## **Cystectomy and Ovarian Cysts**

Ovarian cysts are sacs filled with fluids or pockets located on or in an ovary. In some cases, these cysts need to be removed surgically.

## **Types of Cysts**

Ovarian cysts are quite common in women during their childbearing years. A woman can develop one cyst or many cysts. Ovarian cysts can vary in size.

There are different types of ovarian cysts. Most cysts are *benign* (not cancerous). Rarely, a few cysts may turn out to be *malignant* (cancerous). For this reason, all cysts should be checked by your health care provider.

#### 1) Functional Cysts

The most common type of ovarian cyst is called a *functional cyst* because it forms as a result of *ovulation*, a normal function. Each month, an egg, encased in a sac called a *follicle*, grows inside the ovary. The egg is released from the ovary at the middle of the menstrual cycle.

There are two types of functional cysts:

- 1. Follicle cysts form when the follicle does not open to release the egg.
- 2. Corpus luteum cysts form when the follicle that held the egg seals off after the egg is released. (These are common after infertility treatments or where a Mirena is in insitu.)

Both types of cysts usually cause no symptoms or only mild ones. They go away in 6-8 weeks.

#### 2) Dermoid Cysts

Dermoid cysts form from a type of cell capable of developing into different kinds of tissue, such as skin, hair, fat, and teeth. Dermoid cysts may be present from birth but grow during a woman's reproductive years. These cysts may be found on one or both ovaries. Dermoid cysts often are small and may not cause symptoms. If they become large, they may cause pain.

#### 3) Cystadenomas

Cystadenomas are cysts that develop from cells on the outer surface of the ovary. Sometimes they are filled with a watery fluid or a thick, sticky gel. They usually are benign, but they can grow very large and cause pain.

#### 4) Endometriomas

Endometriomas are ovarian cysts that form as a result of *endometriosis*. In this condition, endometrial tissue—tissue that usually lines the uterus—grows in areas outside of the uterus, such as the ovaries. This tissue responds to monthly changes in *hormones*. Eventually, an endometrioma may form as the endometrial tissue continues to bleed with each menstrual cycle. These cysts are sometimes called "chocolate cysts" because they are filled with dark, reddish-brown blood.

#### 5) Malignant Cysts

These are cancerous cysts and can be primary in origin or the cancer could have spread there from another organ. Treatment is usually undertaken by a specialist in Ovarian Cancer.

## **Symptoms**

Most ovarian cysts are small and do not cause symptoms. Some cysts may cause a dull or sharp ache in the abdomen and pain during certain activities. Larger cysts may cause torsion (twisting) of the ovary that causes pain. Cysts that bleed or rupture (burst) may lead to serious problems requiring prompt treatment.

In rare cases, a cyst may be cancerous. In its early stages, ovarian cancer often has no symptoms, so you should be aware of its warning signs. Be sure to offer if you have any of these signs. Ovarian cancer is very rare in young women, but the risk increases as a woman ages.

### Warning Signs of Cancer of the Ovary

These are very non-specific are are therefore largely unreliable:- Feeling tired, Bloating, Pelvic or abdominal pain, Indigestion, Anorexia, Back pain, Enlargement or swelling of the abdomen, Inability to eat normally, Unexplained weight lossand Urinary frequency or Incontinence.

### **Diagnosis**

An ovarian cyst may be found during a routine *pelvic exam*. If your General Practitioner finds an enlarged ovary, tests may be recommended to provide more information:

- Vaginal ultrasound—This procedure uses sound waves to create pictures of the internal organs
  that can be viewed on a screen. For this test, a slender instrument called a transducer is placed in
  the vagina. The views created by the sound waves show the shape, size, location, and makeup of
  the cyst.
- Blood tests—If you are past menopause, in addition to an ultrasound exam, you may be given a test that measures the amount of a substance called CA 125 in your blood. An increased CA 125 level may be a sign of ovarian cancer in women past menopause. In premenopausal women, an increased CA 125 level can be caused by many other conditions besides cancer. Therefore, this test is not a good indicator of ovarian cancer in premenopausal women.
- Laparoscopy—In this type of surgery, a laparoscope—a thin tube with a camera—is inserted into the abdomen to view the pelvic organs. Laparoscopy also can be used to treat cysts.

