



# Fact Sheet

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The Patient Education Website of the American Society for Reproductive Medicine

## Hysterosalpingogram (HSG)

### **What is a hysterosalpingogram (HSG)?**

A hysterosalpingogram or HSG is an x-ray procedure performed to determine whether the fallopian tubes are patent (open) and to see if the shape of the uterine cavity is normal. An HSG is an outpatient procedure that usually takes less than 30 minutes to perform. It is usually done after the menstrual period has ended, but before ovulation, to prevent interference with an early pregnancy.

### **How is a hysterosalpingogram done?**

A woman is positioned under a fluoroscope (a real-time x-ray imager) on a table. The gynecologist or radiologist then examines her uterus and places a speculum in her vagina. Her cervix is cleaned, and a device (cannula) is placed into the opening of the cervix. The doctor then gently fills the uterus with a liquid containing iodine (contrast) through the cannula. The contrast then enters the tubes, outlines the length of the tubes, and spills out their ends if they are open. Also abnormalities within the uterine cavity may be detected by the doctor observing the x-ray images. The HSG procedure is not designed to evaluate the ovaries or diagnose endometriosis. Frequently, side views of the uterus and tubes are obtained by having the woman change her position on the table. After the HSG, a woman can immediately resume normal activities, although some doctors ask that she refrain from intercourse for a few days.

### **Is it uncomfortable?**

An HSG usually causes mild or moderate uterine cramping for about five to ten minutes; however, some women may experience cramps for several hours. The symptoms can be greatly reduced by taking medications used for menstrual cramps. Women should be prepared to have a family member or friend drive them home after the procedure.

### **Does a hysterosalpingogram enhance fertility?**

It is controversial whether this procedure enhances fertility. Some studies indicate a slight increase in fertility lasting about three months after a normal HSG. Most doctors perform the HSG only for diagnostic reasons.

### **What are the risks and complications of HSG?**

- An HSG is considered a very safe procedure. However, there is a set of recognized complications, some serious, which occur less than 1% of the time.
- Infection - The most common serious problem with HSG is pelvic infection. This usually occurs when a woman has previous tubal disease. In rare cases, infection can damage the fallopian tubes or necessitate their removal. A woman should call her doctor if she experiences increasing pain or a fever within one to two days of the HSG.
- Fainting - Rarely, the woman may get light-headed during or shortly after the procedure.

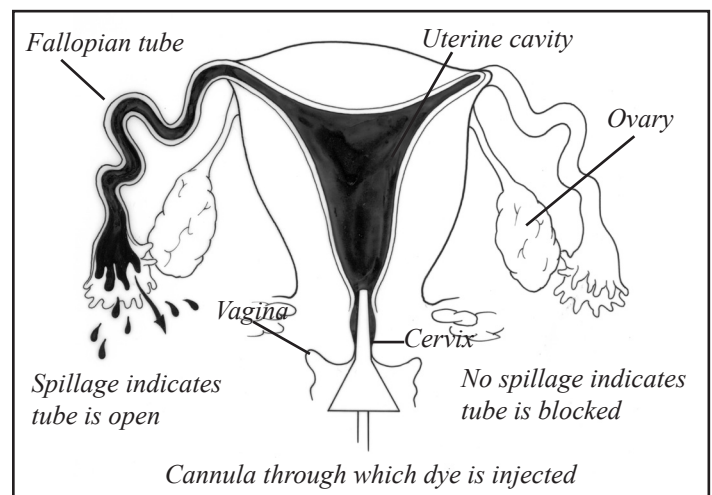
- Radiation Exposure - Radiation exposure from a HSG is very low, less than with a kidney or bowel study, and there have been no demonstrated ill effects from this radiation, even if conception occurs later the same month. The HSG should not be done if pregnancy is suspected.
- Iodine Allergy - Rarely, a woman may have an allergy to the iodine contrast used in an HSG. A woman should inform her doctor if she is allergic to iodine, intravenous contrast dyes, or seafood. Women who are allergic to iodine should have the HSG procedure performed without an iodine containing contrast solution. If a woman experiences a rash, itching, or swelling after the procedure, she should contact her doctor.
- Spotting - Spotting commonly occurs for one to two days after the HSG. Unless instructed otherwise, a woman should notify her doctor if she experiences heavy bleeding after the HSG.

### **What is the next step if my tubes are blocked?**

If your tubes are blocked your doctor will likely recommend either a surgical procedure to directly view the tubes (laparoscopy) or bypass the tubes and perform in vitro fertilization (IVF). This is a complex decision that should be discussed with your doctor.

### **Are there other options to evaluate tubal patency?**

Laparoscopy can also determine if tubes are open, using a procedure called chromoperturbation. An alternative procedure to evaluate tubal patency is a sonohysterosalpingogram. For this procedure, a catheter (narrow tube) is placed in the uterus through the vagina and saline and air are injected. In women that have open fallopian tubes, tiny air bubbles can be seen going through the fallopian tubes during the ultrasound. Nevertheless, HSG remains the most commonly performed procedure to evaluate tubal patency.



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