

Infertility and Men

WHAT IS INFERTILITY?

Infertility is the inability of a sexually active couple who are not using birth control to get pregnant after one year of trying. Problems in the male partner affect about 40 percent of infertile couples.

DID YOU KNOW?

Couples can have more than one cause of infertility.

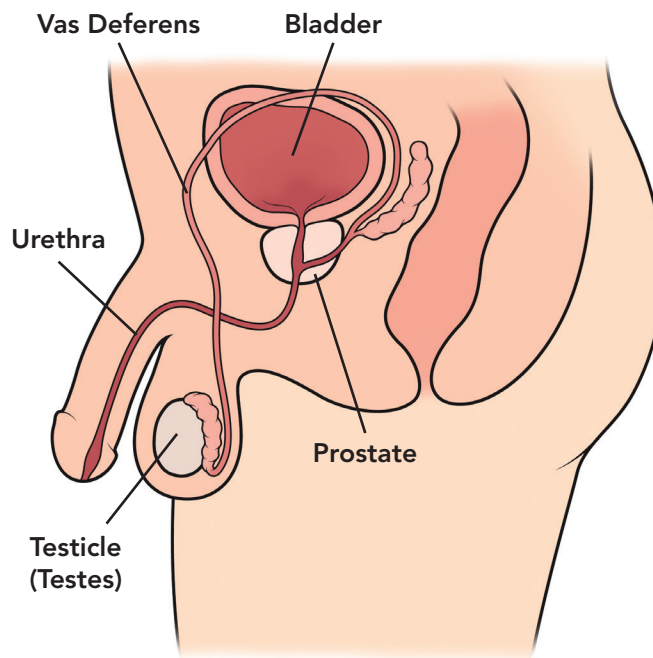
WHAT CAUSES MALE INFERTILITY?

In about 30 to 40 percent of cases, the problem is in the testes, the glands that produce sperm and testosterone (the main male sex hormone). Damage to the testes can result from infections such as mumps, treatments for cancer such as radiation or chemotherapy, trauma, or surgery.

Heat can affect sperm production. Heat damage may occur if one or both testes fail to descend from near the stomach (where they are located before birth) into the scrotum (the sac of skin that normally holds the testes). Many men have enlarged veins around the testes (known as varicocele) that may also raise the temperature in the testes. If they are very large, varicocele may cause low sperm production.

Certain inherited (genetic) diseases can cause low or no sperm production or sperm that have decreased mobility.

In 10 to 20 percent of cases, the problem is a blockage in the sperm's path from the testes, through tubes called the vas deferens, to the penis. This can be caused by scarring from an infection, a vasectomy (surgery to cut the vas deferens and prevent passage of sperm), or cystic fibrosis (a genetic disease). Backward movement of sperm into the bladder, instead of out through the penis, can also cause infertility.



Rarely, infertility results from a hormone deficiency. Luteinizing hormone (LH) and follicle-stimulating hormone (FSH) cause the testes to produce testosterone and sperm. The pituitary gland, located in the brain, makes these hormones. Any condition that lowers LH and FSH levels, such as a pituitary tumor, can result in low or no sperm production and low blood testosterone levels.

In 30 to 40 percent of men with infertility, the cause cannot be found. But these men usually have abnormal sperm (for instance, sperm that are slow moving, abnormal in shape, or low in number).

Other problems may decrease sperm production and fertility. They include chronic (long-term) illness, poor overall health, obesity, certain prescription drugs, and drug abuse.

HOW IS MALE INFERTILITY EVALUATED?

If you and your partner are unable to conceive after a year of trying, you should speak to your primary care physician, who might refer you to a fertility specialist.

Your doctor will most likely begin with a medical history. Questions will likely include your childhood growth and development and whether you have had past infections and surgeries, sexually transmitted diseases, damage to the testes, and exposure to medications or harmful chemicals.

Your doctor will do a physical exam to look for signs of low testosterone or other conditions that affect fertility (such as small or missing testes). You also will have a semen analysis (often more than one) to look at the quantity, movement, and shape of the sperm. Blood tests look for hormone deficiency.

Also, your doctor might do a scrotal or transrectal ultrasound. This imaging test is to look for enlarged veins around the testes, tumors, or a blockage in the vas deferens.

Your partner should have a medical history and full evaluation done at the same time. This will give you a complete picture of your ability as a couple to have children.

HOW IS MALE INFERTILITY TREATED?

Treatment for male infertility depends on the cause.

- **Surgery.** Surgery can repair a blockage in the sperm transport system. Vasectomy can be surgically reversed in up to 85 percent of cases, but many men remain infertile even after the blockage is fixed (other types of blockage, such as those caused by past infections, can be harder to treat). Repair of varicoceles is more likely to bring back fertility if the veins

are large and if the repair is done before any long-term damage. Surgery also can repair varicoceles, but it may not restore fertility.

- **Hormone therapy.** If the cause is due to low testosterone, treatment with hormone injections (LH and FSH) is usually successful. However, it may take a year or longer of hormone therapy to get enough sperm production and bring back fertility.
- **Assisted reproductive technologies.** Other options for a couple to achieve pregnancy include assisted reproductive technologies. These treatments include inserting collected sperm into the womb, mixing sperm with an egg outside the body (*in vitro* fertilization or IVF), or injecting a single sperm into an egg (intracytoplasmic sperm injection or ICSI).

To improve your chances of successful treatment, it is helpful to maintain a healthy lifestyle. Exercise often, eat a healthy diet, and do not smoke or use recreational drugs. Also, continue treatment for any chronic illness.

Questions to ask your doctor

- What is the cause or causes of my infertility?
- What are my treatment options?
- What are the risks, benefits, and success rates of each of these treatments?
- Should I see a reproductive endocrinologist?

RESOURCES

- Find-an-Endocrinologist: hormone.org or call 1-800-HORMONE (1-800-467-6663)
- Hormone Health Network information on infertility: hormone.org (search for infertility)
- Hormone Health Network and Oncofertility Consortium information about infertility and cancer: www.savemyfertility.org
- American Society for Reproductive Medicine: www.asrm.org
- Society for Assisted Reproductive Technology: www.sart.org
- Mayo Clinic: www.mayoclinic.com/health/male-infertility/DS01038

EDITORS

Bradley D. Anawalt, MD
Alvin M. Matsumoto, MD
Maria Yialamas, MD

The Hormone Health Network offers free, online resources based on the most advanced clinical and scientific knowledge from the Endocrine Society (endosociety.org). The Network's goal is to move patients from educated to engaged, from informed to active partners in their health care. This fact sheet is also available in Spanish at hormone.org/Spanish.

