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## **Ovarian Cysts: Patient Information**

Ovarian cysts are fluid-filled sac in or on an ovary. Ovarian cysts are very common and occur in two types: functional and abnormal. The ovary normally produces functional cysts every month in reproductive aged women. Multiple physiologic cysts are produced each month with one dominant follicle larger than the rest. These functional cysts grow and disintegrate on their own each month. Occasionally, a functional cyst will swell or have excess fluid or blood that remains, ruptures and may cause symptoms of pelvic pain. Abnormal cysts occur from abnormal cell growth. Most abnormal ovarian cysts are benign or, not cancer. Less than <2% of all Ovarian cyst are cancerous. The most common cysts are dermoid cysts and endometriomas.

Ovarian cysts can often occur with no symptoms at all. Some common symptoms include: pelvic or abdominal pain, painless swelling in the lower abdomen, feeling pressure in the pelvis, bladder pressure, changes in your menstrual cycle or nausea. If an ovarian cyst ruptures or twists, it could cause severe abdominal pain, nausea and vomiting. If an ovarian cyst is suspected by history or pelvic examination a pelvic ultrasound will be ordered. Most simple cysts will resolve on their own and a repeat ultrasound scheduled after your next menstrual cycle in one to 3 months. If you have excessive symptoms, a laparoscopy to remove the cyst will be recommended. Persistent ovarian cysts, complex ovarian cysts and ovarian cyst found in the postmenopausal period are usually surgically removed. Complex findings on ultrasound include: solid nodular or papillary components, thick septations, bilaterality, blood flow or free fluid.

Removal of ovarian cyst by laparoscopy involves taking the cyst off of the ovary and leaving the ovary intact; otherwise called an ovarian cystectomy. Particularly if complex, the ovarian cyst wall will be sent for tissue examination by pathology and the final diagnoses available at your postoperative visit. Although there is no definite way to prevent the growth of ovarian cysts, patients should have regular GYN examinations and consider ovarian suppression with hormones If they have had a dermoid cyst or an endometrioma. Patients with recurrent and repetitive production of functional cysts in the ovaries will benefit from chronic ovarian cysts suppression by the use of continuous birth control pills.

The diagnostic tests (CA-125)and treatment options for patients with an ovarian cyst is individualize by the findings on ultrasound, the clinical symptoms, age, reproductive goals, and the level of concern regarding complications or suspicion of neoplasm. Some ovarian cysts are found to be actually an adnexal or a tubal cyst at the time of surgery. Please refer to the patient education handout on laparoscopy.

## Making a decision to observe or undergo surgery:

Depending upon the persons age, fertility goals, symptoms, findings on exam, laboratory testing, ultrasonography and possible MRI, an individual decision will be made regarding the most likely diagnoses, management options and therapeutic options. Benign ovarian disease can be treated by ovarian cystectomy or complete ovarian removal usually including tube on the same side. For postmenopausal women with benign ovarian neoplasms, a bilateral tube and ovary removal will be recommended. For premenopausal women with benign ovarian disease, ovarian cystectomy is recommended unless the ovary cannot be salvaged or there is insufficient viable tissue. Other indications for oophorectomy include: Prophylaxis secondary to genetic predisposition, torsion with necrosis, malignancy, abscess unresponsive to antibiotics or definitive treatment for endometriosis.

Women who are undergoing a hysterectomy for uterine reasons have the option of removing the tubes and ovaries at the same procedure. The removal of normal ovaries is considered prophylactic. An individual decision must be made regarding the loss of ovarian function, risk of future ovarian surgery, reduction in risk of developing ovarian cancer, reduction in risk of breast cancer and reduction in risk of tubal surgery.

Most ovarian surgeries for benign disease can be performed laparoscopically. The major advantage includes: a smaller incision size, faster recovery, shorter hospital stay, less adhesion formation, less febrile morbidity and urine infection and less postoperative pain. The disadvantage for a laparoscopic procedure is the potential for spill of cancer cells if the mass is malignant. Preoperative tests cannot absolutely predict which mass is malignant. Statistically, an unexpected ovarian cancer is found in only 0.04% of laparoscopic ovarian cyst surgery. Presently, even complex cysts are being evaluated with the laparoscope if the risk for malignancy is felt to be low. As with all surgical procedures, an evaluation will be made at the time of surgery to decide on the best approach and procedure in the best interest of the patient's priorities, health, safety and desired outcome. The preliminary evaluation at the time of surgery would need to be confirmed by the final pathology report.

Complications from surgery include the risk of bleeding, infection, bowel or ureteral injury and spillage of malignant cells. Rarely, a small bowel obstruction or anesthetic complication can occur after a laparoscopic procedure. Occasionally, a laparoscopic procedure would need to be converted to a open laparotomy. Please refer to the laparoscopy patient information and consent forms.

CT scans are occasionally needed to evaluate adnexal masses. CT are not recommended if the patient is pregnant and patients can alternatively use noncontrast MRI.

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