

Ectopic Pregnancy: Early Diagnosis & Treatment

These are the most common patient questions re ectopic pregnancy:

- **What puts me at risk for an ectopic pregnancy ?**
- **If I am at risk, what can be done to monitor me for an earlier diagnosis ?**
- **What are my options for therapy if I do have an ectopic ?**
- **Will it affect my future chances to have a baby ?**

Approximately 1- 2% of all pregnancies are ectopic (most commonly in the fallopian tube). The risk of death related to ectopic pregnancy has decreased by almost 90% over the past 20 years. However, ectopic pregnancy is still the *leading cause of maternal death during the first trimester* of pregnancy due to difficult or delayed diagnosis leading to tubal rupture and hemorrhage.

Risk factors:

Risk factors for ectopic pregnancy include sexually transmitted infections (gonorrhea and chlamydia primarily), pelvic inflammatory disease, in utero diethylstilbestrol (DES) exposure, infertility and certain infertility treatments, previous tubal sterilization, and especially previous tubal surgery and previous ectopic pregnancies. Any previous tubal surgery increases the risk for ectopic pregnancy at least five-fold. Previous pelvic infection (PID) with its associated tubal pathology increases the risk for ectopic pregnancies at least three-fold. After one previous ectopic pregnancy the incidence of a recurrent ectopic pregnancy in either fallopian tube is approximately 10-25%, depending on the health of the tubes. After 2 previous ectopic pregnancies, there is over a 50% chance of another ectopic pregnancy; with 3 previous ectopic pregnancies there is over a 90% likelihood of another ectopic pregnancy. Therefore, any woman who has had 2 or 3 ectopic pregnancies should consider seeing a reproductive endocrinologist and proceeding to in vitro fertilization (IVF) where the embryos can be transferred into the uterine cavity and therefore decrease the risk of ectopic pregnancy to only 1-2%.

Close monitoring: early diagnosis

Ectopic pregnancy is associated with various symptoms: early known pregnancy or delayed menses associated with lower abdominal or pelvic pain, irregular vaginal bleeding or spotting. Ruptured ectopic pregnancies are less commonly seen today, primarily because modern diagnostic tests are more sensitive and allow for an earlier diagnosis. A greater knowledge of early symptoms and awareness of risk factors help to *raise clinical suspicion* for ectopic pregnancy and allows for earlier diagnosis. For most women, the combination of one or more serum hCG blood tests in conjunction with vaginal ultrasound(s) can often establish the early diagnosis of ectopic pregnancy. The early diagnosis of ectopic pregnancy allows for early intervention and treatment options that may help minimize tubal damage.

Treatment options:

Methotrexate medical therapy is now well-established as an *effective first line alternative* to surgical treatment for ectopic pregnancy. Another option includes a conservative surgical procedure (laparoscopy for linear salpingostomy) which can be performed to remove the pregnancy and save the fallopian tube. The likelihood of the affected tube remaining open after successful Methotrexate medical treatment for an ectopic pregnancy is comparable to conservative laparoscopic surgery and ranges between 60-85%.

Conservative laparoscopic linear salpingostomy is successful in salvaging the fallopian tube in approximately 80% of women, but in the remainder, persistent bleeding or excessive damage to the fallopian tube may require removal of the tube (salpingectomy). Other possible reasons for removal of the tube may be related to the location of the pregnancy or delay/difficulty in diagnosis so that the pregnancy may be more advanced causing more tubal damage or tubal rupture with hemorrhage.

Future pregnancies:

In general, approximately 60-85% of woman treated with either methotrexate medical therapy or conservative laparoscopic surgery later achieve an intrauterine pregnancy while 10-20% will experience a recurrent ectopic pregnancy. Overall, subsequent intrauterine pregnancy rates after an ectopic pregnancy are significantly higher after conservative surgical treatment or methotrexate therapy than after salpingectomy, emphasizing the benefit of earlier diagnosis and conservative management.

Laurence A. Jacobs M.D.

Laurence.Jacobs@integramed.com

www.TheInfertilityDoctor.com

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