



## **PROCEDURE EDUCATION LITERATURE**

We recommend that you read this handout carefully in order to prepare yourself or family members for the proposed procedure. In doing so, you will benefit both the outcome and safety of the procedure. *If you still have any questions or concerns, we strongly encourage you to contact our office prior to your procedure so that we may clarify any pertinent issues. "An educated patient is the best patient."*

## **SURGERY FOR ECTOPIC PREGNANCY**

### **Definition**

Surgical – treatment of disease or condition by an operation

Ectopic pregnancy – a pregnancy that exists outside of the normal location within the uterine cavity

Ectopic pregnancy is a pregnancy outside of the normal *intrauterine* location, most often in the fallopian tube and rarely in the abdominal cavity or cervix. This happens when a fertilized egg establishes itself outside of the uterus and begins to develop there. Ectopic pregnancy is a serious condition and can quickly become life-threatening. Ectopic pregnancy is estimated to occur in between 1% and 2% of all pregnancies and is the leading cause of pregnancy-related death in the first trimester of pregnancy. Ectopic pregnancies cannot result in the birth of an infant.

Ectopic pregnancy occurs when the passage of the fertilized egg (ovum) through the fallopian tube to the cavity of the uterus is blocked or delayed. Risk factors predisposing a woman to ectopic pregnancy include:

- History of pelvic inflammatory disease (PID)
- History of salpingitis (infection within the fallopian tube)
- Chlamydia and gonorrhea
- Previous ectopic pregnancy
- Cigarette smoking
- Tubal sterilization
- Tubal sterilization reversal
- Previous pelvic surgery
- Use of an intrauterine device (IUD) at the time of conception
- Fertility drugs and assisted reproduction procedures
- Congenital abnormalities of the fallopian tube
- Administration of hormones to prevent pregnancy (emergency contraception)

Women with an ectopic pregnancy will sometimes experience symptoms that are typical of early pregnancy: nausea, vomiting, breast tenderness, and the absence of a menstrual period. The most common symptoms of ectopic pregnancy are mild, cramping abdominal or pelvic pain, vaginal bleeding, and absence of a menstrual period. As an ectopic pregnancy grows larger, it can cause bleeding from the end of the fallopian tube or burst (rupture) through the wall of the tube. Sudden severe pelvic pain, pain in the shoulder or neck, urge to have a bowel movement, feeling dizzy or fainting, and a rapid heartbeat are all symptoms associated with the rupture of an ectopic pregnancy.





A woman with a suspected ectopic pregnancy will have several tests performed to determine if the pregnancy is within or outside of the uterus. Blood tests to measure levels of human chorionic gonadotrophin (hCG; a pregnancy hormone), progesterone, and blood counts may be performed on several occasions to observe for abnormal changes. Ultrasound examination of the uterus, fallopian tubes, and pelvis will be performed, usually through the vagina. If the testing is not able to distinguish between a miscarriage and an ectopic pregnancy, your doctor may recommend a dilation and curettage to look for pregnancy tissue in the uterus. If no pregnancy tissue is found, then the diagnosis of an ectopic pregnancy is presumed.

If it is determined that you have an ectopic pregnancy, the pregnancy must be removed to prevent endangering the life of the woman. A tubal pregnancy that has not ruptured or begun to bleed into the abdomen may be treated with either *surgical* or *medical (non-surgical) management*. Alternatively, if you have a tubal pregnancy that has grown too large for non-surgical management, but have no symptoms of internal bleeding, a non-emergent surgery may be performed. However, if you have a ruptured tubal pregnancy, you are faced with a potentially life-threatening condition and will need emergency surgery.

After carefully evaluating the results of your lab testing and ultrasound, your doctor will discuss the available medical and surgical options for treatment. The loss of a pregnancy is difficult in any circumstance; however, it is important to keep your health and well being in mind when making treatment decisions.

