

# Interstitial Ectopic Pregnancy

*Patient Information Series – What you should know, what you should ask.*

**This leaflet is designed to help you understand what interstitial ectopic pregnancy (IEP) is, how it happens, what the symptoms are and the risk of recurrence.**

## **What is an interstitial ectopic pregnancy?**

Normally, the gestational sac containing the early embryo, is implanted in the endometrial cavity within the uterus. An ectopic pregnancy is characterized by implantation and development of an embryo outside of the uterine cavity. IEP occurs when a fertilized egg implants in the portion of fallopian tube closest to the uterus.

## **How does an interstitial ectopic pregnancy happen?**

IEP is a subtype of tubal ectopic pregnancy. Risk factors for IEP include previous ectopic pregnancy, tubal surgery, in vitro fertilization (IVF), ovulation induction, or history of sexually transmitted disease.

## **What are the symptoms of an interstitial ectopic pregnancy?**

Symptoms can overlap with other ectopic pregnancies and may include a combination of the following signs:

- Amenorrhea (absence of menstrual period) is a common symptom. However, in some cases, abnormal bleeding is mistaken as a menstrual period, so you will think there is no history of abnormal bleeding.
- Vaginal bleeding: The bleeding may be characterized as just spotting or be prolonged or intermittent.
- Lower abdominal pain: Ectopic pregnancy pain is often located on one side of the body; the area may be tender to the touch or the pain may be severe.
- Some women may present with gastrointestinal symptoms (e.g., nausea and vomiting) so the suspected clinical diagnosis might be gastroenteritis rather than ectopic pregnancy.

## **How is an interstitial ectopic pregnancy diagnosed?**

Transvaginal ultrasound scan (TVS) is the primary diagnostic tool of all ectopic pregnancies. With this type of ultrasound, a device called a transducer is placed in your vagina. A transvaginal ultrasound allows your doctor to see the exact location of your pregnancy. However, early and exact diagnosis is challenge because an IEP can be misdiagnosed with an ectopic pregnancy in other locations in the uterus or Fallopian tube, such as eccentric intrauterine pregnancy or isthmic tubal ectopic pregnancy on ultrasound imaging.

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Your doctor may also ask you to have a blood test (called human chorionic gonadotropin or  $\beta$ -hCG) to confirm that you're pregnant. A suboptimal rise in this pregnancy hormone over a few days can suggest the diagnosis of an ectopic pregnancy but does not help to confirm the diagnosis of an IEP. Sometimes, this blood test may also be repeated every few days until ultrasound testing can confirm or rule out an interstitial ectopic pregnancy.

## What are the things to watch for?

If left untreated, the IEP will continue to grow, rupture, and cause an acute abdominal hemorrhage. In IEP, the gestational sac is implanted in the intramural portion covered by the myometrium and proliferated blood vessel near the fallopian tube. The rupture of an IEP would cause severe hemorrhage in the abdominal cavity and may lead to hypovolemic shock or even maternal death. It is therefore important that if you experience severe abdominal pain or any other worrying symptoms that you should go to the nearest emergency department immediately.

## What are the treatment options?

To prevent life-threatening complications, the IEP needs to be removed or ceased immediately after detection. Depending on your symptoms, and desire for subsequent pregnancies, the serum  $\beta$ -HCG levels and whether the IEP is live or not, your doctor will recommend medical treatment with drugs or surgical procedures.

Surgical interventions are recommended as the first-line option for IEP. Medical treatment should be offered as first option if HCG level is  $<5000$  units. However, complete resolution of pregnancy takes longer (20 weeks if methotrexate is given intramuscularly and 16 weeks if given in the sac).

## Will it happen again?

Risk of recurrence is extremely low. However, women with a history of IEP treated by surgical interventions, may have a higher risk of uterine rupture with subsequent pregnancies, because cornual resection may disrupt the uterine architecture. It is recommended to request for an early ultrasound scan with close follow-up monitoring with all future pregnancies.

## What other questions should I ask?

- When is my next follow-up appointment?
- What are my chances of having a healthy pregnancy in the future?
- How long should I wait before trying to become pregnant again?
- Will I need to follow any special precautions if I become pregnant again?

Last updated June 2022