

Patient information factsheet

Caesarean scar pregnancy

We have given you this factsheet because the results of your ultrasound scan have shown that your pregnancy is located within the scar tissue from a previous caesarean birth and your placenta is growing into the muscle wall of your womb (uterus). Your scan will have also shown that your pregnancy is continuing to develop despite being located within the caesarean scar tissue. This is described medically as a 'live caesarean scar pregnancy'.

This factsheet aims to support the discussions you will have with your doctor. It explains what a caesarean scar pregnancy is, the risks associated with it and the options available to you. We hope it will answer some of the questions you may have. If you have any further questions or concerns, please speak to a member of your medical team.

What is a caesarean scar pregnancy?

A caesarean scar pregnancy is a rare type of ectopic pregnancy where the embryo implants in the scar tissue in the wall of the womb from a previous caesarean birth, instead of in the usual site on the inner wall of the womb. The wall of the womb has a special lining (called the endometrium) which is adapted to allow an embryo to embed and grow. However, the caesarean scar area lacks this special lining and muscle tissue. This means the placenta (the organ that attaches the umbilical cord to the lining of the womb) becomes attached to thin muscle instead. This can lead to serious complications which are explained in more detail below.

How common is a caesarean scar pregnancy?

It is estimated that a caesarean scar pregnancy occurs once in every 2,000 pregnancies, which means that it is rare. However, in recent years the diagnosis has been made more often. This may be because the number of caesarean births is increasing, or because we are better at recognising it, or both.

Why does it happen?

It is not known why some embryos attach to the scar tissue and medical knowledge in this area is still developing. However, the risk of a caesarean scar pregnancy occurring increases with every caesarean birth you have.

Understanding the risks associated with a caesarean scar pregnancy

Having a caesarean scar pregnancy creates many emotionally difficult decisions due to the risks involved both during pregnancy and at the time of birth. These are outlined on the next page, along with the latest medical evidence available, to assist you with making this decision. However, because a caesarean scar pregnancy is rare, there are some uncertainties about the best way to manage it, as it is difficult to predict what the eventual outcome of your pregnancy will be.

Risks during pregnancy

Uterine scar separation

As your current pregnancy progresses, the wall of your womb will grow and stretch. This can place pressure on the uterine scar from a previous caesarean birth, causing it to separate (open). While the exact risk of scar separation is unknown, it is higher when the pregnancy is embedded in the scar. Although it is possible for a pregnancy to continue to grow into the womb and develop, it may also embed deeper into the wall of the womb, increasing the risk of scar separation and life-threatening bleeding (haemorrhage). It can be difficult to determine the way in which a pregnancy may progress from initial scans as the placenta develops with time, making it very hard to predict which uterine scar will separate and when this might occur. However, as the pregnancy progresses, the likelihood of scar separation increases.

Placenta accreta spectrum

This is when the placenta becomes stuck to the wall of the womb and may grow through into the bladder.

Both of these conditions can result in serious bleeding that can be life-threatening. In some cases, major surgery may be necessary, including an emergency hysterectomy (an operation to remove the womb). You will no longer be able to become pregnant after a hysterectomy and it is not reversible. Your doctor will be able to answer any questions you may have about what is involved.

There is also a risk of prematurity, as it may be necessary for your baby to be born urgently if complications and/or serious bleeding occur.

Risks at birth

After birth, the muscle of the womb contracts so the blood vessels that were giving blood to the baby via the umbilical cord are squeezed shut. This allows the placenta to separate from the wall of the womb easily. However, in a caesarean scar pregnancy, the placenta is embedded in the wall of the womb meaning it cannot separate easily. This may lead to heavy bleeding which can only be controlled by major surgery. An emergency hysterectomy to remove the womb may also be necessary. Treatment may also involve blood transfusions and treatment in intensive care.

It is important to understand that the complications of a caesarean scar pregnancy can be life-threatening. Unfortunately, it is not possible to accurately predict whether complications will develop or how serious they will be.

Options available to you

The management of a caesarean scar pregnancy depends on whether you are experiencing any pain and/or serious bleeding and your wishes following counselling.