#### **Preparation**

Once the diagnosis of ectopic pregnancy requiring surgery has been established, preparation will begin for surgery. You are instructed not to eat or drink anything after this decision, unless told otherwise by your doctor or anesthesiologist. Fluids and sometimes blood will be given through intravenous (IV) lines. Pain medications may also be given through the IV. Depending on your condition, surgery may be performed immediately or within several hours. You will be watched closely for any change in your condition while preparations are made for your surgery.

#### **Procedure**

The goal of emergency surgery is to quickly and efficiently locate and control the loss of blood and prevent further deterioration in the patient's condition. This can be accomplished with either laparotomy (a surgical incision to allow direct access to the pelvic organs) or laparoscopy (an illuminated tubular instrument passed through a small incision). The method of access will be determined by your condition, availability of operating instruments, and your doctor's preference.

In the case of a ruptured tubal pregnancy, once the bleeding had been controlled, the pregnancy tissue will be located and removed, followed by repair of damage to surrounding tissue. Often this involves removal of part or all of the damaged fallopian tube and occasionally the ovary. If your blood loss and resulting anemia are significant, blood transfusion may be given.

When non-emergency surgery is performed for an unruptured tubal pregnancy, conservative treatment (sparing the fallopian tube) can be used, especially in the woman who desires to maintain fertility. A variety of techniques to open the tube and remove the pregnancy tissue have been proven effective. The technique used is dependant on the location and size of the pregnancy tissue.

#### **Post Procedure**

You will be in the recovery room for a short time before being sent to your hospital bed. Many patients usually will stay overnight in the hospital, although it is possible to have a surgery for ectopic pregnancy as an ambulatory procedure. There may be some discomfort around the incision sites, within the vagina, and on the lower abdomen. There will be a small dressing over the abdominal incision site(s), which is to remain until you are instructed to remove it.

There may be small blood staining on the wound dressing. If the dressing becomes soaked, or you see active blood oozing, please contact us immediately. You may shower two days after surgery, but no bathing or swimming (unless otherwise instructed). It is normal to have some bloody discharge from the vagina for a day or two. If you have significant bleeding, you should call our office. We ask that you refrain from any strenuous activity or heavy lifting until your follow up office visit. Every patient has some degree of swelling and bruising, and it is not possible to predict in whom this might be minimal or significant.

We encourage you to take at least one week off from work and perhaps more if your occupation requires strenuous activity or heavy lifting. In the first 48 hours, it is to your advantage to minimize activity and to often rest in a lying down position. Periodic walking is encouraged. Some patients have almost no discomfort while others are somewhat uncomfortable for a few days to weeks. Severe pain is unlikely but possible. We may provide you with a prescription for pain medication to alleviate most of the discomfort and iron supplements if you are anemic. Take this medication as prescribed and as needed. If any side effects occur, contact our office





immediately.

If you have Rh-negative blood, you will be given Rh immunoglobulin (Rhogam®) after your surgery. Blood tests will be collected every few days to verify the pregnancy hormone hCG falls to zero.

***\*You must refrain from any strenuous activity or heavy lifting until we tell you otherwise. Sexual activity of any sort is absolutely prohibited (usually four to six weeks) until we tell you that you may resume.***

#### **Expectations of Outcome**

A small number of women who have conservative surgical management will have a persistent ectopic pregnancy. Careful observation of symptoms and blood hCG levels can help make this diagnosis. Persistent ectopic pregnancy can be treated surgically or medically, depending on the circumstances, symptoms, and blood hCG levels.

Women who have had surgery for ectopic pregnancy are often able to have a normal pregnancy. Between 60% and 80% of women who have had one ectopic pregnancy and have both fallopian tubes will have a normal pregnancy, while slightly more than 40% with one remaining tube will have a normal pregnancy. If, however, the ectopic pregnancy is a woman's first pregnancy, her chance of becoming pregnant again is much lower.

A history of ectopic pregnancy is a risk factor for subsequent ectopic pregnancy. Between one of three and one of four pregnancies after an ectopic will be a repeat ectopic pregnancy. For this reason, if you become pregnant or have the symptoms of pregnancy, you must see your doctor to confirm an intrauterine pregnancy.

