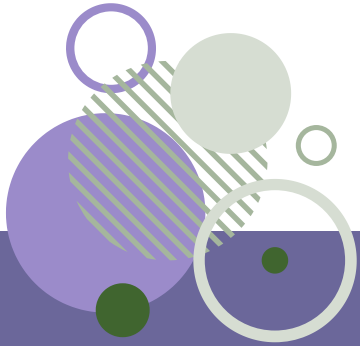
Ectopic Pregnancy

Information and Support

Pregnancy Loss Research Group

National Women & Infants Health Programme

Contents



Introduction

An ectopic pregnancy occurs when a pregnancy develops outside the correct location inside the uterus (womb), typically in the fallopian tube. While uncommon, 1 in 80 pregnancies in Ireland is an ectopic pregnancy. This condition is serious and requires immediate medical attention. When detected early, healthcare teams can provide treatment options that protect both the pregnant person's life and their future fertility.

Early detection of ectopic pregnancy is crucial. Most ectopic pregnancies are identified between 6 and 10 weeks of pregnancy. Because an ectopic pregnancy cannot develop into a viable pregnancy, it is considered a form of pregnancy loss. This can be very distressing, not only for the person experiencing the ectopic pregnancy but also for their partner.

This booklet explains risk factors, symptoms, and treatment options, focusing mainly on tubal ectopic pregnancy while including information about ectopic pregnancies in other locations. While informative, this resource should not replace personalised medical advice from healthcare professionals.

This booklet was developed in collaboration with Ectopic Pregnancy Ireland and is informed by the National Clinical Practice Guideline on the diagnosis and management of ectopic pregnancy. It is based on research conducted by the Pregnancy Loss Research Group, with input from knowledge users—including people with lived experience of ectopic pregnancy, healthcare professionals, and the National Women and Infants Health Programme. Throughout the booklet, you will find direct quotes from people with lived experience of ectopic pregnancy.

People who experience ectopic pregnancy have different ways of describing pregnancy and pregnancy loss. The booklet uses terms such as fetus, pregnancy tissue, and fetal tissue to be as inclusive and accurate as possible; for certain aspects of this experience, there are no terms that everyone agrees on. Healthcare professionals should be guided by you and use the language that you prefer. In this booklet, references to ectopic pregnancy mean tubal ectopic pregnancy unless the text says otherwise.

Understanding ectopic pregnancy

What is happening to the pregnancy during an ectopic pregnancy?

Before conception, the ovary releases an egg, which travels through the fallopian tube toward the uterus. It encounters sperm in the fallopian tube, where fertilisation occurs. Then, the fertilised egg proceeds down the fallopian tube towards the uterus. During a typical pregnancy, the fertilised egg implants itself inside the lining of the uterus, where the fetus then grows. However, in an ectopic pregnancy, the fertilised egg implants outside the usual or correct position inside the uterus.

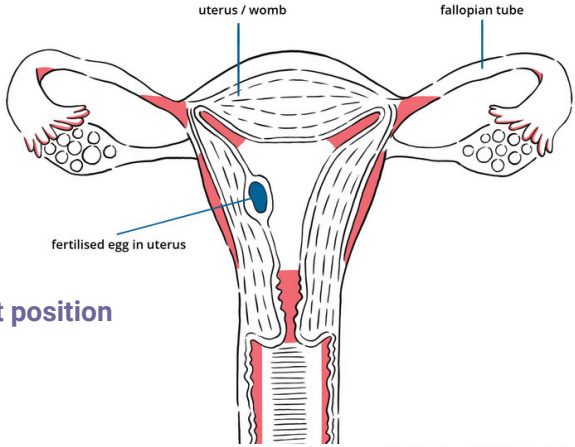


Figure 1: Correct position

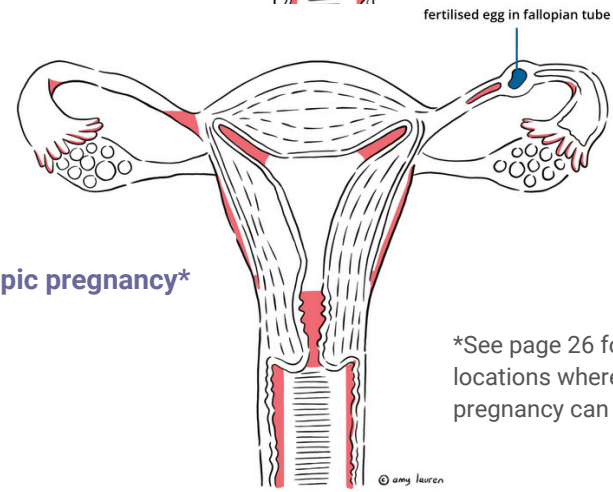


Figure 2: Ectopic pregnancy*

*See page 26 for all the possible locations where an ectopic pregnancy can occur.

Table: Understanding ectopic pregnancy

Medical term	Where it is located	How common it is
Tubal	Inside the fallopian tube (in the isthmus or ampulla)	almost all (95-98%) ectopic pregnancies
Interstitial (a type of tubal ectopic)	Inside the portion of the fallopian tube that lies in the muscular wall of the uterus	1 in 42 ectopic pregnancies
Cervical	Inside the cervix (the neck of the uterus, or womb)	< 1 in 1,000 ectopic pregnancies
Ovarian	Inside the ovary	1 in 200 ectopic pregnancies
Abdominal	Anywhere in the abdomen	< 1 in 100 ectopic pregnancies
Caesarean scar pregnancy	The pregnancy sac implants either fully or partially within the scar from a previous caesarean section	1 in 2000 pregnancies

What can happen to me if I have a tubal ectopic pregnancy?

As an ectopic pregnancy begins developing in the fallopian tube, you may experience discomfort or mild pain, sometimes with vaginal bleeding.

Even if symptoms appear mild, ectopic pregnancy is dangerous because the thin fallopian tube can only expand so much before rupturing (bursting) as the pregnancy grows. Rupture leads to intense abdominal pain and potentially life-threatening internal bleeding.

A pregnancy cannot sustain itself or remain viable within the fallopian tube.

Who is at risk of an ectopic pregnancy?

In Ireland, roughly 1 in 80 pregnancies is an ectopic pregnancy. It is important to note that half of the people diagnosed with ectopic pregnancy have no known risk factors. Anyone who can get pregnant can have an ectopic pregnancy, but people with a history of previous ectopic pregnancies are at a higher risk of having another, and other factors can increase the risk, such as:

- If you have had a previous ectopic pregnancy
- Damage to the fallopian tubes caused by:
    1. previous surgeries, such as appendectomy (surgery to remove the appendix), any previous caesarean section, or sterilisation;
    2. prior infections in the fallopian tubes (including previously treated sexually transmitted infections, e.g. chlamydia/gonorrhoea);
    3. prior infections in the abdomen/pelvis.
- Conceiving while using an intrauterine device (IUD/coil)
- Pregnancy resulting from assisted conception methods like in vitro fertilisation (IVF) or intracytoplasmic sperm injection (ICSI)
- Using the progesterone-only contraceptive pill (mini pill), or hormonal emergency contraception (lower level of risk than with IUD/coil)
- Smoking – any amount of smoking increases the risk, but the more you smoke, the more the risk increases.
- Endometriosis.

> “When I got (what I thought) my period at the end of January, I didn’t think much of it, it was early days. About 2 weeks later it became clear something was off, I was spotting and getting shooting pains in my lower back, the kind of pain that makes you jump.”

What is the link between In Vitro Fertilisation and ectopic pregnancy?

