

Clinical Update: Streamlined Infertility Work-Up

Guidelines for Infertility Testing

Improvements in diagnostic tests and treatment technology are transforming the medical experience and rate of success for couples struggling with infertility. Greater efficiency and accuracy during the infertility evaluation is key in developing an appropriate treatment plan to help a couple achieve their ultimate goal, a baby.

Over the past several years, the initial female infertility evaluation has evolved to focus more on ovarian function as an indicator of fertility potential. However, assessing the uterine cavity, tubal patency, and semen quantity and quality are still important parts of the evaluation.

The three basic tests used to assess the causes of infertility are:

- Menstrual cycle day 3 bloodwork and transvaginal ultrasound
- Hysterosalpingogram (HSG)
- Semen analysis

In the majority of cases, this information is enough to indicate the cause of infertility and an appropriate treatment plan. Other tests such as a postcoital test, clomiphene citrate (Clomid, Serophene) challenge test, and even routine laparoscopy are no longer indicated simply because the results do not change the treatment plan.

WHAT THE TEST MEASURES

WHAT THE TEST TELLS US

DAY 3 BLOODWORK

- Follicle-stimulating hormone (FSH) level*
- Estradiol (E2) level
- Anti-Müllerian hormone (AMH) level**
- Luteinizing hormone (LH) level

Elevated FSH or E2 levels or decreased AMH levels would suggest a decrease in ovarian reserve. An elevated LH level would suggest anovulation and potentially polycystic ovary syndrome (PCOS).

OTHER BLOODWORK

- Usually completed on cycle day 3 for patient convenience*
- Prolactin level
 - Thyroid-stimulating hormone (TSH) level

Prolactin and TSH levels found to be outside of the normal limits may impact ovulation, resulting in irregular or non-existent ovulation.

TRANSVAGINAL ULTRASOUND

- Completed on cycle day 3*
- Antral follicle count (AFC)

AFC paired with hormone test results give physicians a clear picture of ovarian reserve status.

HYSTEROSALPINGOGRAM (HSG)

Uterine cavity and patency of the Fallopian tubes

Uterine anomalies such as fibroids or polyps can be seen in the cavity during an HSG, along with blockages in the tubes and the presence of hydrosalpinx.

SEMEN ANALYSIS

Quantity and quality of sperm

Semen analysis shows occurrence and severity of male factor infertility.

* FSH levels will vary by the endocrine lab and the assay used, therefore, a patient may need to repeat an abnormal test. We recommend seeking a second opinion and possible further testing

from a fertility specialist in the case of abnormal results.
** AMH can be measured at any time during a woman's menstrual cycle.

Know When to Test for Infertility

A physician should evaluate a couple for infertility if:

- The female partner is under 35 years and the couple has been trying to conceive without success for 1 year.
- The female partner is 35 or older and the couple has been trying to conceive without success for 6 months.
- Women ages 40 and older should consider seeking a fertility evaluation immediately due to a significant loss of ovarian reserve common in this age group.
- A couple should seek an evaluation and infertility treatment immediately in cases of known anovulation, bilateral tubal occlusion, or severe male factor infertility.

[LEARN MORE ABOUT INFERTILITY TESTING ►](#)

9 OUTDATED INFERTILITY TESTS

According to the latest guidelines set forth by the American Society for Reproductive Medicine, the following nine tests should not be used in the routine diagnosis of infertility:

- Routine laparoscopy for unexplained infertility
- Advanced sperm function tests (sperm penetration and hemizona assays)
- Postcoital test (PCT)
- Thrombophilia testing
- Immunological testing
- Karyotype for the initial evaluation of amenorrhea
- Endometrial biopsy
- Prolactin testing in women with regular cycles
- Clomiphene citrate (Clomid, Serophene) challenge test

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