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THE MALE INFERTILITY WORKUP

When a couple is having difficulty having a child, it is estimated that up to 50% of the time the male partner has a problem contributing to the lack of successful conception.

Did you know that the cycle of sperm production and maturation takes about 74 to 90 days? This means that things you do today can affect your sperm for up to 3 months. Examples are repeated exposure to high heat environments, high fever, strenuous exercise, certain medications, smoking, alcohol or recreational drug use.

Heat exposure to the testicles has been shown to have a very detrimental effect on sperm production and quality, which is the reason for recommending that men who are trying to initiate a pregnancy avoid hot tubs, long-distance driving, use of portable computers on the lap or extended bicycle rides.

Contrary to popular belief, storing up your sperm by not ejaculating for long periods of time does not improve your sperm quality. You may gain a slightly higher number of sperm in your ejaculate, but you will likely also have fewer motile (swimming) sperm and a higher concentration of dead cells and debris.

Why Do I Need To Have A Semen Analysis?

A semen analysis will tell you how many sperm are being produced, but many more pieces of information may be gained. Here are the 2010 WHO Guidelines for minimal values:

Volume: How much semen is produced? The normal volume is greater than 1.5 milliliters, which is about a 1/3 of a teaspoon. Large variations from this can indicate other medical conditions that may require treatment.

Count: the number of sperm that are present. A normal Sperm count is 15 Million sperm per ml or at least 39 million total sperm in the ejaculate.

Motility: the percentage of sperm that are swimming (alive). Normal Motility is 40% or greater (typically measured at one hour after ejaculation).

Progression: the quality of forward movement of the motile sperm; sluggish sperm may not be able to navigate the fallopian tubes and reach the egg. Normal values are at least 32% forward progression.

Morphology: the shape of the sperm cells themselves. There are 2 typical methods for determining sperm morphology- WHO and Kruger (Strict morphology method). Normally shaped sperm are required for the normal fertilization of an egg. The new WHO standard is 4% or greater normal forms using "strict" criteria.



Other Semen Elements: Also present in semen are a number of other cell types, such as white blood cells, immature sperm cells, different types of crystalline formations, bacteria and cellular debris. Some of these can be indicative of prostate infection, and can alert your physician about the need for other treatment.

As a part of a complete analysis, your physician may also have ordered a **Sperm Survival Test**, also called a 24-hour survival test. The results of this test can tell the physician how well the sperm might survive either in the fallopian tubes (for intercourse or intrauterine insemination) or in culture in the lab overnight (In Vitro Fertilization).

What do I Need To Do To Prepare for a Semen Analysis?

The most important thing to consider is your **abstinence time**. This means the length of time since your last ejaculation, which includes not only sexual intercourse, but also masturbation or wet dreams. For a good analysis your abstinence should be **no more than 5 days** and **no less than 3 days**. A less-than-optimal sample can lead to an incorrect diagnosis, which may make it necessary for you to repeat the test, which can be not only inconvenient for you but also expensive.

You will need to make an appointment for your analysis. The sample can be collected either in laboratory collection facility or at home. The specimen will need to be to the lab <u>within 45 minutes of production</u>. If you are producing a sample at home and delivering it to the lab, you should use a sterile plastic specimen cup and keep it near body temperature during transport. Please make sure the cap is well-tightened; a loose cap can result in sample loss and an inaccurate analysis.

The preferred method of semen collection is masturbation without the use of lubricants. There are not yet any lubricants that have been proven to be non-toxic for sperm cells. Intercourse and withdrawal are also not acceptable, as specimen loss and contamination with vaginal fluids, bacteria and cells often occurs. The same factors are the reason for requesting that no oral stimulation be employed. If masturbation is not an option, there are special semen collection condoms available. These condoms are made of a special plastic and contain no spermicide. If you need to use this method, ask about obtaining one.

What if the Semen Analysis is abnormal?

If an abnormal Semen Analysis is found, you may be asked to submit another specimen or be referred to an Urologist (Specialist in Male Infertility) for further testing and evaluation. Your physician will advise you on treatment options based on the results.

