THE INFERTILITY EVALUATION

The infertility evaluation consists of a series of tests that evaluates male and female reproductive function. The objective of the evaluation is to identify potential causes of infertility. Accordingly, your doctor may order some or all of the following tests, as it is important that a complete evaluation be performed. To help familiarize you with these tests and what can be learned from them, a description of each appears below.

Semen Analysis

The semen analysis is the standard test for the evaluation of the male partner. The semen analysis includes an assessment of the sperm concentration, motility (or activity of sperm) and a determination of the percentage of normally shaped sperm. If the initial semen analysis is found to be abnormal, then a repeat analysis may be requested.

Please read carefully and follow these instructions. If you have any questions, feel free to discuss them with us.

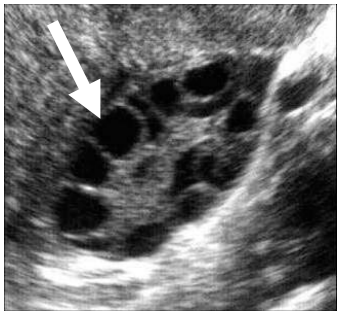
1. The physician should be informed of all medications that you are taking.
2. Exposure of the testes to high temperatures (saunas, hot baths) should be avoided since this will decrease the sperm count.
3. You should abstain from ejaculation for 24 hours before the test. Decreasing the frequency of ejaculation *"to save sperm"* does not improve the results of the semen analysis.
4. The specimen is produced by masturbation into a sterile container that will be provided. The sample can be produced at the laboratory or at home then brought in immediately. For the latter, the specimen should arrive at the laboratory no later than 30 minutes after it is produced. You will be asked to show your driver's license for identification at the time of the drop off. During transport, the specimen should be kept at body temperature and not exposed to extreme heat or cold. If the sample is to be produced at home, a container to collect the sample will be provided.

The results of the analysis will be discussed with you at the follow up consultation or you will receive a letter from your physician. If for any reason the test must be repeated, you will be contacted.

Scheduling:
Please call the administrative assistant that works with your physician to schedule an appointment. .

Testing of Ovarian Reserve

The number and quality of eggs impact fertility and both of which are influenced by the woman's age. To assess the number of remaining eggs in the ovaries (called 'ovarian reserve'), a blood sample can be obtained between days 2-4 of the menstrual cycle to measure follicle-stimulating hormone (FSH) and estradiol (E2). FSH is made by the pituitary gland (located at the base of the brain). FSH stimulates the development of ovarian follicles, which are the fluid-filled cysts in the ovary that contain the eggs. Estradiol is an estrogen hormone, which is produced by the developing follicle. An elevation in the FSH and/or estradiol levels suggests a reduction in the supply of eggs within the ovaries. An ultrasound can also be performed to determine the number of follicles (eggs) that are present. If you have never had a vaginal ultrasound there is no discomfort but only pressure with the exam which only takes a few minutes to perform.

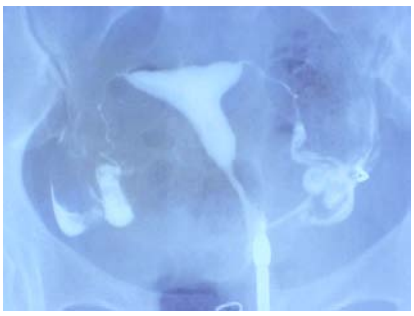


Vaginal Ultrasound image of the ovary
-the arrow is pointing to a follicle (a fluid cyst that

Scheduling
On the first day of your menstrual period (cycle day 1) contact your physician's nurse to arrange for the blood test and an ultrasound, which can be performed between cycle days 2-4. If your period occurs on the weekend, please call first thing Monday morning to schedule the test. These tests are performed every day between 7-10 am.

Hysterosalpingogram (HSG)

An hysterosalpingogram (also called *tubogram* or *hysterogram*) is an x-ray that is performed to examine the uterine cavity and determine whether the fallopian tubes are open.



Performance of the test
First, a speculum is placed in the vagina to visualize the cervix. A small tube is then placed into the cervical canal. An iodine containing fluid is injected gently through this tube into the uterine cavity. The progress of the dye is followed by viewing a television monitor. Generally, the test is completed within 4-5 minutes and is sometimes associated with temporary lower abdominal cramping which resolves after completion of the test. *You may benefit from taking 2-3 tablets (200-mg) of Ibuprofen (Advil, Motrin) one hour before your test.* Upon completion of the test the results will be discussed with you. Following the x-ray you are ready to resume your normal activities and can return to work. A discharge of clear fluid and vaginal spotting may be noted for the next day.