The options are:

- to continue with your pregnancy, ensuring you are aware of the increased risks associated with this decision
- to end your pregnancy with a termination

As a caesarean scar pregnancy will often miscarry on its own with time, some parents hope that taking a wait-and-see approach can relieve them of the difficult choice to end a pregnancy. However, this approach also presents you with significant risks.

Continuing your pregnancy

If you decide to continue with your pregnancy, you will have a series of ultrasound scans. After 14 weeks, you will be seen by an obstetric team specialised in the management of placenta accreta spectrum. The team will continue to monitor you closely for the rest of your pregnancy.

Your medical team will want to ensure that you fully understand the risks associated with this option, including the severity of the potential complications - which, as already stated, have the potential to be life-threatening - and the likelihood that you will need to have a hysterectomy.

Choosing to end your pregnancy

If you choose to end your pregnancy, you will be offered an operation. This will be carried out under general anaesthetic. The procedure will be performed under ultrasound guidance to reduce the risk of injury to the wall of your womb. There is a risk of bleeding during surgery and a very small risk of a hysterectomy being needed. If the bleeding is heavier than normal, a stitch will be placed in your cervix (neck of your womb) to close your womb. This will allow a clot to form in the scar so that the bleeding stops. The stitch will then be removed a week later as part of your outpatient appointment.

Future pregnancies

Although it may feel too soon to think about a future pregnancy at the moment, you may find it helpful to know about a recent research study which showed 67% of pregnancies after a caesarean scar pregnancy were uncomplicated. It is likely that a future pregnancy will attach in the usual place away from the scar, resulting in a pregnancy that progresses in the usual manner.

Making your decision

Deciding whether or not to continue with a pregnancy which poses a risk to both you and/or your baby is an incredibly difficult one. You and your partner will have the opportunity to discuss your options with a doctor. It is important to make sure that you:

- fully understand all your options
- ask for more information if there is something you do not understand
- raise your concerns, if you have any
- understand what each option means in terms of future pregnancies
- have enough time to make your decision

You may also find it helpful to talk to the people close to you about how you feel, and to your midwife or doctor about what's happened and why. Contacting the support groups listed at the end of this factsheet may also be beneficial.

Understanding the outcomes at Princess Anne Hospital

We have outlined our experience in treating caesarean scar pregnancies along with the outcomes below.

Between 2011 and 2020, we cared for 41 women with a live caesarean scar pregnancy.

- 16 chose to have surgery to end their pregnancy and had a normal blood loss.
- 1 chose to have surgery to end their pregnancy and had a very heavy blood loss and needed a hysterectomy (a surgical procedure to remove the womb).
- 24 chose to continue with their pregnancy.

Of the 24 who chose to continue with their pregnancy:

- 4 had a first trimester miscarriage and had an uncomplicated surgical management with normal blood loss.
- 10 developed placenta accreta spectrum, of which 8 needed a hysterectomy at the time of birth.
- 10 did not develop placenta accreta spectrum.

How does our experience compare with other hospitals?

Our experience and outcomes are in line with those reported by other large maternity hospitals, and with the data published in medical literature. Evidence from other large maternity hospitals has also shown that a diagnosis of caesarean scar pregnancy in the first three months of pregnancy is associated with a high chance of developing placenta accreta spectrum and heavy bleeding in the later stages of pregnancy, resulting in the need for an emergency hysterectomy in most cases. One study reported an emergency hysterectomy was necessary in 10 out of 10 cases, whereas another one reported an emergency hysterectomy in 4 out of 9 cases. This highlights how difficult it is to predict the complications and outcomes of a caesarean scar pregnancy.

If you have any further questions regarding these outcomes, or would like to discuss anything covered in this factsheet in more detail, please speak to a member of your healthcare team.

Additional support available

The Ectopic Pregnancy Trust

The Ectopic Pregnancy Trust is a charity offering information, support and a helpline service.

Email: ept@ectopic.org.uk

Telephone helpline: **020 7733 2653**

Website: www.ectopic.org.uk

There is also a wide range of health information and support available on the NHS UK website: www.nhs.uk

If you are a patient at one of our hospitals and need this document translated, or in another format such as easy read, large print, Braille or audio, please telephone **0800 484 0135** or email patientsupporthub@uhs.nhs.uk

For help preparing for your visit, arranging an interpreter or accessing the hospital, please visit www.uhs.nhs.uk/additionalsupport