

# Male Fertility and Assessing the Couple



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It wasn't that long ago that men weren't thought to have a "biologic clock." It also wasn't that long ago that the only assessment of male fertility thought to be important was the sperm count. It was believed that if there was a good number of sperm then everything on the male side was fine. This certainly isn't the case anymore.

It's well known that age affects male factor fertility as do many other things including, environmental exposures such as, smoking, exposure to toxic chemicals and obesity. In addition, some jobs are known to increase the risk of sperm and testicular dysfunction in men, for example, farmers, chemical handlers, those exposed to low-level radiation over time, etc. Further, even the area of the country in which one lives might affect fertility in men, e.g., rural inhabitants/workers or those living in densely populated urban areas. Since many of these factors don't affect the traditional parameters of sperm count or motility, which are typically assessed on a semen analysis, this analysis is now inadequate as a good measure of male fertility potential.

These environmental exposures, age, occupation, etc., affect sperm largely on a qualitative level. These factors can alter DNA constitution as well as chromatin integrity. We can now measure these with several different tests from a single semen sample. Therefore, the male factor assessment now looks at quantitative aspects

(count and motility) and qualitative aspects, which are, relatively speaking, more influential as independent predictors of fertility potential.

The measures that are most commonly examined and clinically valuable in helping patients determine treatment options as well as success of those options include DNA fragmentation, high DNA stainability and high-resolution morphologic assessment of the sperm. All of these tests in addition to count and motility can be done on a single semen sample and currently are the optimal assessment for determining male fertility potential. However, these tests aren't available at just any laboratory or hospital, but are easy to obtain through physicians' offices and reproductive specialist centers that take interest in male testing. Even if the sperm count is within the normal



range on basic analysis, significant abnormalities can be discovered by these other tests, obviously influencing fertility. I believe that men seeking fertility treatment with their partners, or men who are in high-risk situations through occupation or environmental exposure should be screened with these simple tests. I encourage you to bring these things up with your physician or seek further information by contacting us.

The majority of treatment decisions are based upon diagnostic information from a medical standpoint. Obtaining the proper information regarding **male and female fertility** factors that play a role is of utmost importance. Understanding the fundamentals of what makes fertility possible is key. These include: the uterus, ovaries and sperm. These are the foundations of what makes a baby and successful pregnancy. While the female side is quite important, remember that just because sperm count is 'good', there may be other issues on the male side.

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The diagnostic evaluation is geared toward understanding these influences. Unfortunately, often a suboptimal evaluation is relied upon, making the subsequent treatment less effective or worse, inappropriate.

Once these issues are understood, the patient/couple can make intelli-

In fertility testing, we're simply trying to answer a series of questions, including:

- What are the problems that are affecting fertility adversely? Meaning, what medical problems exist for this couple?

- What are the treatment options available?

- What are the chances, given the current set of circumstances and problems, of any treatment resulting in ongoing pregnancy?

- How do we best pursue the treatment and manage it to optimize a positive outcome?

- What are the costs of these treatment options?

- When can we initiate treatment?

Hopefully, understanding this basic information and the "ground rules" is helpful. By understanding the concepts of female AND male fertility, we go a long way in understanding how to address infertility issues on a case-by-case basis.

gent, informed decisions about what treatment options are available, the projected treatment option's success and what treatment option best suits them.

Once the treatment option is chosen, the last question is, "when do we proceed with treatment?"

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