

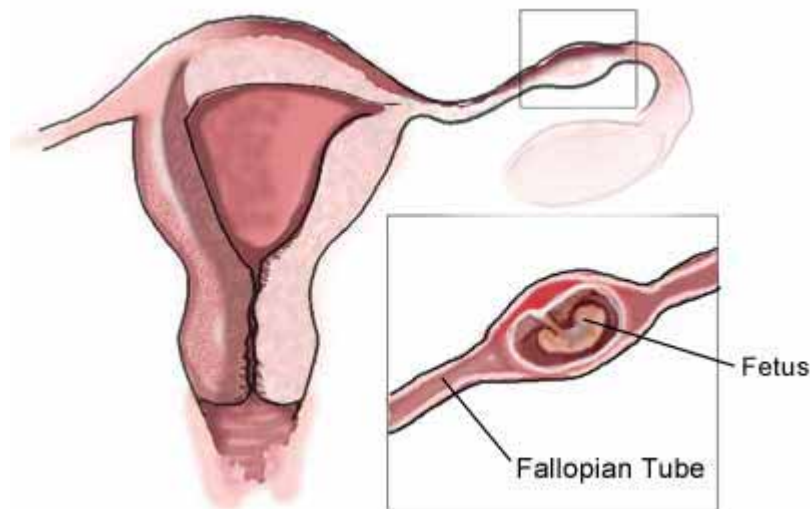
Clinical Guideline

Ectopic Pregnancy

By Dr. CJ Tseng

Ectopic means "out of place." In an ectopic pregnancy, a fertilized egg has implanted outside the uterus. The egg settles in the fallopian tubes more than 95% of the time. This is why ectopic pregnancies are commonly called "tubal pregnancies." The egg can also implant in the ovary, abdomen, or the cervix, so you may see these referred to as cervical or abdominal pregnancies.

None of these areas has as much space or nurturing tissue as a uterus for a pregnancy to develop. As the fetus grows, it will eventually burst the organ that contains it. This can cause severe bleeding and endanger the mother's life. A classical ectopic pregnancy never develops into a live birth.



What Are the Signs and Symptoms?

Ectopic pregnancy can be difficult to diagnose because symptoms often mirror those of a normal early pregnancy. These can include missed periods, breast tenderness, nausea, vomiting, or frequent urination.

Pain is usually the first red flag. You might feel pain in your pelvis, abdomen, or, in extreme cases, even your shoulder or neck (if blood from a ruptured ectopic pregnancy builds up and irritates certain nerves). Most women describe the pain as sharp and stabbing. It may concentrate on one side of the pelvis, and it may come and go or vary in intensity.

Any of the following additional symptoms can suggest an ectopic pregnancy:

- vaginal spotting or bleeding
- dizziness or fainting (caused by blood loss)
- low blood pressure (also caused by blood loss)
- lower back pain

What Causes an Ectopic Pregnancy?

An ectopic pregnancy results from a fertilized egg's inability to work its way quickly enough down the fallopian tube into the uterus. An infection or inflammation of the tube may have partially or entirely blocked it. Pelvic inflammatory disease (PID) is the most common of these infections.

Endometriosis (when cells from the lining of the uterus detach and grow elsewhere in the body) or scar tissue from previous abdominal or fallopian surgeries can also cause blockages. More rarely, birth defects or abnormal growths can alter the shape of the tube and disrupt the egg's progress.

How Is It Diagnosed?

If you arrive in the emergency department complaining of abdominal pain, you'll likely be given a urine pregnancy test. Although these tests aren't sophisticated, they are fast - and speed can be crucial in treating ectopic pregnancy.

If you already know you're pregnant, or if the urine test comes back positive, you'll probably be given a quantitative hCG test. This blood test measures levels of the hormone **human chorionic gonadotropin** (hCG), which is produced by the placenta. The hormone hCG appears in the blood and urine as early as 10 days after conception, and its levels double every 2 days for the first 10 weeks of pregnancy. If hCG levels are lower than expected for your stage of pregnancy, doctors are one step closer to diagnosing ectopic pregnancy.

The doctor will also give you a pelvic exam to locate the areas causing pain, to check for an enlarged, pregnant uterus, or to find any masses in your abdomen. You'll probably also get an ultrasound examination, which shows whether the uterus contains a developing fetus or if masses are present elsewhere in the abdominal area. But the ultrasound may not be able to detect every ectopic pregnancy.

A less commonly performed test, a **culdocentesis**, may be used to look for internal bleeding. In this test, a needle is inserted into the space at the very top of the vagina, behind the uterus and in front of the rectum. Any blood or fluid found there likely comes from a ruptured ectopic pregnancy.

Even with the best equipment, it's hard to see a pregnancy that's less than 6 weeks along. If your doctor can't diagnose ectopic pregnancy but can't rule it out, he or she may ask you to return every 2 days to measure your hCG levels. If these levels don't rise as quickly as they should, the doctor will continue to monitor you carefully until 6 weeks, when an ultrasound can be used.

What Are the Options for Treatment?

Treatment of an ectopic pregnancy varies, depending on its size and location and whether you want the ability to conceive again.

An early ectopic pregnancy can sometimes be treated with an injection of methotrexate, which dissolves the fertilized egg and allows your body to reabsorb it. This nonsurgical approach minimizes scarring of your pelvic organs.

If the pregnancy is further along, you'll likely need surgery to remove the abnormal pregnancy. In the past, this was a major operation, requiring general anesthesia and a large incision across the pelvic area. This may still be necessary in cases of emergency or extensive internal injury.

However, the pregnancy may sometimes be removed using laparoscopy, a less invasive surgical procedure. The surgeon makes a small incision in the lower abdomen and then inserts a laparoscope. This long, hollow tube with a lighted end allows the doctor to view internal organs and insert other instruments as needed. Sometimes, a second small abdominal incision is made for the instruments. The ectopic pregnancy is then surgically removed and any damaged organs are repaired or removed. General or regional anesthesia may be used.

Whatever your treatment, the doctor will want to see you regularly afterward to make sure your hCG levels return to zero. This may take up to 12 weeks. An elevated hCG could mean that some ectopic tissue was missed. This tissue may have to be removed using methotrexate or additional surgery.

What About Future Pregnancies?

Approximately 30% of women who have had ectopic pregnancies will have difficulty becoming pregnant again. Your prognosis depends mainly on the extent of the damage and the surgery that was done.

If the fallopian tube has been spared, the chances of a future successful pregnancy are 60%. Even if one fallopian tube has been removed, the chances of having a successful pregnancy with the other tube can be greater than 40%.

The likelihood of a repeat ectopic pregnancy increases with each subsequent ectopic pregnancy. Once you have had one ectopic pregnancy, you face an approximate 15% chance of having another.

Who's at Risk for an Ectopic Pregnancy?

The risk of ectopic pregnancy is highest for women who are between 35 and 44 years old and have had:

- PID
- a previous ectopic pregnancy
- surgery on a fallopian tube
- infertility problems or medication to stimulate ovulation

Some birth control methods can also increase your risk of ectopic pregnancy. If you get pregnant while using progesterone-only oral contraceptives, progesterone intrauterine devices (IUDs), or the morning-after pill, you're more likely to have an ectopic pregnancy.