#### **Ovarian Cystectomy**

When might an ovarian cystectomy be performed? I might recommend surgery if:

- the cyst does not go away after several periods
- the cyst has grown larger over several menstrual cycles
- the cyst is causing you pain
- the cyst is contributing to fertility problems
- the cyst starts bleeding
- the cyst shows signs of being cancerous.

Having ovarian cysts does not lead automatically to surgery. In most cases, ovarian cysts do not cause any problems and go away on their own. I might also choose to prescribe birth control pills to prevent ovulation. In some cases, another treatment can take the form of removing the fluids from the sac using a needle. Whether Surgery is necessary and what type of surgery is required is based on the scan appearance of the cyst, its size,age of patient and blood tests.

### **Having a Cystectomy**

What is the procedure for having an ovarian cystectomy? You will usually be placed under general anesthesia for an operation that will last up to 60 minutes. Usually, surgery is done laparoscopically. Laparoscopy is a less invasive procedure than conventional surgery. If you have laparoscopic surgery, you will recover more quickly than if you were to have conventional, open surgery.

Unfortunately, I may not know until direct visualisation at surgery how much of a problem the cyst really is. If the ovarian cyst has affected your ovary too much, the whole ovary may have to be removed.

In addition, a biopsy will be performed on the cyst to check for cancer.

#### **Side Effects of an Ovarian Cystectomy**

Possible side effects of a cystectomy are similar to general complications related to a laparscopy which is listed at the end of the brochure. Patients may experience problems with anesthesia, excessive bleeding or infection. In addition, you may need to take medication after the surgery to help control pain. It is important to understand the side effects of any operation before you go into surgery. Given we are operating around and near your fallopian tube there is a small chance of scarring in that area that may affect fertility. A cystectomy will not remove your ovaries, ensuring the production of important hormones such as estrogen continues. A cystectomy will not remove your uterus, which means you can still carry a baby. Since a cystectomy does not require the removal of the uterus or ovaries, a cystectomy will not increase the risks of osteoporosis and will not induce early menopause. Therefore, patients will not have to consider hormonal replacement treatments. If however there was excessive bleeding, suspuscion of malignancy or difficult access the operation may be converted to a Laparotomy to allow more access the pelvis, control bleeding or sometime remove the whole ovary. This would then necessitate a longer hospital stay and a more prolonged recovery.

### Recovery from a Cystectomy

If you have laparoscopic surgery, you can expect to be discharged either that day or early the next morning. She should be fully recovered in less than four weeks.

#### **Cystectomy: Prevention**

Ovarian cysts are not usually preventable unless they are functional in origin (ie they are related to ovulation). In this scenario sometimes going on the oral contraceptive pill may prevent future recurrences of these cysts. Having regular pelvic exams can help pinpoint a possible problem early so that the problem might be attacked and resolved without needing surgery.

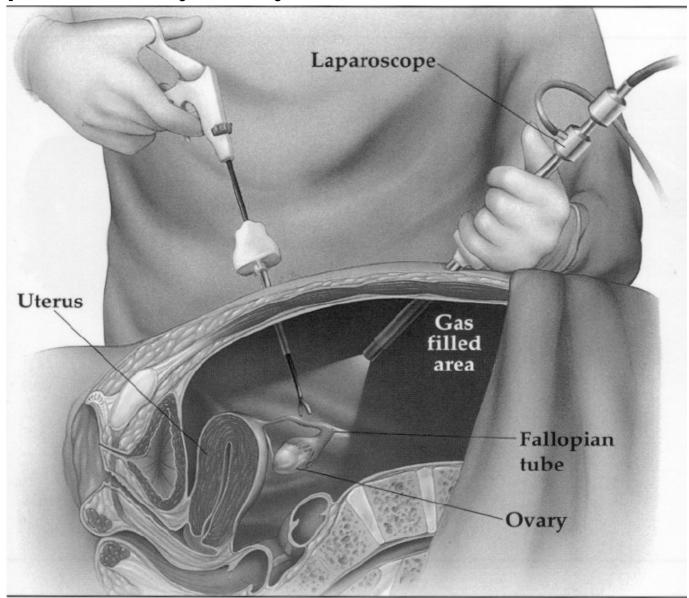
### The Procedure of Laparscopic Ovarian Cystectomy or OOphorectomy

The laparoscope itself is a small instrument that is introduced through the umbilicus (navel) by a small incision, its approximate thickness is that of a pen. It is through this telescope that we are able to visualize the pelvis with some detail. Further small incisions are usually made in the pubic hairline or just above to allow us to introduce other instruments to move around some of the organs to allow us to have a better view. A moderate amount of gas is also inserted into the abdomen to allow us to obtain a better more optimal view and minimise the risk to surrounding organs.