The process of In Vitro Fertilisation (IVF) involves retrieving eggs from the ovaries, followed by fertilisation with the sperm from either your partner or a donor, in a lab setting. Once fertilised, the egg becomes an embryo, and, typically, several embryos are created. A specialist will then carefully choose an embryo (or sometimes two) to be implanted into your uterus, while any remaining embryos might be frozen for potential future use.

Intracytoplasmic Sperm Injection (ICSI) is similar to IVF, but the sperm is directly injected into an egg. This technique is used for specific sperm-related issues or when the challenge in conceiving comes from the sperm's inability to penetrate the egg.

The risk of ectopic pregnancy is higher after IVF than spontaneous conception, and this risk is highest in women with tubal factor infertility (a type of female infertility caused by damage, blockage, or abnormalities in the fallopian tubes). From approximately 1 in 20 to 1 in 50 of clinical pregnancies resulting from IVF are ectopic pregnancies. In people with tubal factor infertility, this risk is as high as 1 in 10 (10%).

> “Most of the talks I was given at the hospital were about the fact that I could still get pregnant ‘naturally’ and that worst case scenario there was IVF…yes how about that…THIS one was an IVF pregnancy.”

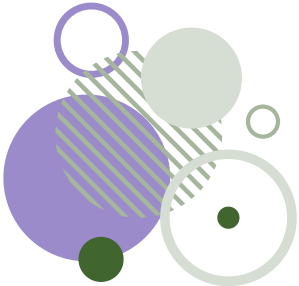
> “Didn’t realise I was pregnant but was so delighted with the positive test, I was still hopeful when I started bleeding. In my head it was a normal miscarriage.”

> The night before the scan I was very unwell. I had pain in my left side, I slept very little and could not find a comfortable position. In the morning, while having a shower, I felt so dizzy I almost passed out. As I arrived at the clinic with my husband, the doctor knew immediately there I was unwell, she scanned me and could not find anything in the uterus.

Individuals undergoing IVF with frozen embryo transfer are nearly 9 times more likely to experience an ectopic pregnancy, and, again, this likelihood tends to be higher with additional risk factors, such as a history of prior ectopic pregnancy or tubal infertility.

Despite the embryo(s) being directly transferred into the uterus through the cervix (neck of the uterus) during these fertility procedures, there is a possibility of the embryo(s) moving into the tubes, abdomen, ovaries, or even implanting on the cervix.

If you are undergoing IVF or ICSI treatment and become pregnant, it is important to continue to look out for symptoms of an ectopic pregnancy. After a positive pregnancy test from IVF/ICSI, a 6-week scan is undertaken to determine not only the viability of an intrauterine pregnancy, but also to rule out an ectopic pregnancy.



Symptoms

What are the symptoms of an ectopic pregnancy?

Physical symptoms of ectopic pregnancy typically appear around the 6th week of pregnancy, which is usually about 2 weeks after a missed period. However, this timing can be harder to track for people who have irregular periods or whose contraception has failed, as they may not realise they are pregnant or be able to pinpoint when their period was due.

Symptoms of ectopic pregnancy vary. While some people experience no symptoms, others may have a few or many, and the symptoms may be mild or severe. Due to this wide range, diagnosing an ectopic pregnancy isn't always straightforward.

Many people with ectopic pregnancies may also experience the common symptoms of early pregnancy, such as breast tenderness, nausea/vomiting, and fatigue. The presence of these symptoms does not rule out an ectopic pregnancy. Many people find out that they have an ectopic pregnancy during a routine ultrasound scan, and there may not have been symptoms.

However, symptoms can include:

- Lower abdominal pain, appearing suddenly or gradually over several days, possibly affecting one side.
- Gastrointestinal discomfort, including diarrhoea or pain, during bowel movements.
- Unusual vaginal bleeding that differs from your regular period, varying in intensity or colour.
- Shoulder tip pain, worsening with lying down and unaffected by movement or painkillers. If you experience this, urgent medical attention is necessary, as the pain may be resulting from abdominal bleeding
- Severe abdominal pain or collapse could be an indication of a ruptured fallopian tube and internal bleeding. In rare cases, collapse might be the initial sign, requiring urgent medical attention, as this could be life-threatening.

> “Everything felt good, no major symptoms, no sickness, no pains or spotting like before.”

> At 5 weeks I started spotting. I did not feel well and I had the strong feeling that something was wrong.

> That weekend, I had severe lower back pain which got progressively worse and so I went to A&E as something was obviously not right. A scan showed that the uterus was empty but the hCG levels in my blood were high.

Table: Symptoms of ectopic pregnancy

Symptom	Description/advice
Lower abdominal pain	Appears suddenly or gradually over several days; may affect one side.
Unusual vaginal bleeding	Differs from regular period; may vary in intensity/colour.
Gastrointestinal discomfort	Includes diarrhoea or pain during bowel movements.
Shoulder tip pain	Worsens when lying down; not relieved by movement or painkillers. May indicate abdominal bleeding. **Seek medical attention urgently.**
Severe abdominal pain or collapse	Could indicate a ruptured (burst) fallopian tube and internal bleeding. Collapse may be the first sign in rare cases. **Seek medical attention urgently.**

What should I do if I think I have a ruptured ectopic pregnancy?

Go immediately to the Emergency Room of the nearest hospital/maternity unit if you know you are (or think you might be) pregnant, and you have:

- Severe, abrupt, or sharp abdominal pain
- Shoulder tip pain that gets worse with lying down and is unaffected by movement or painkillers
- Fainting or severe dizziness leading to collapse
- Feeling very sick with signs like looking pale, having cold/clammy skin

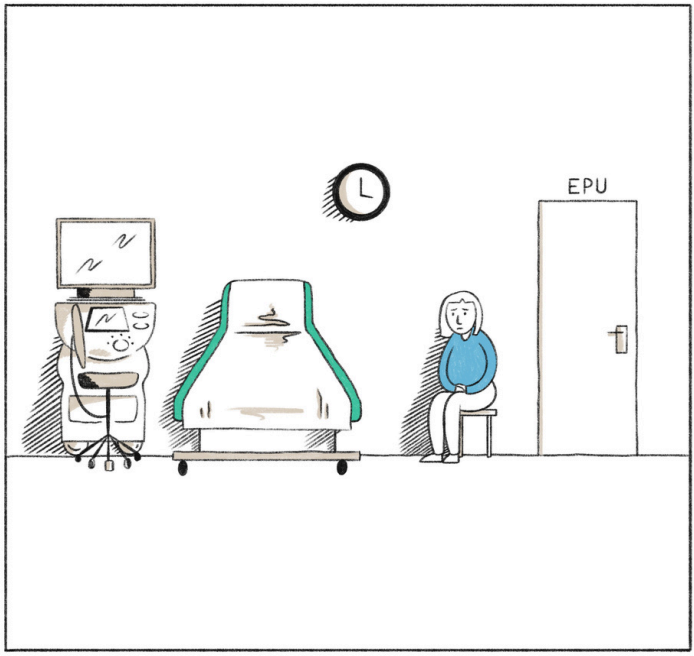
These symptoms may indicate internal bleeding or a ruptured fallopian tube. If you experience these, call 999 or 112 or go directly to the hospital.

What is an Early Pregnancy Unit (EPU)?

The Early Pregnancy Unit (EPU) is a specialised unit in the maternity unit/hospital where trained sonographers provide early pregnancy scans. This unit is appointment-based, and your GP or the Emergency Room will organise the scan appointment for you. It is open on certain days and times, and is not a 24/7 service.

> In some maternity units/hospitals, an EPU may be called an Early Pregnancy Assessment Unit (EPAU) or Early Pregnancy Clinic (EPC).

