Male infertility evaluation: what do I need to know?

What is the definition of infertility?
Infertility is the inability to achieve pregnancy after one year of unprotected sex.

How often are male factors involved?
Male factors alone are the cause of infertility in 20%–30% of couples and contribute to infertility in another 20%–30% of couples. Overall, about one half of fertile couples have male factor causes.

How is male infertility evaluated?
The initial male infertility evaluation starts with a medical and reproductive history and two semen analyses (sperm counts). If any abnormalities are found in the initial evaluation, then the man should see a male reproductive specialist. The specialist will take a complete history and perform a physical examination and, based on those results, may recommend further testing.

What other testing should a man have?
A man should have hormone testing if his sperm count is less than 10 million per milliliter. If his sperm count is less than 5 million per milliliter, he should have genetic testing.

What male factors can cause infertility?
Some of the common problems that cause infertility include a varicocele, obstruction, and medications.

Varicocele
A varicocele is an abnormal dilation of veins within the scrotum and is detected on physical examination. It is more common on the left but it can occur on both sides. In addition to infertility, a varicocele can cause discomfort. Generally, it is recommended that a varicocele be corrected if a man is infertile, has an abnormal semen analysis, and there is little or no infertility issue in the female partner. Most men with a varicocele, however, are not infertile and have no problems related to the varicocele. For more information about varicoceles, see the ASRM fact sheet titled Varicocele.

Obstruction
Another common cause of male infertility is obstruction, or a blockage in the reproductive tract. The most common reason is vasectomy, but other conditions such as trauma or infection can also lead to blockage.

Medications
Medications can also cause infertility. In some cases, simply stopping the medication can allow a man and his partner to have a pregnancy. Common medications that cause infertility include testosterone and chemotherapy (for cancer). Both types of medications cause infertility by suppressing sperm production. In most men, stopping testosterone will allow sperm production to return to the same level as before starting the medicine. Depending on the amount and type of chemotherapy, some men will recover sperm production over time. Because many men will not recover sperm production, however, it is important for men to freeze sperm prior to chemotherapy. For more information, see the ASRM fact sheet titled Male cancers, cryopreservation, and fertility.

Other causes of male infertility include hormone abnormalities and ejaculation problems. These problems are less common but can be treatable. Men with some hormonal problems should have specialized testing to rule out a serious underlying problem such as a pituitary (brain gland) disorder. Some men will have an underlying genetic problem that is the cause of their infertility. Some of the problems are treatable. Men with genetic problems should be counseled about how these problems may affect them or the children that could be conceived. In a significant number of men, the cause of infertility cannot be identified.

How can these male infertility problems be treated or corrected?
The treatment depends on the cause. Varicocele can be corrected surgically or with other procedures. As many as 40% of men can have a pregnancy after varicocele correction depending on the degree of improvement in sperm count and movement (motility) and on the female factors contributing to infertility.

In many cases, surgery can be done to reverse a vasectomy. The chance for success with vasectomy reversal depends on how long ago the vasectomy was performed, what surgical technique was used, and female factors, such as the age of the female partner.

Hormonal problems and some ejaculation problems can be treated with medications, depending on the specific cause.

Is it possible to have a child if one has one of these other problems that cannot be corrected?
Yes. Some men with an uncorrectable problem, or one that they do not want corrected, can have their own biological children. As long as sperm can be obtained, then pregnancy is possible with specialized fertility treatments. Some men can have sperm retrieved from the reproductive tract (testicle or epididymis) for use with in vitro fertilization (IVF). For more information about IVF, see the ASRM fact sheet titled In vitro fertilization (IVF).

Created 2015
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