If the procedure is much more serious than originally expected, then you would be informed of this following the operation to better plan how you would like to proceed.

### Associated Procedures

Often associated with the laparoscopy, a small instrument is inserted into the uterus to allow us to move the uterus about during the course of the operation. This sometimes does cause some vaginal bleeding after your procedure but it is usually not heavy. At the same time, often the hysteroscopy can be performed as well as a diagnostic curettage.



Laparoscopic Procedure

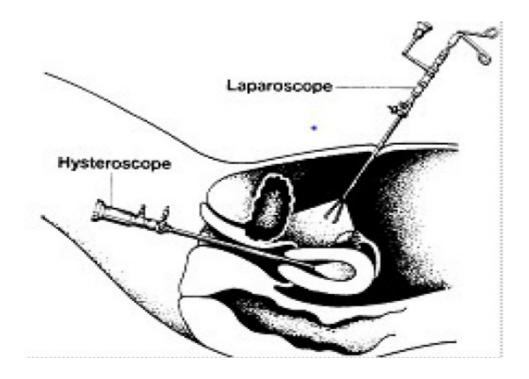
Again, these may cause some period like cramping and a small amount of bleeding. Equally, a dye study can also be performed where blue dye is passed through the cervix into the uterus and hopefully out through the fallopian tubes. This is usually utilized to establish whether your tubes are patent or not.

All of this is usually performed as a day procedure or overnight stay under general anaesthetic. This of course means that you would need to be there just prior to the start of the operation fasted for 6 hours prior and would need to stay for a number of hours afterwards. The amount of time allocated for you to stay after the operation depends on your degree of discomfort afterwards and any effects you have from the anaesthetic.

#### Post Operatively

It is essential that someone collect you from the hospital and be attendance with you for 24 hours following. You are NOT under any circumstances allowed to take public transport home.

Equally, for the 24 hours following, you should not drive yourself or perform any other tasks that may cause injury to yourself. It is very common to experience some shoulder or neck pain and this relates to the gas that was placed in your stomach to allow us to better visualize the pelvis. The gas irritates the diaphragm which in fact has the same nerve supply as the tip of your shoulder and the brain perceives as it is coming from the shoulder rather than your diaphragm. You will therefore require some pain killers when you return home, the most appropriate would be Panadeine or Panadol and should at any time the pain become severe, then you should contact me.



#### Risks?

As with any operation, there are a number of risks.

Firstly, these may include an adverse reaction to the anaesthetic which may represent increased sensitivity to the usual dose of drugs or an allergic reaction. Also, there may be some nausea and vomiting due to the anaesthetic after the procedure has finished. As far as the operation is concerned, there is the risk of bleeding and infection in both the wound or inside the abdomen itself. There is also the very rare risk of damage to internal organs such as bowel, bladder or ureter (the tube that runs from the kidneys to the bladder). If this were to occur, then further surgery would be required by a formal incision into the abdomen which would require a longer hospital stay.

You may also experience some numbness around the incision site initially and also some bruising both of which are relatively normal. Puncture of major blood vessels within the abdomen also can occur but also are extremely rare. This would equally necessitate further surgery. Obviously all precautions are undertaken to prevent any of these complications from occurring and of course you can reduce the risk further by not smoking prior to surgery and ensuing that you are in the best possible physical state.

#### Follow Up

Post-operatively, you will experience the discomfort or pain as I outlined earlier. You will have a stitch in the small abdominal wounds that you will be informed about as to whether it will require removal or not. You should be able to resume activity within your pain limitation the following day and usually you will require a week off work depending on the vocation which you undertake. Normal sexual activity can be resumed when bleeding and the discomfort has settled and you feel well enough yourself. I would usually make it fairly clear when I would like to see you again for follow up advice, however, should you have any concerns in the interim, you should contact me earlier.