

All About Male Infertility

Male infertility refers to inability to cause conception in a fertile female within 12 months of unprotected intercourse.

Popular myth is that women is the cause always, which is fallacious. Infact 40% of infertility cases are attributed to male where as 20 % are due to both male and female factors. Semen analysis is the easiest and informative test available to know the fertility status of a man, yet most men are hesitant to get it done.

It is caused by problems that affect either sperm production or sperm transport. 50-60% of infertile men have problems in sperm production from testes which may be due to genetic factors or testicular damage from various reasons. 20% are due to infections like mumps, sexually transmitted diseases which cause obstruction to the tube carrying sperms to the ejaculate.

Hormonal disorders, erectile dysfunction, ejaculatory problems, testicular cancer, varicocele, surgery for hernia, undescended testis are some of the other factors. Lifestyle, stress, obesity, use of laptops, smoking, alcohol intake further worsens male fertility.

In Semen analysis we look for count, motility and morphology of sperms.

A person is labelled infertile only if one of these parameters are found to be abnormal. However, the main drawback of semen analysis is that, it cannot assess

the amount of DNA damage within the sperms. DNA fragmentation index (DFI) is such test which tells the amount of DNA damage present in semen which helps in taking special precautions in the management.

At Hegde Fertility we use advanced technology called MACS (magnetic activated cell sorting) in men with high DFI where in the damaged sperms are separated from the normal ones which are then used for IUI/ICSI. Other tests like hormonal profile, scrotal ultrasound, genetic analysis may be advised based on history, physical examination and semen analysis report.

TREATMENT:

There are many treatment options to father a child in men with altered fertility.

- **Lifestyle modification:** avoiding heavy smoking and drinking, regular exercise, eating healthy food etc. may to a certain extent improve the quality of semen.
- **Medical management:** hormone therapy is recommended if the semen parameters are affected due to abnormal hormone levels. Antioxidants have potential benefits on improving sperm count and quality.
- **IUI (artificial insemination):** can be done when the count is around 10-12 million. Here semen is washed in the lab and most motile sperms are segregated

which are placed in female's womb through a soft catheter. This is a simple and least expensive procedure.

- **IVF/ICSI:** done when the sperm counts are too low. This is a test tube baby procedure when after removing eggs from female partner, each sperm is injected into the egg under microscope. The eggs then fertilize and divide to form embryos which are replaced in the womb after 3-5 days.
- **TESA/PESA:** done when the hormonal profile is normal yet there are no sperms in ejaculate. Sperms can be removed directly from the testes/epididymis through a tiny needle. Sperms obtained are used for ICSI.
- **Donor sperms:** done when sperms are absent with abnormal hormonal profile (testicular failure). These are taken from semen bank which have been screened for various infectious diseases. The semen is then used for IUI/ICSI depending on female partners potential.



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