next cycle.

Obstetrician-Gynecologist (Ob-Gyn): A doctor specialist in women's health.

**Ovaries:** Organs in women that contain the eggs necessary to get pregnant and make important hormones, such as estrogen, progesterone, and testosterone.

Ovulation: The time when an ovary releases an egg.

**Pituitary Gland:** A gland located near the brain that controls growth and other changes in the body.

**Progesterone**: A female hormone that is made in the ovaries and prepares the lining of the uterus for pregnancy.

**Reproductive Endocrinologist:** An obstetrician–gynecologist with special training to manage disorders related to hormones of the reproductive system. These specialists also treat infertility.

**Scrotum:** The external genital sac in the male that contains the testicles.

**Semen:** The fluid made by male sex glands that contains sperm.

**Sexual Intercourse:** The act of the penis of the male entering the vagina of the female. Also called "having sex" or "making love").

Sexually Transmitted Infections (STIs): Infections that are spread by sexual contact. Infections include chlamydia, gonorrhea, human papillomavirus (HPV), herpes, syphilis, and human immunodeficiency virus (HIV, the cause of acquired immunodeficiency syndrome [AIDS]).

**Sonohysterography:** A procedure in which sterile fluid is injected into the uterus through the cervix while ultrasound images are taken of the inside of the uterus.

**Sperm:** A cell produced in the male testicles that can fertilize a female egg.

**Testicles**: Paired male organs that produce sperm and the male sex hormone testosterone. Also called "testes."

**Thyroid Gland:** A butterfly-shaped gland located at the base of the neck in front of the windpipe. This gland makes, stores, and releases thyroid hormone, which controls the body's metabolism and regulates how parts of the body work.

**Ultrasound Exam:** A test in which sound waves are used to examine inner parts of the body. During pregnancy, ultrasound can be used to check the fetus.

**Urologist:** A physician who specializes in treating problems of the kidneys, bladder, and male reproductive system.

**Uterus**: A muscular organ in the female pelvis. During pregnancy, this organ holds and nourishes the fetus.

SOURCE: Evaluating Infertility | ACOG