Once you have a confirmed ectopic pregnancy, it is important to stay in contact with your hospital's early pregnancy unit (EPU) or clinic. While most people undergo ectopic pregnancy care without major concerns, a few may encounter serious issues that require urgent surgical intervention (more on this in the 'Treatment' section that outlines different types of management).



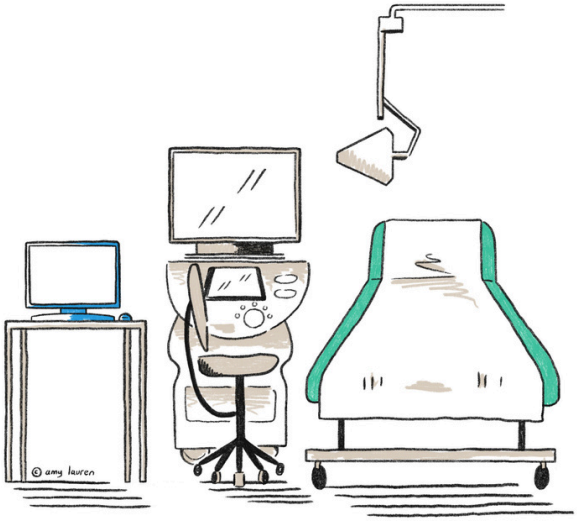
Diagnosis

How is an ectopic pregnancy diagnosed?

At the hospital, a doctor or midwife will ask about your symptoms and when you last had your period. They will feel your belly area and might need to do an internal examination (vaginal), but they will always ask for your permission first. You can have your partner or someone you trust with you during these checkups if you want.

Finding out if you have an ectopic pregnancy is not always straightforward. If you're in the very early stages of pregnancy, it might take several days or even longer to know for sure. Sometimes, there aren't any warning signs at all, which can make it harder for doctors to identify.

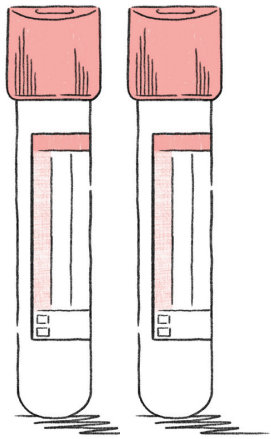
Since ectopic pregnancies can look a lot like miscarriages with symptoms like bleeding and abdominal pain, doctors might not be sure what is happening at first. You may need to return to the hospital's early pregnancy unit a few times so they can continue to monitor you until they have a clear understanding of what's happening. This may feel frustrating, but it is essential to ensure you receive the right care.



The main tests doctors use to check for an ectopic pregnancy:

A pregnancy test using your urine is usually the first step. You can bring a sample from home if you'd like. If this test is negative, it is unlikely you have an ectopic pregnancy. The doctor might also check your urine for other issues like infection.

You will likely need an internal ultrasound scan, where a small probe is gently placed inside your vagina. This gives healthcare staff a detailed look at your uterus (womb). In 74-86% of cases, an ectopic pregnancy may be diagnosed at the initial scan. However, sometimes, if it is very early in your pregnancy, they may not see a pregnancy yet (as it may be too small to visualise) and will ask you to come back in a few days for another scan.



Blood tests are also important. These measure your pregnancy hormone, or βhCG (beta human chorionic gonadotropin) levels. In ectopic pregnancies, these levels usually do not rise as quickly as they should. You might need to come back after a few days to check these levels again. Together, these tests help doctors figure out what's happening with your pregnancy.

In some cases, symptoms and initial test results indicate a strong possibility of a ruptured ectopic pregnancy. In such cases, there may be a decision to proceed rapidly with surgery, to protect the life and health of the woman, without having time for all of the tests outlined here (see more information about this in the section on ‘Surgical management’).

Table: Testing for an ectopic pregnancy

Step/Test	Description	Notes
Urine pregnancy test	First step; checks for pregnancy using a urine sample (can bring from home).	Negative result makes ectopic pregnancy unlikely; urine may also be checked for infection.
Internal ultrasound scan	A small probe is gently placed inside the vagina to view the uterus and surrounding area.	Diagnoses 74–86% of ectopic pregnancies at first scan; early pregnancies may require repeat scan.
Blood tests (βhCG levels)	Measures pregnancy hormone (βhCG) in the blood.	Ectopic pregnancies often show slower rise in βhCG; may need repeat testing after a few days.
Emergency surgery	If symptoms and initial tests strongly suggest a ruptured ectopic pregnancy, immediate surgery may be performed.	May skip some tests to protect health and life.

> “I knew the scan was taking too long and the probe was moving around a lot, it is another ectopic again isn’t it, this hit me like a tonne of bricks.”

What happens when an ectopic pregnancy is suspected or confirmed?

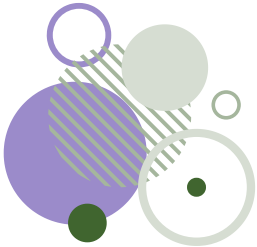
In such instances, your doctor will talk to you about available treatments. These options typically depend on the suspected or identified location of the ectopic pregnancy, and also on its size, βhCG levels, and your clinical situation, condition, and wishes.

It is important that when you are meeting with your doctor:

- You are allowed to express any concerns you may have.
- Your doctor helps you understand the implications of each option on your future fertility (refer to the section below titled "What about future
- pregnancies?").
- You are given adequate time to decide.
- You are given space to ask questions and seek additional information if anything is unclear.
- Your doctor ensures that you fully understand all the options.

> When my GP did a pregnancy test and it was positive, I knew something wasn't right. It took a few visits to the Early Pregnancy Unit with scans and blood tests to find out that the pregnancy was ectopic.

> When the pregnancy was diagnosed, I was devastated, but I had a feeling before the doctor confirmed it.



Pregnancy of unknown location

A pregnancy of unknown location (PUL) means a positive pregnancy test, but healthcare staff cannot see the pregnancy on an ultrasound scan. This may happen for several reasons:

- The pregnancy is correctly located in the uterus, but too early or small to detect on a scan.
- A recent miscarriage may have happened recently (pregnancy tests remain positive for several days).
- The pregnancy is ectopic (outside the correct placement inside the uterus), but too small or in a hard-to-see position.

Healthcare teams use blood tests to measure pregnancy hormone levels, along with ultrasound and physical examinations, to determine care. Although waiting for answers can be stressful, an accurate diagnosis is vital for proper treatment.

Monitoring involves regular blood tests measuring pregnancy hormone (βhCG) to see if levels increase (as in a growing pregnancy) or decrease (when a pregnancy is not continuing). These measurements help identify pregnancies of unknown location at higher risk of ectopic pregnancy and guide follow-up timing.

You may need several ultrasound scans or blood tests over a few weeks to see if the pregnancy is developing in the correct place inside the uterus, or if you are having a miscarriage or ectopic pregnancy.

When hormone levels drop and a pregnancy is not seen on an ultrasound scan, healthcare staff monitor levels until normal and confirm the pregnancy has ended. Most of these cases turn out to be low-risk, but the uncertainty, waiting, and knowing a viable pregnancy is not developing can be emotionally hard.

Treatment

What are the treatment options for an ectopic pregnancy?

In the case of an ectopic pregnancy, a senior doctor will provide guidance on the most appropriate treatment for you.

An ectopic pregnancy can never result in a viable pregnancy and is a threat to the woman's health, safety, and, potentially, future fertility. Therefore, even though it can be a very emotionally difficult thing for some to accept, all the available treatment options result in ending the ectopic pregnancy.

The decision as to which option for this treatment will be influenced by:

- The stage of your pregnancy
- Results from your ultrasound and blood tests
- Your symptoms and overall clinical condition
- Your fertility status
- Your overall health.

