What is saline infusion sonohysterogram (SHG)?
Saline infusion sonohysterography (SIS or SHG) is a procedure to evaluate the uterus and the shape of the uterine cavity. SHG uses ultrasound and sterile fluid to show the uterus and endometrial (uterine lining) cavity. The ovaries are also seen at the time of SHG. The purpose is to detect any abnormalities.

Why is SHG performed?
SHG can be done to investigate conditions such as abnormal uterine bleeding, infertility, and recurrent miscarriage. SHG can also be performed to see the structure of the uterus. This may be done in women with congenital abnormalities (birth defects) of the uterus, before and after surgery on the uterus, or to detect problems that appear later in life such as polyps or suspected scar tissue inside the uterus. SHG may also help check uterine abnormalities found during a routine ultrasound.

SHG should not be performed in women who are pregnant or who are suspected to be pregnant. SHG should also not be performed in women with an active pelvic infection.

How is SHG performed?
SHG is usually done after the menstrual period finishes. In women not menstruating (such as those on medications suppressing the menstrual cycle, postmenopausal women, etc.), it may be done at any time. The procedure begins with an ultrasound examination using a probe placed in the vagina.

Next, a speculum is introduced and a narrow catheter is placed in the vagina, through the cervix, and into the uterine cavity. The ultrasound examination is continued while sterile saline (salt water) is put into the uterus. The saline solution fills the uterus, helping to outline the uterine walls and cavity. This shows abnormalities such as fibroids, polyps, or scar tissue inside the uterus.

What are the risks and complications?
SHG is a very safe procedure and usually is performed without incident. Serious complications are rare. The most common serious complication with SHG is pelvic infection. However, this occurs less than 1% of the time and usually occurs when a woman also has a block or infection of the fallopian tubes.

SHG may also cause cramping, spotting, and vaginal discharge. Some women have cramping for several hours after the procedure. It is often recommended to take a medication such as ibuprofen before this test. Some doctors may also prescribe stronger pain medication and/or antibiotics before the procedure. You should call your doctor if you experience pain or fever in the 1–2 days after the SHG.

Images of SHG. The uterine wall is seen once saline is infused into the uterine cavity. Saline in the uterine cavity looks like black or “empty” space. A fibroid (benign tumor) can be seen in the uterine cavity in the image on top.