

What's Up With Male Fertility?



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As my father used to say, "It takes two to tango." While a great deal of cultural and medical emphasis has been historically focused on the woman in fertility and infertility, in fact it indeed requires 2 partners to conceive a child, and the male is responsible for half when it works and when it doesn't. Male infertility is a fast moving field, and there is much we can do to diagnose and treat it.

As resources, the 5th edition of [Infertility in the Male](#) is nearly in production, and the 6th edition of the [WHO Laboratory Manual for the Examination and Processing of Human Semen](#) has recently been released. The flagship journal in the field, *Fertility and Sterility*, now has 3 sister journals, *F&S Reports*, *F&S Science*, and *F&S Reviews*. The 'Fertility and Sterility Dialog' is open to all interested and you can sign up to access it at www.fertsterdialog.com.

This talk focuses on 4 main areas. In the first, the physiology of male reproduction is described, how a sperm starts as an undifferentiated cell in the testis and its course to become the exquisite swimming machine that ultimately fertilizes the

ovum in the female reproductive tract. In the male, spermatogenesis is under control of the endocrine system, and much is similar to the female: for example, it is estradiol in the male that exerts negative feedback on the release of LH, which stimulates the production of testosterone.

In the second part, the semen analysis is described including the newly updated centiles for bulk parameters. In the third part, surgical treatment for varicocele and for azoospermia is covered. The use of the FSH assay with a threshold of 7.6 international units/L and measuring the testis longitudinal axis via a caliper orchidometer with a limit of 4.6 cm to discern between the diagnoses of obstructive azoospermia and azoospermia due to spermatogenic dysfunction is explained. There is no need to do a diagnostic testis biopsy. For the treatment of azoospermia due to spermatogenic dysfunction, microdissection testicular sperm extraction is the preferred modern route, and endocrine stimulation prior to surgical sperm extraction leads to improved yields. Finally, cryopreservation of testis derived sperm is emphasized for its equal outcomes to fresh as well as comfort for the couple and the knowledge of whether or not biological gametes from the male are available prior to *in-vitro* fertilization.

Much is up today with male fertility, and this talk covers the highlights.