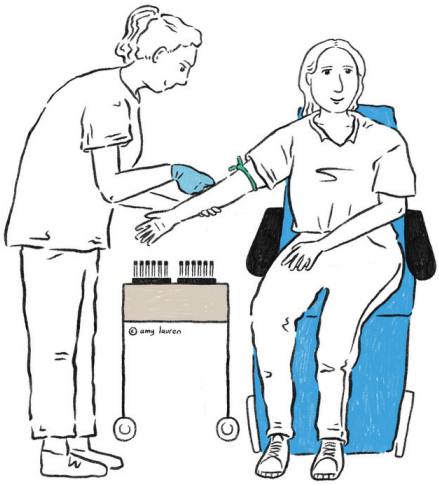
This decision will also be guided by your preferences, after you learn about the different treatment options. Your healthcare provider should help you make a fully informed decision between conservative, medical, or surgical management of ectopic pregnancy.

Conservative management

What happens during conservative management?

Similar to some cases of early miscarriage, an ectopic pregnancy can sometimes resolve spontaneously without doing anything medically to cause this to happen. This is called conservative management, sometimes called expectant management, and is a "watch and wait" approach. In this case, the management involves monitoring βhCG levels through blood tests until the levels return to non-pregnant levels. This typically takes about a month. If the decline in βhCG levels slows down or stops, or there are signs of a ruptured ectopic pregnancy, medical or surgical treatment options become necessary.

Some women, but not all, will experience vaginal bleeding as the pregnancy is ending.



This option is available only for early-stage ectopic pregnancies with minimal or no symptoms, and where the pregnancy is already spontaneously resolving. In these cases:

- The pregnant woman's vital signs (i.e. heart rate, blood pressure, breathing rate) are within normal ranges, and there is no sign of internal bleeding/shock.
- There is no evidence of a ruptured ectopic pregnancy.
- There is minimal discomfort / no severe pain.
- Pregnancy hormone βhCG levels (βhCG) are below 1500 IU/L and falling.
- The tubal mass is less than 3cm.
- The woman understands, agrees and can meet follow-up requirements, including the ability to return quickly to the hospital if symptoms develop.
- There is no fetal heartbeat present in the ultrasound scan.

Are there any risks with conservative management?

Even when pregnancy hormone (βhCG) levels are falling, there is still a risk that the ectopic pregnancy could rupture, which would require emergency surgery. Because of this risk, it is important to have on hand contact details for the hospital's Emergency Room and the Early Pregnancy Unit.

While you may not need to stay in the hospital during conservative management, you must return to the hospital's Emergency Room immediately if you develop any new or worsening symptoms, which can also include:

- Increased pain that becomes more severe than before
- Feeling generally unwell when you were previously stable
- Dizziness or vomiting that was not present before
- A sense that something is not right, even if you cannot pinpoint exactly what is wrong.

These symptoms could indicate a possible ruptured (burst) fallopian tube / internal bleeding, which requires emergency care. Do not wait to see if symptoms improve; go directly to the Emergency Room or call emergency services. Ideally, call someone to be with you.

Medical management

What happens during medical management?

Medical management with an injection of methotrexate works by stopping the growth of the ectopic pregnancy, leading to its gradual disappearance. This treatment option is highly effective, but only for ectopic pregnancies that meet specific criteria. The best outcomes with methotrexate are seen when:

- An ultrasound scan does not detect a heartbeat in the pregnancy.
- The pregnancy hormone test (βhCG) shows levels lower than 5,000 IU/L.
- βhCG displays a slow rise, unlike the typical doubling in levels every 2-3 days seen in a viable pregnancy.

If you meet these conditions, methotrexate treatment can be a good option for those wishing to avoid surgery (removing the fallopian tube under general anaesthetic), making it a safer choice, especially for those who have a history of abdominal surgery or a body mass index (BMI) above 35.

Before you have methotrexate, some blood tests may be needed. Then, the medication is given in a single injection (approximately 15 out of 100 patients may need a second injection), under medical supervision in a hospital setting.

Rates of effectively treating the ectopic pregnancy with a single dose of methotrexate vary based on initial βhCG levels:

- Below 1,500 IU/L, effectiveness rates are approximately up to 98%
- Below 5,000 IU/L, effectiveness rates are approximately up to 96%
- Effectiveness rates decrease to approximately 85% for βhCG levels between 5,000-9,999 IU/L

Follow-up care occurs at the EPU or hospital ward on days 4 and 7 after the injection, with blood tests to measure βhCG levels at each visit. While an increase in hormone levels is possible on day 4, doctors are looking for at least a 15% reduction in levels by day 7.

If the reduction is less than 15%, further options will be discussed with you, including a repeat ultrasound scan, a second injection, or surgical intervention. Otherwise, follow-up care also includes weekly βhCG measurements until levels return to normal, which usually takes about a month.

Physical signs that could indicate that medical management might not have worked include:

- Increased pain that becomes more severe than before
- Feeling generally unwell when you were previously stable
- Dizziness or vomiting that was not present before
- A sense that something is not right, even if you cannot pinpoint exactly what is wrong.

These symptoms could indicate a possible rupture or internal bleeding, which requires emergency care. Do not wait to see if these symptoms improve; go directly to the Emergency Room or call emergency services.

Are there risks with medical management?

Table: Risks with medical management

Risks	Details
Longer waiting period before trying to conceive	Methotrexate stays in the body for about 12 weeks; contraception is recommended during this time to avoid pregnancy.
Longer follow-up process compared to surgery	Follow-up appointments for about 3 weeks are needed to monitor treatment effectiveness and hormone levels.
Risk of treatment failure (second injection needed)	About 15 in 100 women may need a second methotrexate injection if the first does not fully end the ectopic pregnancy.
Risk of emergency surgery	About 7 in 100 cases may require emergency surgical intervention if complications such as rupture occur.

Being aware of these aspects of methotrexate treatment helps you make an informed decision about your care while understanding what to expect during the recovery process.

The use of methotrexate in treating ectopic pregnancy does not affect the capacity of the ovaries to produce eggs in future. However, as stated above, it's recommended to use contraception for 12 weeks after taking methotrexate to avoid pregnancy, as the medication could affect a developing embryo.

After taking methotrexate, 3 in 4 people experience lower abdominal pain. It is typically not severe, usually occurs in the first 7 days, lasts 4–12 hours, and is usually alleviated by paracetamol or similar pain-relieving medication. You will receive guidance on whom to reach out to in case of any more severe symptoms, such as nausea, vomiting, diarrhoea, or stomatitis (oral ulcers).

Surgical management

What happens during surgical management?

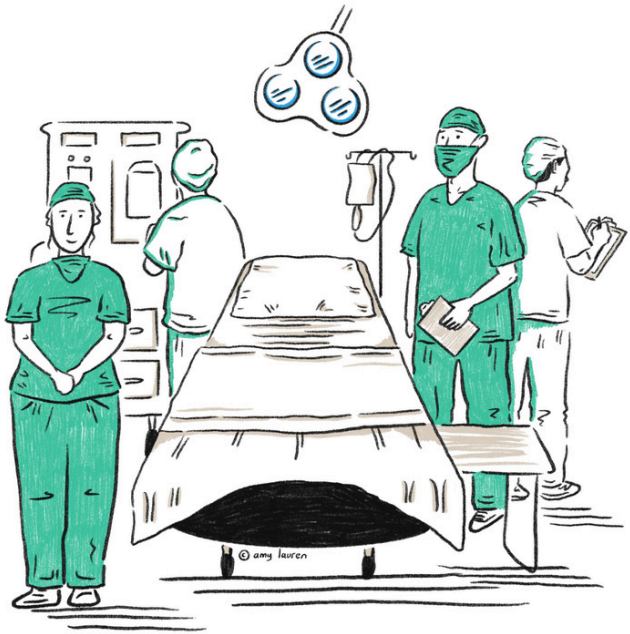
Surgical management of ectopic pregnancy is performed under general anaesthesia using either laparoscopy (keyhole surgery) or laparotomy (open surgery).

