# **Reproductive Facts**

Patient fact sheet developed by the American Society for Reproductive Medicine

## Conditions Treated with Surgery on the Fallopian Tubes and Ovaries

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Surgery can be used to treat problems with the ovaries or fallopian tubes, such as cysts, endometriosis, or infections. This type of surgery can be "minimally invasive" or "open." Minimally invasive surgery (also called laparoscopy) is done with a small telescope attached to a camera (a laparoscope).



The laparoscope is inserted through the belly button and makes it possible for the surgeon to see inside the belly. With laparoscopy, there is usually less pain after the procedure, less chance of fever, and a shorter hospital stay than open surgery. Open surgery involves making a larger incision in the belly, and the recovery time can be longer. Not all patients are best suited for a minimally invasive approach. Prior surgery or scar tissue, body weight, and goals of surgery, all influence which approach may be best.

#### Ovarian cysts: Reasons you may need surgery

A cyst is a collection of fluid or other substances in tissue. Only a very small percentage of these cysts are cancerous (malignant); most cysts are not cancerous (benign). Common types of benign cysts include follicular cysts, corpus luteum cysts, endometriomas, dermoid cysts, serous cysts, mucinous cysts, and fibromas.

The most common reason to have surgery on the ovaries or fallopian tubes is an ovarian cyst or ovariantubal mass.

#### Follicular cysts and corpus luteum cysts

Follicles are the areas in the ovaries where an egg develops in preparation for ovulation. On rare occasions, an enlarged cyst can form in this area and grow to the size of a tennis ball. This can be painful and cause an ovary to twist and turn on its blood supply (ovarian torsion). Corpus luteum cysts form after ovulation. Like follicular cysts, corpus luteum cysts can grow large, causing pain and discomfort.



### **Dermoid cysts**

Dermoid cysts are non-cancerous tumors that are made up of different kinds of tissues—such as teeth, hair, skin, bone, and thyroid tissue. Dermoid cysts can grow anywhere in the body, but they are often found in the ovaries. These tumors can cause the ovary to twist and can be very painful. Dermoid cysts may grow quite large, and it's generally recommended that they should be surgically removed.

#### **Endometriomas**

Endometriomas are cysts that form in the ovaries made up of the same kind of tissue that grows in the uterus (called endometrium or endometrial tissues). s. These cysts fill with blood as they grow. The blood turns into a dark brown fluid, so endometriomas are sometimes called "chocolate cysts." Endometriomas can cause pain and discomfort,

as well as scarring and damage to the ovaries. Having endometriomas may make it more difficult to become pregnant.



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#### Para-ovarian or paratubal cysts

Para-ovarian or paratubal cysts form when structures next to the fallopian tubes fill with fluid. In rare cases, they can become large and can cause the tubes or ovaries to twist, which can cause pain and infection.

### What You Should Know About Surgery On Your Ovaries And Tubes

#### Removing ovarian cysts

A person's age, symptoms, family history and appearance of the cyst will help your doctor determine whether surgery is recommended. In most cases, the surgeon will remove the whole cyst to decrease the chances that it grows back. In younger patients who desire future fertility the goal is to leave as much of the ovary as possible. This is particularly important with surgery to treat infertility.

#### Unblocking or removing fallopian tubes

Fallopian tubes carry the egg from the ovary to the uterus. Infections, diseases and sometimes surgery can damage one or both of the fallopian tubes, causing them to become scarred or blocked. Sexually transmitted infections, appendicitis, damage to the intestines, and endometriosis are examples of conditions that can damage the fallopian tubes. When one of the fallopian tubes is very badly damaged, it may become completely blocked and filled with fluid. This is called a hydrosalpinx.

#### Hydrosalpinx



Any damage to the fallopian tubes that prevents an embryo (fertilized egg) from traveling to the uterus may cause infertility. Surgery is sometimes performed to repair or open the fallopian tubes. After tubal surgery however, there is an increased chance of tubal (ectopic) pregnancy. In cases of severely damaged or absent fallopian tubes, in vitro fertilization (IVF) may be the best treatment option. The chances of pregnancy with IVF are significantly improved when a hydrosalpinx is either removed or disconnected from the uterus.

#### "Ovarian drilling" for PCOS

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Polycystic ovary syndrome (PCOS) is a common cause of infertility in women. Women with PCOS may have more than the typical number of follicles on their ovaries. These ovaries are called "polycystic," but that does not mean they have cysts in them. Polycystic ovaries do not regularly ovulate and produce too much androgen.

Androgens are the hormones responsible for excess hair growth on the chin, face, and chest. Many women with PCOS may also have difficulty managing their weight, have acne, and may be more at risk for diabetes. Although medications are usually used to treat PCOS, a minimallyinvasivesurgicalprocedure called "ovariandrilling" can sometimes help ovulation occur to become pregnant.

During the procedure, the doctor may use a heated needle or laser to create a few small tunnels in the ovaries. It's not well understood why this improves ovulation and the chances of pregnancy. The effects may only be short-term, and there is a risk for scar tissue to develop on or around the ovaries after this surgery. The surgery may also reduce the egg count. In rare cases, ovarian drilling may cause the ovaries to stop functioning. Medications are usually the first and best option to treat PCOS, so ovarian drilling is usually only recommended in severe cases of PCOS that do not respond to medications.

#### **Risks of adnexal surgery**

With any surgery, there is a risk of pain, bleeding, infection, and the development of adhesions (internal scar tissue). Other risks can include damage to the bladder, ureters, or intestines, but these are very rare. It's important to discuss the goals, benefits, alternatives, and risks of surgery before deciding on the best treatment path.