In most cases a woman's egg is fertilized by a man's sperm in one of her fallopian tubes. The fertilized egg then moves through the tube to the lining of the uterus, where it implants and starts to grow. An ectopic pregnancy occurs when a fertilized egg grows outside of the uterus. Because it is outside of the uterus, an ectopic pregnancy cannot grow as it should and must be treated.

This pamphlet will explain

- symptoms of ectopic pregnancy
- how it is diagnosed
- how it may be treated

**About Ectopic Pregnancy**

Almost all ectopic pregnancies occur in a fallopian tube. Rarely, it will attach to an ovary or another organ in the abdomen. As the pregnancy grows, it can cause the tube to rupture (burst). If this occurs, it can cause major internal bleeding. This can be life threatening and needs to be treated with surgery.

Sometimes, if the tube has not ruptured, it can be treated with medication or repaired. If a woman wants to have children, she hopes to keep her fallopian tube. If the tube has ruptured, it may be removed. This means the woman will have to rely on the remaining tube for pregnancy.

**Who Is at Risk?**

Any sexually active woman of childbearing age is at risk for ectopic pregnancy. In the past two or three decades, ectopic pregnancy has become more common. Today, about 1 in 50 pregnancies is ectopic.
Women who have abnormal fallopian tubes are at higher risk for ectopic pregnancy. Abnormal tubes may be present in women who have had the following conditions:

- Pelvic inflammatory disease (an infection of the uterus, fallopian tubes, and nearby pelvic structures)
- Previous ectopic pregnancy
- Infertility
- Pelvic or abdominal surgery
- Endometriosis
- Sexually transmitted diseases
- Prior tubal surgery (such as tubal sterilization)

Some of these conditions produce scar tissue in the tubes. This may keep a fertilized egg from reaching the uterus.

Other factors that increase a woman's risk of ectopic pregnancy include

- cigarette smoking
- exposure to the drug diethylstilbestrol (DES) during her mother's pregnancy
- increased age

**Symptoms and Diagnosis**

The symptoms of ectopic pregnancy sometimes include the symptoms of pregnancy, such as tender breasts or an upset stomach. Some women may have no symptoms at all. They may not even know they are pregnant. If ectopic pregnancy is found early, it can be treated before the tube ruptures. Ectopic pregnancy may cause the following symptoms:

- **Abnormal vaginal bleeding.** Bleeding that is not at the time of your normal menstrual period is called abnormal vaginal bleeding. It may be light or heavy.
- **Abdominal or pelvic pain.** This can be sudden and sharp and ache without relief or seem to come and go. It may occur on only one side.
- **Shoulder pain.** Blood from the ruptured tube can build up under the diaphragm (the area between your chest and stomach). This can cause pain that is felt in the shoulder.
- **Weakness, dizziness, or fainting.** This can happen because of blood loss.

These symptoms can occur before you even suspect you are pregnant. If you have these symptoms, call your doctor.

If your doctor suspects that you may have an ectopic pregnancy, he or she may

- perform a pelvic exam
- check your blood pressure (low blood pressure may mean internal bleeding) and pulse
- perform an ultrasound exam (a test in which sound waves are used to create an image) to see if there are early signs of a pregnancy
- test your blood to detect the hormone human chorionic gonadotropin (hCG). This hormone is produced when a woman is pregnant. The test may be repeated to check the levels of hCG. If the level of hCG does not increase as expected, you may be at risk for an ectopic pregnancy or a miscarriage.
Tests to find ectopic pregnancy take time. Results may not be clear right away. Tests may need to be repeated. However, if your doctor suspects that you have an ectopic pregnancy that has ruptured a tube, it is an emergency. You will need to have surgery right away. If the pregnancy is still in the early stages and the tube is not in danger of rupture, medical treatment may be an option.

**Treatment**

There are two methods used to treat an ectopic pregnancy: medication and surgery. If your doctor thinks you have an ectopic pregnancy, he or she will discuss the best treatment based on your medical condition and your future plans for pregnancy. Several weeks of follow-up is required no matter which type of treatment you choose.

**Medication**

If the pregnancy is small and has not ruptured a tube, sometimes drugs can be used instead of surgery to treat ectopic pregnancy. Medication stops the growth of the pregnancy and permits the body to absorb it over time. It allows a woman to keep her tube.

