



Infertility Evaluation

A Comprehensive Approach to Female and Male Assessment

Infertility is commonly defined as the inability to conceive after 12 months of regular, unprotected intercourse. It is important to remember that it affects both men and women almost equally, This makes a balanced and systematic evaluation of both partners essential. A thorough infertility evaluation not only identifies the cause but also helps in planning appropriate treatment and improving the chances of successful conception. Let's take a look at the assessment of both the genders.

Female Assessment

The evaluation of female infertility focuses on three major aspects: ovulation, uterine health and tubal patency.

Hormonal Tests:

Hormonal evaluation plays a crucial role in determining whether a woman is ovulating regularly. Blood tests are typically performed during specific days of the menstrual cycle. Common hormones assessed include Follicle Stimulating Hormone (FSH), Luteinizing Hormone (LH), Estradiol, Progesterone, Thyroid Stimulating Hormone (TSH), Prolactin and Anti-Müllerian Hormone (AMH). These tests help detect conditions such as polycystic ovarian syndrome (PCOS), thyroid disorders, premature ovarian insufficiency and diminished ovarian reserve.

Ultrasound Examination:

The second commonly used assessment procedure is pelvic ultrasound, especially transvaginal ultrasound, which is a non-invasive and valuable tool. It evaluates the uterus, endometrial lining, ovaries, and the presence of ovarian follicles. It can detect fibroids, ovarian cysts, endometriosis or structural abnormalities that may interfere with implantation or ovulation. Follicular monitoring through serial ultrasounds can also confirm ovulation.

Tubal Evaluation:

One must remember that blocked or damaged fallopian tubes can prevent the egg and sperm from meeting. Tests such as Hysterosalpingography (HSG), Sonosalpingography or Laparoscopy with dye test are used to assess tubal patency. These procedures help identify blockages, adhesions or pelvic infections that may contribute to infertility.



Male Assessment

Male factors account for nearly 40–50% of infertility cases, making semen analysis crucial in male evaluation.

Semen Analysis:

This simple yet critical test examines sperm count, motility (movement), morphology (shape), volume and vitality. Abnormalities in any of these parameters can significantly affect fertility.

Hormonal and Clinical Evaluation:

If semen parameters are abnormal, hormonal tests such as Testosterone, FSH, LH and Prolactin may be advised. Physical examination can detect varicocele, infections or anatomical issues.

Equal roles to play

Infertility evaluation is most effective when both partners are assessed simultaneously. Early, comprehensive testing enables timely diagnosis, reduces emotional stress and increases the likelihood of choosing the right fertility treatment.