



## **Male Factor Infertility**

In couples presenting with infertility, 35% of the time a male factor is identified. The most important test to evaluate a man is a semen analysis. There is a large daily variation in the semen analysis in the same individual. For that reason multiple samples may be needed for reliable interpretation.

Normal semen analysis parameters are as follows:

- Normal volume is 2-5 cc. Volumes less than 1 cc suggest either an obstruction of ejaculatory ducts, retrograde ejaculation, or incomplete collection.
- Count: Count should be greater than 20 million sperm per cc for normal fertility.
- Motility: 50% of sperm should be moving 2 hours after collection.
- Morphology (Normal appearing sperm): The World Health Organization Standards require 40% of sperm to be normal. Using "strict criteria" described by Kruger, greater than 4% of the sperm should be normal to insure fertility.

There are many other tests of sperm function. These tests are used infrequently in clinical settings because of unreliable and non productive results. Recently, tests to measure the breakage of the sperm's DNA have been developed. Preliminary testing has shown mixed results and there has been no wide spread acceptance of the test.

One of the most common causes of a low sperm count, low motility and low morphology is a varicocele. A varicocele is a dilation of the veins around the testicles. This condition can be found in 20-40% of men who have male factor infertility. The cause of the sperm abnormalities are not clear, but may be related to increased testicular temperature.

The most common treatment of abnormal sperm parameters is intrauterine insemination. Surgical ligation of the spermatic vein may improve sperm parameters. If both treatments fail, in vitro fertilization (IVF) with intracytoplasmic sperm injection (ICSI) may be considered.