

Sperm's Function in Reproduction

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In the process of reproduction in couples, the female and male factors interact equally in importance. One or several alterations in any of these factors can cause sterility. Because of these equally important roles, the gynecologist treating a patient wanting to get pregnant, must pay equal attention to the potential of a pathology in the spouse. Generally, in 40% of the cases the etiology is caused by the male, 40% by the female, and in 20% of all cases it is shared by both the male and female.

In order to diagnose these diseases in males a Spermogram, also known as a direct Sperm Bioscopy is performed. That is to sat a macroscopic and microscopic exam is done of the ejaculated semen, where color, quantity or volume, viscosity, alkalinity, and above all and most importantly, the amount of sperm per millimeter, their mobility, and the number of well-formed sperm are tested.

The World Health Organization, along with most international organizations that guide the medical arena in human reproduction have agreed to use the term "Normozoospermia" to indicate normal test results, "Oligozoospermia" indicates test results containing a sperm count of less than 20 million per ml, or 60 million total count. "Aspermia" or "Azoospermia" refer to a condition where there is no sperm in the sample; "Teratozoospermia" is when there is an abundance of abnormally-shaped sperm; "Astenozooaspermia," refers to the presence of considerable alterations in the motility of the sperm, and "Oligoastenozoospermia," when there are alterations in the quantity and motility of the sperm in the sample.

Oligozoospermia and Astenozoospermia are the most commonly found alterations in male infertility. Their study and treatment is somewhat difficult because of the complexity in determining the precise etiology. The origin can be secretory, or in cases where there are alterations of the Spermatogenesis, an excretory factor caused by the obstruction of a segment of the seminal tract may be the culprit. There can also be a mixture of both secretory and excretory causes. In more exceptional cases there are mechanical causes, as in retrograde ejaculation. Azoospermia has a guarded prognosis, except in cases that respond to treatment with hormones.

The absence of sperm, because of obstruction in any part of the seminal tract, is treated with surgery in most cases. Another option is the collection of sperm for application in Assisted Reproductive Techniques. Of all the Asoospermias postvasectomy differential obstruction has the best prognosis. Astenozoospermia is usually secondary to acute or chronic infections, acute or chronic traumas to the testicles, and environmental, when there is a prolonged exposure to heat and chemical products. The male factor is responsible for 40% of infertility cases in couples, and may be corrected to achieve satisfactory human reproductive functions.