Laparoscopy involves smaller incisions, resulting sometimes in an overnight hospital stay (on rare occasions, 2 days). Physical recovery includes a 4-10 week period, with doctors typically recommending 1-4 weeks off work. Laparotomy requires a larger abdominal incision, leading to a 2-4 day hospital stay and a 4-6 week recovery period. Surgeons typically choose open surgery when severe internal bleeding is suspected.

During surgery, doctors perform either a salpingectomy (complete removal of the affected fallopian tube) or salpingostomy (preserving the tube). Salpingectomy is the most common surgical approach and is performed when there are no other infertility risk factors, and is often preferred to decrease future ectopic pregnancy risk.

Salpingostomy is a procedure that preserves the fallopian tube but has risks, including a 3-11% chance that tissue remains, requiring further treatment, increasing the likelihood of another ectopic pregnancy. It is a difficult surgery performed only by doctors with specialised skills and is rarely done.

The surgical method depends on factors such as how unwell you are, whether there is a rupture, βhCG levels, and any contraindications to other treatments. The main goal is to remove the ectopic pregnancy, with the specific technique based on your future pregnancy preferences and findings during the operation. All removed tissue is sent for laboratory testing.



Are there risks with surgical management?

Surgical management for ectopic pregnancy is generally safe; however, there are always risks associated with surgeries, and specific risks associated with this surgical management. Please see the following page.

Table: Risks with surgical management

Risk	Details
Surgical complications	In less than 1 in 100 cases; may include damage to surrounding organs requiring further surgery.
Blood transfusion	Needed in around 2 in 100 cases, especially if there is significant bleeding from the ectopic pregnancy.
Anaesthetic risks	Generally low; can include allergic reactions, breathing difficulties (aspiration), changes in blood pressure / heart rhythm, nausea, vomiting, sore throat from the breathing tube. Rarely, severe allergic reactions may occur. Risks are slightly higher in emergencies. Most effects are mild/ temporary.
Postsurgery pain	Discomfort around surgical wounds is common for a few days, sometimes with shoulder tip pain. Usually managed with over-the-counter painkillers; stronger medication may rarely be needed. Discomfort is normal and resolves quickly.
Wound infection	True infections occur in about 5 in 100 cases. Signs include increasing redness, warmth, swelling, or discharge. Slight redness is common with dissolving stitches. Contact EPU/Emergency Room if infection is suspected.
Vaginal bleeding	Increased bleeding for a few days after surgery is common, usually heavier than a regular period. In about 10 in 100 cases, the entire uterine lining may pass as a decidual cast, causing temporary discomfort. If bleeding is very heavy (e.g., filling a pad with clots every 15 minutes for over an hour or 4 soaked pads in 1 hour), seek medical attention.

What happens to the pregnancy tissue after surgical management?

After surgery, the pregnancy tissue is sent for examination. Occasionally, fetal tissue is found, but usually, it is too small to be seen. If separately identified, you may consent to a hospital burial or arrange a private burial.

These choices and the local options for management of pregnancy tissue will be discussed by healthcare professionals in the Emergency Room or Early Pregnancy Unit when planning your treatment.

What follow up care is available after surgical management?

After ectopic pregnancy surgery, your hospital should offer a follow-up appointment about 6-9 weeks later. The hospital follow-up visit should take place in a suitable clinic location (e.g. a gynaecology clinic) that is separate from pregnant women and infants. If no hospital appointment is given, your GP may do a post-operative check-up.

During both treatment discussions and follow-up appointments, healthcare providers will discuss future pregnancy planning. Your GP will be informed about your treatment and its impact on future pregnancies.

Emergency surgical management:

In an emergency, such as a ruptured ectopic pregnancy, immediate surgical intervention becomes necessary to stop the bleeding. This emergency procedure is often lifesaving and involves removing the ruptured fallopian tube and the ectopic pregnancy. Due to the urgency, medical professionals might need to quickly decide to proceed with surgery on your behalf. A blood transfusion may also be necessary in these situations.

Why might I be offered one type of treatment over another?

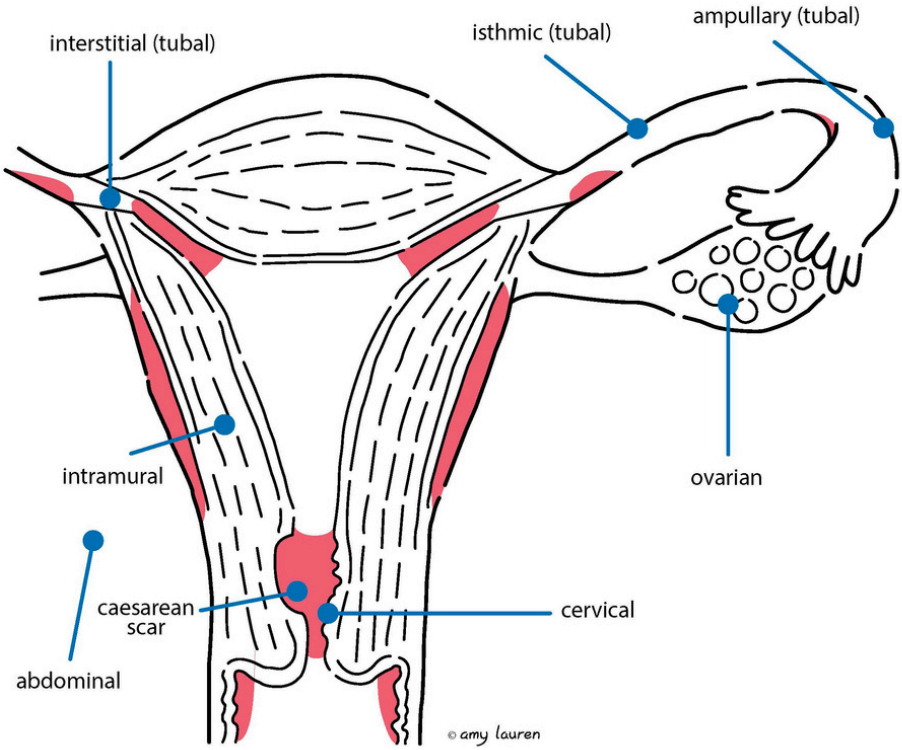
Outside of emergencies, your doctor/midwife might recommend one management over another for ectopic pregnancy, depending on certain factors. Please see the following page for reasons you might be offered one treatment over another.

Table: Why one treatment may be offered over another

Treatment	Reasons why this is recommended
Conservative management	• Ectopic pregnancy is diagnosed very early • βhCG in suitable range < 1,500 IU/L and decreasing • No or mild symptoms • Low risk of rupture or major bleeding • A preference to avoid surgery or medication • Possible to ensure close monitoring • Contraindications to surgery/methotrexate
Medical management	• βhCG in suitable range < 1,500 IU/L and decreasing • Ectopic pregnancy diagnosed early • No or mild symptoms • A preference to avoid surgery • Close monitoring and follow-up ensured • Contraindications to surgery or anaesthesia • Surgery poses a higher risk due to health • Body mass index (BMI) over 35 • Previous abdominal surgery • History of ectopic pregnancy reducing conservative management effectiveness
Surgical management	• Chance of methotrexate working less than 90% • Signs of internal bleeding or ruptured ectopic pregnancy • Severe pain requiring investigation • Breastfeeding (methotrexate not recommended) • Health conditions affected by methotrexate, including kidney or liver disease, pre-existing anaemia or other blood disorders, lung disease, immune disorders (e.g., lupus), or severe active infections • Challenges with follow-up after methotrexate treatment • Patient preference • Not clinically suitable for conservative or medical management due to ectopic pregnancy size (>3cm), type (live), or βhCG levels

Other types of ectopic pregnancy

Figure 3: Possible locations for ectopic pregnancy



Heterotopic Tubal Pregnancy
A heterotopic pregnancy happens where both an ectopic pregnancy (outside the correct position inside the uterus) and an intrauterine pregnancy occur at the same time. It is also known as a 'combined ectopic pregnancy', 'multiple-sited pregnancy', or 'coincident pregnancy'. This rare condition occurs in approximately 1 in 30,000 pregnancies, but rises to between 1 in 100 to 1 in 500 with assisted reproductive technologies (IVF/ICSI).