The complication rate from this procedure is less than 2%. Some of the risks include the following:

Pelvic infection- The performance of this test can result in an infection that could produce lower abdominal pain and fever. A consequence of this infection may be scarred fallopian tubes and infertility. An infection is more likely to occur in women who already have damaged fallopian tubes.

Allergic reaction- The contrast media used contains iodine. *If you have had any allergic reaction to iodine, a reaction following another radiological procedure (e.g., CT scans, IVP) please notify your physician.* This may suggest an iodine allergy.

Exposure to potential pregnancy- Please notify your physician if you feel that your previous menstrual period was not normal. In this circumstance a pregnancy test can be done before the procedure.

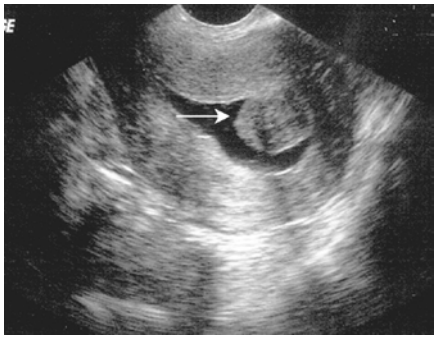
Scheduling
On the first day of your menstrual period (cycle day 1) contact your physician's office to schedule the test. If your period occurs on the weekend, please call Monday morning to schedule the test. The test is performed in a radiologist's office and usually done between cycle days 5-12.

Saline Infusion Sonogram

The saline infusion sonogram (SIS) is a test that examines the uterine cavity and is sometimes done *in lieu* of or in conjunction with the hystero-salpingogram.

Performance of the test
First, a speculum is placed in the vagina to visualize the cervix. A small catheter is then placed through the cervical canal into the uterine cavity. The vaginal ultrasound probe is inserted into the vagina. Once the uterus is brought into view, a saline solution is injected into the cavity through the catheter. Generally, the test is completed within 4-5 minutes. The test is sometimes associated with lower abdominal cramping. *You may benefit from taking 2-3 tablets (200-mg) of Ibuprofen (Advil, Motrin) one hour before your test.* Upon completion of the test the results will be discussed with you. Following the test you are ready to resume your normal activities and can return to work. A discharge of clear fluid and vaginal spotting may be noted for the next day.

Normal SIS study
Arrow points to a normal uterine cavity



Abnormal SIS study
Arrow points to a fibroid present in the cavity

The complication rate from this procedure is less that 2%. The risks associated with the test are as follows:

Pelvic infection- The performance of this test can result in an infection that could produce lower abdominal pain and fever. A consequence of this infection may be scarred fallopian tubes and infertility. An infection uncommon but is more likely to occur in women who already have damaged fallopian tubes.

Exposure to potential pregnancy- Please notify your physician if you feel that your previous menstrual period was not normal. In this circumstance a pregnancy test can be done before the procedure.

Scheduling
On the first day of your menstrual period (cycle day 1) contact your physician's office to schedule the test. If your period occurs on the weekend, please call Monday morning to schedule the test. The test is usually done between cycle days 5-12.

Endometrial Biopsy

An endometrial biopsy is an office procedure that involves the removal of a small amount of tissue from the uterine cavity. A pathologist will then examine the biopsy. Any woman who has a history of infertility, recurrent miscarriages or abnormal of menstrual periods may benefit from the performance of an endometrial biopsy. The endometrial biopsy *is not a routine test* and is done in selected cases.

Performance of the test
First, a speculum is placed in the vagina to visualize the cervix. A small plastic catheter is placed into the cervical canal into the uterine cavity. The biopsy is obtained with this catheter. Generally, the biopsy is completed within a few minutes. The test is associated with some lower cramping. *You may benefit from taking 2-3 tablets (200-mg) of Ibuprofen (Advil, Motrin) one hour before your test.*

The complication rate from this procedure is less that 2%. Some of the risks include pelvic infection which could result in your doctor prescribing antibiotics. Please notify your physician if you feel that your previous menstrual period was not normal. In this circumstance a pregnancy test can be done before the procedure.

After completion of the biopsy you can resume your normal activities and may return to work. Results of should be available one week after the performance of the biopsy.

Scheduling
Your physician will discuss with you the appropriate timing of the biopsy.

Routine Blood work

Routine blood work will be performed to get you ready for a pregnancy. The tests will include a complete blood count to rule out anemia, a blood type and screen. In addition tests will be performed to make sure you are immune to German measles and chicken pox. If you are not immune you may be referred back to your primary care physician for a vaccination. A hepatitis and HIV screen will also be performed. Your doctor may order genetic tests depending on your ancestral background or family history.

Counseling

Dealing with infertility can be stressful. To help deal with the stress, we can refer you to one of our social workers or the Domar Center at Boston IVF which provides extensive services including a mind and body program, acupuncture and massage therapy that can be of benefit.