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## **HYSTEOSALPINGOGRAM (HSG)**

**What is the hysterosalpingogram?** The hysterosalpingogram (HSG) is an x-ray test of the inside of the uterus and fallopian tubes. It is often considered one of the routine tests performed during an infertility evaluation.

**What does it tell you?** The HSG will show blockages of the inside of the uterus and congenital abnormalities of the uterine cavity. It will also outline the inside of the fallopian tubes and show any areas of obstruction or “blocked tubes”. Unfortunately, the HSG cannot show scarring or damage to the outside of the tubes or ovaries and is not helpful in diagnosing endometriosis.

**How is it done?** The HSG is performed in a radiology center shortly after the end of a menstrual period. The vagina and cervix are cleansed with an iodine-based antiseptic solution (Betadine) to prevent infection. A small rubber catheter is inserted into the cervix and a dye solution (also iodine-based) is injected into the uterine cavity. An x-ray is then taken to see the outline of the dye solution inside the uterus and fallopian tubes.

**Is the HSG painful?** This test is usually associated with temporary mild cramping when the dye is injected into the uterus but is not generally painful. Many women have no discomfort at all. The actual dye injection usually lasts only 3-5 minutes, and the great majority of our patients tell us that the procedure is not associated with significant discomfort.

**Are there any complications or side effects?** Any procedure performed inside the uterus may be associated with mild cramping or bleeding for several days. Some women will experience a heavier menstrual period the first cycle after an HSG. Pelvic infections can occur after HSG but are very uncommon. You may experience an oily vaginal discharge for 1-2 days as the dye solution is expelled. Rare complications include reactions to the dye, especially in women who are allergic to iodine. In general, the HSG is considered a low-risk medical procedure.

**How is the HSG different from laparoscopy?** The HSG allows you to see only where the dye flows, which includes the inside lining of the uterus and the fallopian tubes. A *laparoscopy* examination allows visualization of the outside of the uterus, fallopian tubes, and ovaries. Laparoscopy is the only way to diagnose scar tissue (adhesions) and endometriosis of the outside of the tubes and ovaries. Both tests are complementary to each other in that they give different information about the same anatomic areas.

**Are there any alternatives to the HSG?** Another procedure called *Hysteroscopy* can also be performed to evaluate the inside of the uterus. Hysteroscopy is the insertion of a small endoscope through the cervix into the uterine cavity for direct visualization. Hysteroscopy can be done in the office under local anesthesia or in the outpatient surgery center at the same time as a laparoscopy. Although hysteroscopy gives you the same or more information about the inside of the uterus as the HSG, it does not give any information about the patency of the fallopian tubes. A *Sonohysterogram* is another procedure often used to evaluate the inside of the uterus. This procedure involves the injection of sterile saline solution into the uterus during a vaginal ultrasound examination. Although useful for evaluating the uterine cavity, this procedure also does not give any information on the fallopian tubes.

**How do I schedule the hysterosalpingogram?** If you call us as soon as your menstrual period starts, we can usually schedule the test for you within the next two weeks. At the time we schedule the procedure for you, we will give you any special instructions and be happy to answer questions.

**Will the HSG interfere with pregnancy during the same cycle?** The test is done shortly after the menstrual period to ensure that it does not interfere with a current pregnancy. Pregnancy can occur normally in the same cycle the procedure is done. In fact, several studies have shown a slightly higher pregnancy rate 1-2 months after the hysterosalpingogram, presumably due to clearing the mucus or other material from the fallopian tubes.

**What can I do after the procedure?** You can usually resume all normal activities immediately after the HSG. You may use tampons or take a bath or shower as desired. It is normal to have light vaginal bleeding for several days after an HSG. We recommend avoiding intercourse for 2 days to prevent infections after the test. You should call the office if any unusual symptoms occur, including severe pain in the abdomen, fever of more than 100°, etc. Tylenol or Advil may be taken for cramps if necessary.