#### **Possible Complications of the Procedure**

All surgical procedures, regardless of complexity or time, can be associated with unforeseen problems. They may be immediate or even quite delayed in presentation. While we have discussed these and possibly others in your consultation, we would like you to have a list so that you may ask questions if you are still concerned. Aside from anesthesia complications, it is important that every patient be made aware of all possible outcomes, which may include, but are not limited to:

- **Persistent Ectopic Pregnancy:** A minority of women who have conservative surgical treatment and sparing of the fallopian tube will have persistent ectopic pregnancy. For this reason it is important to understand and follow your doctor's instructions for follow-up and repeat blood testing. Symptoms of persistent lower abdominal pain should be reported to your doctor. Occasionally a second operation is necessary, while most women can be treated medically or observed for a longer period of time.
- **Wound Infection:** The incision sites can become infected. While it typically resolves with antibiotics and local wound care, occasionally, part or all of the incision may open and require revision ***\*If you have symptoms suggesting any of the above after your discharge from the hospital, you must contact us immediately or go to the nearest emergency room.***
- **Infertility:** Some women will be unable to conceive an intrauterine pregnancy or carry a pregnancy to viability following a tubal pregnancy. Age of the woman, number of previous pregnancies and births, presence of risk factors for ectopic pregnancy, and type of surgical treatment of tubal pregnancy all impact future fertility.
- **Recurrent Ectopic Pregnancy:** approximately one fourth of pregnancies following an ectopic pregnancy will be another ectopic pregnancy. For this reason if you become pregnant, or have the symptoms of pregnancy, you must be evaluated by your doctor to confirm an intrauterine pregnancy.
- **Heterotopic Pregnancy:** Heterotopic pregnancy occurs when there is more than one pregnancy in more than one location, such as an intrauterine pregnancy and a tubal pregnancy. This rarely occurs spontaneously and in approximately 1% of pregnancies conceived with in vitro fertilization. Often the intrauterine pregnancy does not survive the effects of a ruptured tubal pregnancy or surgical treatment of a tubal pregnancy.
- **Deep Vein Thrombosis (DVT)/Pulmonary Embolus (PE):** In any operation (especially longer operations), you can develop a clot in a vein of your leg (DVT). Typically, this presents two to seven days (or longer) after the procedure as pain, swelling, and tenderness to touch in the lower leg (calf). Your ankle and foot can become swollen. ***If you notice these signs, you should go directly to an emergency room and also call our office.*** Although less likely, this blood clot can move through the veins and block off part of the lung (PE). This would present as shortness of breath and possibly chest pain. We may sometimes ask the medical doctors to be involved with the management of either of these problems.
- **Bleeding/Hematoma:** When a small blood vessel continues to ooze or bleed after the procedure is over, the area of collected blood is referred to as a hematoma. The body normally re-absorbs this collection over a short period of time, and surgical drainage is rarely necessary.



ÖZEL

Anadolu  
Hastanesi

- **Lower Extremity Weakness/Numbness:** This, too, is a rare event that may arise due to your position on the operating table. It is possible in procedures in which you are in the lithotomy (legs up in the air) for a long period. The problem is usually self-limited, with a return to baseline expected.
- **Organ Injury:** During any part of the surgical procedure, any organ in the abdomen or pelvis (liver, spleen, colon, intestine, bladder, stomach, ureter, etc.) can be inadvertently injured. Often the injury is minor and can be treated with relative ease. In other instances, when the injury is major or the repair is complicated, more extensive surgery may be necessary. Treatment depends on the particular organ injured and the severity of the injury.

\_\_\_\_\_  
Patient

\_\_\_\_\_  
Date

\_\_\_\_\_  
Physician

\_\_\_\_\_  
Date

\_\_\_\_\_  
Witness

\_\_\_\_\_  
Date

The information contained in this Medical Informed Consent Form ("Consent Form") is intended to solely inform and educate and should not be used as a substitute for medical evaluation, advice, diagnosis or treatment by a physician or other healthcare professional. Please call your doctor if you have any questions.