While one embryo implants outside the uterus (ectopic), another implants and grows normally within the womb (intrauterine). This situation demands careful management due to the potential risks associated with the ectopic pregnancy and the desire to safeguard the viable intrauterine pregnancy.

Interstitial Tubal Ectopic Pregnancy
An interstitial ectopic pregnancy is a form of tubal ectopic pregnancy occurring in the section of the fallopian tube closest to the womb and within the muscular wall of the womb. This type accounts for approximately 1 in 50 of all ectopic pregnancies.

This location poses considerable risks as the embryo grows within the uterine muscle, leading to delayed detection and increased potential for uterine rupture, severe bleeding, and complications in the early stages of pregnancy.

Rudimentary horn
A rudimentary horn pregnancy occurs when a fertilised egg implants in an underdeveloped section of the uterus known as the rudimentary horn of a unicornuate uterus. This extremely rare condition occurs in approximately 1 in 76,000-150,000 pregnancies.

This condition poses significant risks as the pregnancy develops in a space ill-equipped to support fetal growth, leading to potential complications such as rupture of the rudimentary horn, severe bleeding, and risk to maternal health.

Ovarian/cervical ectopic pregnancy
Typically, the egg implants in the fallopian tube during most ectopic pregnancies. However, in some instances, the egg might implant in other locations outside the womb, like your cervix (the neck of your womb) or, rarely, your ovary.

This can lead to various complications, including the potential for severe bleeding, as these locations lack the necessary structure and space to support the development of a growing fetus. Ovarian and cervical ectopic pregnancies present unique challenges due to their uncommon implantation sites.

Abdominal Ectopic Pregnancy
An abdominal ectopic pregnancy occurs when a fertilised egg implants in the abdominal cavity outside the uterus, fallopian tubes, and ovaries. This rare form accounts for under 1 in 100 ectopic pregnancies.

It can implant on various abdominal structures like the omentum, serosa, bowel, organs, retroperitoneum, or abdominal wall. Unlike other ectopic pregnancies, abdominal pregnancies can sometimes reach advanced gestation, even reaching term in extremely rare cases. However, because the embryo implants on organs not meant to support pregnancy, the increased risk of severe internal bleeding, delayed diagnosis, and complex surgery leads to a 5% higher death risk (for the pregnant woman) than other ectopic pregnancies. This means that 1 of every 20 women with ectopic pregnancies in these less common, high-risk locations faces a risk of death from complications, compared to other types of ectopic pregnancy.

Caesarean Scar Pregnancy
Caesarean scar pregnancy (CSP), though not technically an ectopic pregnancy, is included as it grows in the wrong place (the sac implants fully or partly in the scar from a previous caesarean section), posing risks if undetected.

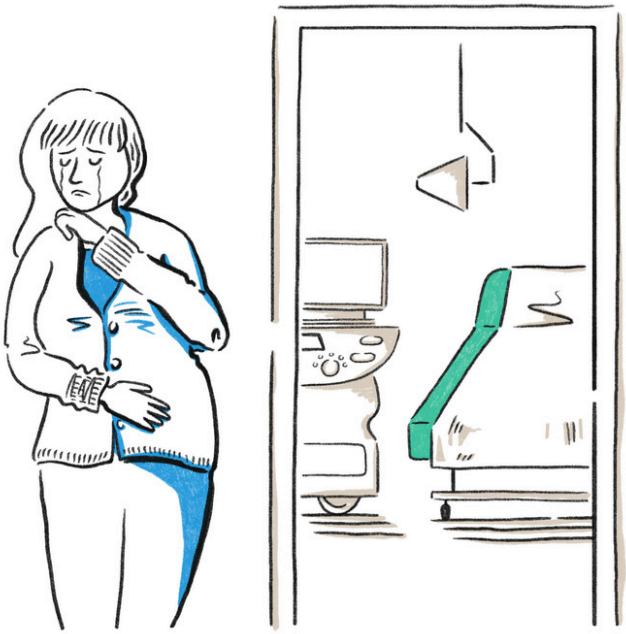
This ectopic pregnancy type forms in the uterus's fibrous scar tissue, raising the risk of uterine damage and severe bleeding since scar tissue lacks normal blood supply and structure. Without prompt management, it can cause life-threatening complications.

Treatment of these other types of ectopic pregnancy

The treatment approach depends on the specific type and location of ectopic pregnancy, as well as individual clinical circumstances.

Table: Treatment for other types of ectopic pregnancy

Type of ectopic pregnancy	Treatment
Heterotopic Tubal Pregnancy	Surgery to remove the ectopic pregnancy while preserving the intrauterine pregnancy.
Interstitial Tubal Ectopic Pregnancy	Conservative, medical (methotrexate if stable and small), or surgical removal of the affected tube (laparoscopy or laparotomy).
Rudimentary Horn Pregnancy	Surgical removal of the rudimentary horn and ectopic pregnancy to prevent rupture and preserve fertility when possible.
Ovarian/Cervical Ectopic Pregnancy	Early surgical removal, aiming to preserve ovarian or cervical tissue if possible; approach depends on location and severity.
Abdominal Ectopic Pregnancy	Surgical removal due to high risk of bleeding; placenta may be left in place if attached to vital structures; close follow-up.
Caesarean Scar Pregnancy	Vacuum aspiration if <9 weeks and straightforward; methotrexate if surgery unsuitable; advanced surgery for complex cases.



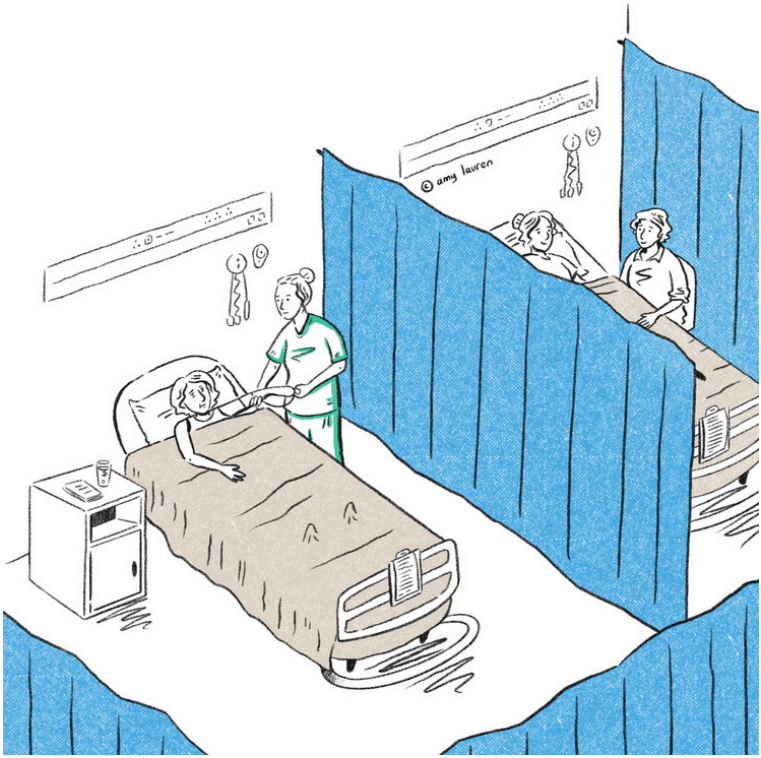
Looking at the monitor we saw a perfect little baby, but in my left fallopian tube. I had an emergency laparoscopy, my tube had begun to rupture and I had internal bleeding.. The baby and tube were removed. In the space of a month I had lost twins, and a tube. The surgeon explained that I had had a heterotopic pregnancy, extremely rare.