The most common drug used to treat ectopic pregnancy is methotrexate. It also often is used to treat cancer. This drug stops cells from growing, which ends the pregnancy. The ectopic pregnancy then is absorbed by the body.

There are many factors that go into the decision to use methotrexate. It cannot be used for women who are breast-feeding or have certain health problems.

**Taking Methotrexate.** Methotrexate often is given by injection in one dose. In some cases, it may be given in many doses over several days. After treatment, it takes about 4–6 weeks for the pregnancy to be absorbed.

For this treatment, your doctor will take a sample of your blood in advance. Blood tests will be done to measure the functions of certain organs, as well as the level of hCG. After receiving the injection, levels of hCG will most likely increase until about the fourth day; then, they should decrease. On the seventh day, the doctor looks for a decrease in the hCG levels from day 4. If levels have not decreased enough, your doctor may suggest surgery or another dose of methotrexate to treat the ectopic pregnancy.

**Risks and Side Effects.** If you are taking methotrexate, you will be checked closely. Careful follow-up over time (about 30 days) is needed until hCG is no longer found in your blood.

During and after this treatment, you should avoid

- alcohol
- vitamins containing folic acid
- nonsteroidal antiinflammatory drugs (NSAIDS), such as ibuprofen
- sex

Talk to your doctor about when it will be safe to resume having sex and using these substances.

Medical treatment of an ectopic pregnancy can have some side effects. Almost two thirds of
the patients have abdominal pain. Vaginal bleeding or spotting also may occur. Other side effects from the drug may include

- nausea
- vomiting
- diarrhea
- dizziness

The risk of tubal rupture does not go away while you are taking methotrexate. See your doctor right away if you have any of the following symptoms:

- Sudden, severe abdominal pain
- Major increase in abdominal pain
- Heavy vaginal bleeding
- Dizziness, fainting, or rapid heartbeat

**Surgery**

If the pregnancy is small and the tube is not ruptured, in some cases the pregnancy can be removed through a small cut made in the tube during a laparoscopy. In this procedure a slender, light-transmitting telescope is inserted through a small opening in your abdomen. It is done in a hospital with *general anesthesia*. It allows the doctor to see inside your body. A larger incision in the abdomen may be needed if the pregnancy is large or the blood loss is thought to be a concern. Some or all of the tube may need to be removed.

It is important that all of the pregnancy is removed from the tube. Blood testing for hCG may be needed for a few weeks after the treatment to check for this.

If your tube bursts, you will have bleeding inside the abdomen. The bleeding may be heavy. Bleeding needs to be stopped promptly, and emergency surgery is needed. If little damage has been done to the tube, the doctor may try to repair it. But in many cases a ruptured tube must be removed.

If you have had surgery and the tubes have been left in place, there is a good chance that you can have a normal pregnancy in the future. Once you have had an ectopic pregnancy, though, you are at higher risk for having another one.

**After an Ectopic Pregnancy**

Emotional healing after a pregnancy loss is as vital as physical healing. Grieving helps you to deal with this painful loss. Counseling may be helpful to both you and your partner. Allow enough time for physical and emotional healing before trying to get pregnant again. Your doctor can give you some guidelines.

**Finally...**

Although an ectopic pregnancy can threaten your health and well-being, prompt treatment and follow-up care can help prevent complications. If you have any of the symptoms of ectopic pregnancy, see your doctor for treatment. It is best to find an ectopic pregnancy early and treat it before serious problems occur.
Glossary

**Endometriosis:** A condition in which tissue similar to that normally lining the uterus is found outside of the uterus, usually on the ovaries, fallopian tubes, and other pelvic structures.

**Fallopian tubes:** A pair of ducts that connect the ovaries to the uterus.

**General anesthesia:** The use of drugs that produce a sleeplike state to prevent pain during surgery.

**Hormone:** A substance produced by the body to control the functions of various organs.

**Infertility:** A condition in which a couple has been unable to get pregnant after 12 months without the use of any form of birth control.

**Miscarriage:** The spontaneous loss of a pregnancy before the fetus can survive outside the uterus.

**Ovary:** One of a pair of glands, located on either side of the uterus, that contains the eggs released at ovulation and produces hormones.

**Tubal Sterilization:** A method of female sterilization in which the fallopian tubes are closed by tying, banding, clipping, or sealing with electric current.

**Uterus:** A muscular organ located in the female pelvis that contains and nourishes the developing fetus during pregnancy.