

Clinic treats male-factor fertility issues



While fertility treatments have typically focused on the female partner, male-factor fertility problems play a role for about half of all couples having difficulty getting pregnant. When properly identified, most male-factor fertility problems can be overcome and couples can often succeed in initiating a pregnancy.

Lifestyle options for improving male fertility

Nutrition, exercise and sleep are three lifestyle factors that can play large roles in improving male fertility. Good nutrition habits to improve fertility include eating dark-fleshed fruits and vegetables, which are good sources of antioxidants and can improve sperm function. Physical activity also increases antioxidant levels and helps produce healthy sperm.

Poor sleep is associated with hormonal problems in men, including altered testosterone levels. Insufficient sleep and disturbed sleep due to work shifts outside of customary daylight hours can affect men's ability to produce sufficient healthy sperm.

The Men's Clinic at UCLA, which takes a novel approach to men's health by encouraging men to take ownership of their own healthcare, can help direct men to lifestyle habits that are consistent with good reproductive health.

In-house, same-day semen analysis

Since 2015, UCLA has been performing in-house, same-day semen analysis at The Men's Clinic andrology lab in Santa Monica.

"When couples come in for a fertility evaluation, the man's semen can be analyzed and we can review the results as part of the initial consultation and begin planning treatment with the couple on the day of their initial visit," says Jesse N. Mills, MD, associate professor of urology and director of The Men's Clinic at UCLA.

"Instead of having to go to an outside laboratory and waiting for days for the results," explains Dr. Mills, "couples and their physicians are able to get the information they need and we can begin treatment expeditiously."

Male hormonal control

Sperm production is mediated by a number of hormones and will not proceed normally if crucial hormones are either overexpressed or underexpressed. When a patient treated for fertility has an abnormal semen analysis, his hormonal expression is carefully evaluated. When irregularities are found, they can usually be corrected with medical management to improve sperm production and increase chances of pregnancy.

Surgical treatments for male fertility

Surgical interventions to treat male fertility problems fall into two primary categories: spermatic-duct reconstructive surgery and varicocele reduction.

Reconstructive surgery usually involves either a vasectomy reversal or correction of a congenital blockage of the spermatic duct. While many couples have the misconception that success rates for vasectomy reversal are relatively low, the truth is that advances in microsurgical technology and technique have produced success rates that are around 90 percent at experienced centers like UCLA's.

Varicocele is a condition in which blood vessels in the scrotum become dilated and fail to adequately drain blood from the area. Pooled blood raises the temperature around the testes and creates an environment in which sperm production decreases, while sperm that are produced exhibit poor motility.

Surgeons can treat varicoceles using an outpatient, microsurgical procedure. Varicocele-reduction surgery can restore the ability for spontaneous conception in about 40 percent of the men diagnosed with the condition.

Through a one-inch incision in the lower groin, surgeons deploy a high-power surgical microscope and tie off individual varicocele veins on the spermatic cord to prevent blood from pooling in the scrotum. Correcting varicoceles and reducing the temperature in the scrotum can improve sperm quantity and function. Sperm parameters typically start to improve in about three months following the procedure.

Fertility-medicine advances yield new options

Because in-vitro fertilization (IVF) techniques have become increasingly sophisticated, even men with extremely limited sperm production can initiate a pregnancy through the use of a microscopic sperm extraction procedure. Microscopic testicular sperm extraction (micro-TESE) enables male-fertility specialists to search the seminiferous tubules of the testes for areas that visually indicate higher probability of the presence of mature sperm. Cells are extracted from these specific locations, leaving the other testicular tissue undisturbed.

Micro-TESE is performed in coordination with the female partner's reproductive endocrinologist, who introduces individual sperm into harvested eggs using intracytoplasmic sperm injection (ICSI).

Thanks to these advanced techniques, even men who produce near-zero quantities of sperm can take part in a biological pregnancy. In the past, such couples would have been limited to either the use of donor sperm or adoption.

Participating Physicians

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