## TREATMENT OPTIONS FOR MALE INFERTILITY



Male infertility is caused by problems that affect either sperm production or sperm transport. 50–60% of them have issues with sperm production from the testes due to genetic factors or testicular damage for various reasons. 20% are infections that obstruct the tube-carrying sperms to ejaculate. Hormonal disorders, sexual dysfunction, varicocele, abnormal lifestyle, stress, obesity, smoking, alcohol intake, etc., are other causes.

Semen analysis is the preliminary test advised to assess the malefactor. Advanced tests like hormonal analysis, scrotal ultrasound, semen culture, DNA fragmentation index, genetic tests are recommended if basic semen analysis is abnormal.

## There Are Many Options Available To Father A Child.

- Lifestyle Changes: Avoiding heavy smoking and drinking alcohol, regular exercise, healthy eating habits, adequate sleep, etc., may help to improve the quality of semen.
- Medical Management: Medicines like Clomiphene citrate, anastrozole, gonadotropins, etc., are prescribed if infertility is due to hormonal disorders. Antioxidants like Co-Enzyme Q10, L-Carnitine, Lycopene, etc., can be used to improve the quality of semen.
- IUI (Artificial insemination): Advised when the sperm count is between 10-15mill/ml or when motility is marginally affected. During ovulation, ejaculated semen sample is washed, motile sperms are separated, and then placed in the female partner's womb with a special catheter.
- IVF (In-Vitro- Fertilization) / ICSI (Intra-Cytoplasmic-Sperm-Injection): Advised when the sperm count is very low or very poor motility. It is a test tube baby procedure when after collecting eggs from a female partner, sperms are fertilized/ injected with/in the eggs. Fertilized embryos are cultured and transferred into the womb.
- **DFI:** High DFI (DNA fragmentation of sperms) is known to reduce fertilization, affect embryo quality, increase aneuploidies, etc., which reduces success in ART. Advanced procedures like Magnetic activated cell sorting and microfluidics are used to treat high DFI within the sperm sample.
- TESA/PESA: Advised when there are no sperms in an ejaculate despite having an average hormonal profile. Sperms are obtained through a needle directly from testes or epididymis. Sperms that are obtained are then used for ICSI.
- Donor Sperms: Advised when there are no sperms in the ejaculate along with abnormal hormonal profile- "Testicular Failure". Also suggested in patients with a severe male factor and not able to afford IVF or failed multiple IVF with self gamete.

Semen Is Collected From Semen Banks And Used Either For IUI Or ICSI Based On Female Fertility Profiles.



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