Aftercare and recovery

Ectopic pregnancy can become life-threatening, particularly if the fallopian tube ruptures and causes severe internal bleeding. Due to its seriousness, it is important to allow time for physical, mental, and emotional recovery.

If you have had an ectopic pregnancy, the chance of recurrence is around 7-10%, or between 1 in 10 to 1 in 14. In future pregnancies, an early scan is recommended to confirm that the pregnancy is in the correct place. If treated with methotrexate, avoid conceiving for at least 3 months due to potential harm to a developing embryo.

Physical recovery length depends on treatment; recovery after surgery can take up to 6 weeks, while emotional recovery has no set timeline and may take longer. Hospital protocols and bed shortages sometimes mean being near mothers and babies during admission or follow-up visits, which can be distressing.



Support is available if you are struggling. You can ask to speak with a chaplain, pastoral care worker, social worker, or bereavement specialist, as needed, and your GP can provide ongoing support for both your physical and emotional recovery. Maternity hospitals may also offer services through specialist midwives or chaplains, who can provide care following pregnancy loss. You should be informed about these support services and how to access them.

When can I have sex again?

Doctors typically suggest waiting around 6 weeks after your first post-treatment period before having penetrative sex, but the decision should be based on your readiness and comfort, discussed openly with your partner. You should not have sex when still bleeding after treatment for an ectopic pregnancy.

If undergoing conservative or medical management for ectopic pregnancy, avoid penetrative sex until β-hCG levels drop back to normal. This precaution minimises rupture risk, as the ectopic pregnancy tissue remains active while β-hCG is elevated. Penetrative sex increases pelvic blood flow and movement that could trigger rupture of the fallopian tube.

This restriction is part of the recommended reduced physical activity during treatment. It helps ensure safety while the body absorbs the pregnancy tissue (conservative management) or while methotrexate works to stop pregnancy growth (medical management).

Following surgical management, this waiting period allows for physical healing of the surgical site and reproductive system. It also provides time to confirm that hormonal function has returned to pre-pregnant levels, which is essential for supporting a healthy future pregnancy.

IMPORTANT: If you are having sex before this period, and you have been treated with methotrexate, you must use contraception for 3 months to prevent pregnancy while the medication is still in your system. Consult your doctor or a family planning clinic for advice, as certain forms of contraception might be more suitable following an ectopic pregnancy. Be sure to talk to your doctor or the clinic about your recent ectopic pregnancy.

When should my period return?

Regardless of the treatment, there is vaginal bleeding as the lining of the womb that supported the pregnancy sheds. Once this has finished, and your pregnancy hormone levels return to normal, your next cycle will begin. This varies from person to person and may be as early as 3 weeks or as late as 10 weeks.

Returning to work / why do I feel so tired, and how long should I rest, after an ectopic pregnancy?

Ectopic pregnancy, especially when it requires surgical management, is a significant medical experience, and it is normal if you feel fatigue/exhaustion during and after treatment. It is not unusual to feel tired and emotional for a few weeks afterwards, or for any pre-existing anxiety or other mental health challenges to increase for a time. Seek support, if needed. Resources listed at the end of this booklet may be of help.

Returning to work depends on many factors, including how you are feeling. Your doctor might recommend 1-4 weeks off immediately following treatment for ectopic pregnancy, but the duration depends on your treatment and emotional recovery. Discuss your readiness with your doctor, and if you need more time, communicate this.

For some people, additional time off work or normal activities to recover is beneficial. Others may seek familiar people, environment, and routine at work, or may be constrained by financial need to be in work. Circumstances differ for everyone and will depend on the physical, mental, and emotional state of the person experiencing the ectopic pregnancy, as well as on the demands and culture of their workplace.

If your tiredness persists and does not improve, please consult your GP. In cases where a letter for work is needed, the EPU will be able to provide one.

Emotional and psychological impact

Are my feelings normal?

Everyone experiences ectopic pregnancy and pregnancy loss differently. Some people will not feel or express the emotions they might expect, or that others might expect them to feel or express, and that is okay. Feelings may be numbed, delayed, or even contradictory. There is no one way, or right way, to respond. What is most important is to try to allow space, acceptance, and compassion for whatever feelings arise.

And while the above is true, people who go through an ectopic pregnancy often experience the same cycle of emotions as those who have lost a close relative or friend; denial, anger, guilt, sadness, anxiety, depression, feelings of emptiness and longing are all part of the normal grieving process. There may also be lingering fear if the ectopic pregnancy was a near-death experience. A pregnancy loss may leave you feeling isolated. You may also feel disappointed and think that your body has let you down. Your emotions can change daily. There is no set pattern, and, depending on what else is going on in your life, some days will be easier than others.

It is important to remember that ectopic pregnancy is not your fault.

With time, support, and giving yourself a chance to recover physically, you should gradually start to feel better. However, if, after giving yourself time to grieve and recover, you have continued trouble coping with daily life (i.e. loss of appetite, inability to sleep or focus at work, becoming isolated from family and friends), or if you have ongoing feelings of anxiety (an even more common symptom following miscarriage than depression), your GP can provide support and refer you for professional counselling if required.

Seeking support

While this booklet provides valuable information, it is important to remember that each situation is unique, and everyone's experience is very personal. If you are struggling emotionally, seeking professional support is vital. Your healthcare provider may offer guidance, discuss potential treatment options, and provide emotional support.

Additionally, connecting with support groups, online communities, or counselling services specialised in pregnancy loss can provide invaluable comfort and understanding during this difficult time. Remember, you are not alone, and support is available. See the resources at the end of this booklet for further information on the supports available.

> I felt sad and guilty for feeling jealous listening to the girl beside me and hearing the doctors tell her that her pregnancy was fine.

> It was physically difficult in the sense that I was still experiencing bleeding and cramping when I returned. It was also very hard to put a brave face on for the day, especially in the role of a teacher where I have to be upbeat, positive and organised. Sometimes the grief just hits me and I feel guilty about going about my normal routine when I am heartbroken.

How can I acknowledge the loss of my pregnancy?

With pregnancy loss in the first trimester, it can be difficult for some people not to have a funeral or burial to acknowledge and mark the loss. Symbolic rituals are important for emotional processing. Some people choose to mark their pregnancy loss with memorial rituals such as planting a tree, lighting a candle, or taking some time away.

All maternity hospitals and support organisations in Ireland hold remembrance services each year. For many, this service is an opportunity to acknowledge the loss of their pregnancy and to remember, in a supportive space with others who have experienced pregnancy loss.

You may feel sad on what should have been your due date. You might find it helpful to do something special at these times. You can mark your loss in whatever way is appropriate for you.

And if these considerations do not resonate with you at all, that is okay, too.

> My husband, even though he wanted kids too, seemed less excited, this is hindsight of course but he did tell me afterwards, that he often wondered why he wasn't excited about the pregnancy – he has strong instinct and must have just had a bad feeling from the beginning.

> It is the loss of a child that the parents have imagined a future for. The person carrying the pregnancy goes through both physical and emotional pain and their partner also goes through emotional pain while trying to be supportive.

> Remember the doctor telling her for pregnancy it is all about the perfect time, perfect place and sometimes that is difficult to achieve. I still find this consoling.

Is there support for my partner?

The loss of a pregnancy through ectopic pregnancy can be deeply distressing for both partners. While attention often focuses on the person who experienced the physical trauma, partners' feelings may be overlooked or minimised.

Partners also experience significant grief and loss. In emergencies where the pregnant person's life is at risk, partners face the additional fear of potentially losing their loved one, concerns about their health, and uncertainty about future family plans.

Taking time to talk openly about your individual experiences and feelings is essential for processing this experience, even if (or especially if) you have different coping styles. Support and counselling services are available for both of you as you navigate this difficult time.


B
A

When can I try again?

When can I try for another baby?

Before trying to get pregnant again, give yourself time to heal both emotionally and physically. While an ectopic pregnancy can be traumatic, especially in emergencies, it may help to know that the chances of having a viable pregnancy next time are much higher than having another ectopic pregnancy.

When to try again depends on your treatment:

- After surgery, once you have had a normal period / feel physically recovered
- After methotrexate: wait 3 months before trying to conceive
- After conservative management: when your pregnancy hormone/β-hCG levels are normal and you have had a regular period.

While your healthcare provider's advice is important, trying again may cause anxiety for both you and your partner, so take all the time you need.

> Never one to lose hope we began trying soon afterwards. After an early miscarriage I became pregnant again and our son was born less than a year after the ectopic surgery.

> I've always had a strong 'maternal' instinct and when we got married, children were always on the agenda. Yet for some reason, I always wondered if I would have difficulty getting pregnant.

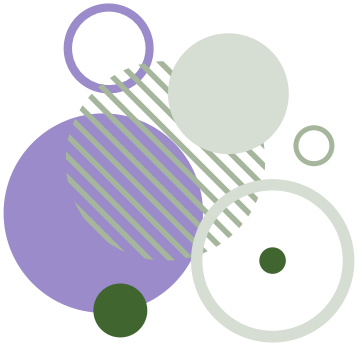
How will ectopic pregnancy affect my future fertility?

For most people, an ectopic pregnancy happens just once. Most will have a healthy pregnancy in the future, even with one fallopian tube removed. However, the chance of another ectopic pregnancy increases to about 1 in 10 to 1 in 14 (7-10%), compared to 1 in 100 (1%) for those without a history of ectopic pregnancy.

After losing a fallopian tube, fertility may not be reduced as much as you might fear. If your remaining tube is healthy, most people conceive within 18 months of trying. If pregnancy has not happened after 6-9 months, talk to your healthcare provider.

In rare cases where both tubes are damaged or removed, fertility treatments like IVF can still offer a path to pregnancy (you may wish to consult the National Women and Infants Health Programme guide to fertility services accessible via the links in the following section, 'More information and support').

If or when you become pregnant again, contact your local Early Pregnancy Unit (EPU) right away to schedule a scan at around 6 weeks. This scan will confirm whether the pregnancy is developing in the right place. Once a pregnancy is confirmed to be growing in the correct position inside the uterus, then the rest of your antenatal care will be the same as anyone with no history of ectopic pregnancy.



More information and support

In addition to services available within your hospital, which you can discuss with your healthcare providers, the following may be helpful sources of information and support:

Ectopic Pregnancy Ireland provides information and support to people who have been affected by an ectopic pregnancy:

- ectopicireland.ie

Pregnancy and Infant Loss Ireland is a directory of support services and resources for individuals who experience pregnancy loss, as well as for healthcare professionals.

- pregnancyandinfantloss.ie

Miscarriage Association of Ireland provides support, help, and information to women and men who experience miscarriage.

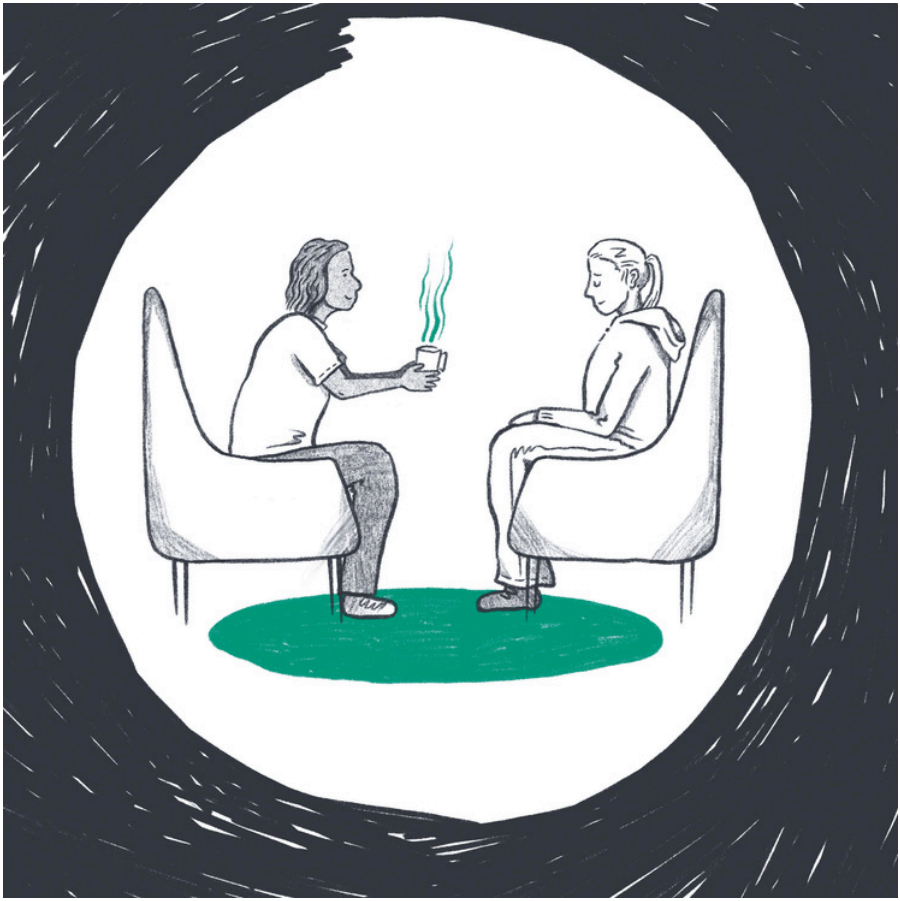
- miscarriage.ie

National Women and Infants Health Programme, Health Service Executive and **Institute of Obstetricians and Gynaecologists of the Royal College of Physicians of Ireland** produce clinical practice guidelines to guide clinician and patient decision making, to improve care quality and patient outcomes.

- hse.ie/eng/about/who/acutehospitalsdivision/womaninfants/clinicalguidelines/
- rcpi.ie/FacultiesInstitutes/InstituteofObstetriciansandGynaecologists/NationalClinicalGuidelinesinObstetricsandGynaecology

Getting involved in research on pregnancy loss:
This booklet was developed with the input of knowledge users, including people with lived experience of ectopic pregnancy, and healthcare professionals. To get information on the research conducted by the Pregnancy Loss Research Group, including how you might get involved in the research, go to:

- ucc.ie/pregnancyloss.



This booklet was developed by the Pregnancy Loss Research Group and Ectopic Pregnancy Ireland. Copyrighted illustrations by Amy Lauren.

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Pregnancy Loss Research Group

Ectopic Pregnancy Ireland

National Women & Infants Health Programme