

Information for you

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Recurrent and late miscarriage: tests and treatment of couples

About this information

Having a miscarriage can be very distressing. To have several miscarriages or a late miscarriage can be devastating. This information is for you if you have had three or more early miscarriages or one or more late miscarriages.

It tells you:

- what we know about the reasons for recurrent miscarriage and late miscarriage
- about recommendations for tests and treatment for couples in this situation.

It aims to help you and your healthcare team make the best decisions about your care. It is not meant to replace advice from a doctor or midwife about your own situation.

What is a miscarriage?

If you lose a baby before 24 weeks of pregnancy, it is called a miscarriage. If this happens in the first 3 months of pregnancy, it is known as an early miscarriage. Unfortunately, early miscarriages are common, with 10–20 in 100 (10–20%) pregnancies ending this way.

Late miscarriages, after 3 months of pregnancy but before 24 weeks, are less common: 1–2 in 100 (1–2%) pregnancies end in a late miscarriage.

What is recurrent miscarriage?

When a miscarriage happens three or more times in a row, it is called recurrent miscarriage. Recurrent miscarriage affects 1 in 100 (1%) couples trying to have a baby.



Why does recurrent miscarriage and late miscarriage happen?

Sometimes there is a reason found for recurrent and late miscarriage. In other cases, no underlying problem can be found. Most couples are likely to have a successful pregnancy in the future, particularly if test results are normal.

There are a number of factors that may play a part in causing recurrent and late miscarriage:

- **Age**
The older you are, the greater your risk of having a miscarriage. If the woman is aged over 40, more than 1 in 2 pregnancies end in a miscarriage. Miscarriages may also be more common if the father is older.
- **Antiphospholipid syndrome (APS)**
APS (a syndrome that makes your blood more likely to clot) is uncommon but is a cause of recurrent miscarriage and late miscarriage.
- **Thrombophilia**
Thrombophilia (an inherited condition that means that your blood may be more likely to clot) may cause recurrent miscarriage and in particular late miscarriages.
- **Genetic factors**
In about 2–5 in 100 couples (2–5%) with recurrent miscarriage, one partner will have an abnormality on one of their chromosomes (the genetic structures within our cells that contain our DNA and the features we inherit from our parents). Although this may not affect the parent, it can sometimes cause a miscarriage.
- **Weak cervix**
Weakness of the cervix is known to be a cause of miscarriage from 14 to 23 weeks of pregnancy. This can be difficult to diagnose when you are not pregnant. It may be suspected if in a previous pregnancy your waters broke early, or if the neck of the womb opened without any pain.
- **Developmental problems of the baby**
Some abnormalities of the baby may lead to a miscarriage but are unlikely to be the cause of recurrent miscarriage.
- **Infection**
Any infection that makes you very unwell can cause a miscarriage. Milder infections that affect the baby can also cause a miscarriage. The role of infections in recurrent miscarriage is unclear.
- **Shape of the uterus**
It is not clear how much an abnormally shaped uterus contributes to recurrent miscarriage or late miscarriages. However, minor variations do not appear to cause miscarriage.
- **Diabetes and thyroid problems**
Diabetes or thyroid disorders can be factors in miscarriages. They do not cause recurrent miscarriage, as long as they are treated and kept under control.
- **Immune factors**
It has been suggested that some women miscarry because their immune system does not respond to the baby in the usual way. This is known as an alloimmune reaction. There is no clear evidence to support this theory at present. Further research is needed.

Are there any other risk factors?

Being overweight increases the risk of miscarriage. Smoking and too much caffeine may also increase the risk. Excessive alcohol is known to be harmful to a developing baby and drinking five or more units a week may increase the risk of miscarriage.

The chance of a further miscarriage increases slightly with each miscarriage. Women with three miscarriages in a row have a 4 in 10 chance of having another one. This means that 6 out of 10 women (60%) in this situation will go on to have a baby next time.

Why are investigations helpful?

Finding out whether there is a cause for your recurrent miscarriage or late miscarriage is important as your doctor will be able to give you an idea about your likelihood of having a successful pregnancy. In a small number of cases there may be treatment available to help you.

What investigations might be offered?

Blood tests:

- For APS. APS is diagnosed if you test positive on two occasions 12 weeks apart, before you become pregnant again.
- For thrombophilia. If you have had a late miscarriage you should be offered blood tests for certain inherited thrombophilias.
- To check you and your partner's chromosomes for abnormalities. You may be offered this test if your baby has been shown to have abnormal chromosomes.

Tests for abnormalities in the baby

You should be offered tests to check for abnormalities in your baby's chromosomes. This is not always possible but may help to determine your chance of miscarrying again.

If you have had a late miscarriage you may also be offered a postmortem examination of your baby. This will not happen without your consent and you will have the opportunity to discuss this with your health team beforehand.

Tests for abnormalities in the shape of your uterus

You should be offered a pelvic ultrasound scan to check for any abnormalities in the shape of your uterus. If an abnormality is suspected, further investigations may include a hysteroscopy (a procedure to examine the uterus through a small telescope which is passed through the vagina and cervix) or a laparoscopy (a procedure in which a surgeon uses a fine telescope to look inside the abdomen and pelvis).

Tests for infection

If you have had a late miscarriage, tests such as blood samples and vaginal swabs may be taken at the time to look for any source of infection.

What are my treatment options?

Treatment for APS

If you have APS and have had recurrent miscarriage or a late miscarriage, treatment with low-dose aspirin tablets and heparin injections in pregnancy increases your chance of having a baby. Aspirin and heparin make your blood less likely to clot and are safe to take in pregnancy.

Having APS means you are at increased risk of complications during pregnancy such as pre-eclampsia, problems with your baby's growth and premature birth. You should be carefully monitored so that you can be offered treatment for any problems that arise.

Treatment for thrombophilia

If you have an inherited tendency to blood clotting (thrombophilia) and have had a miscarriage between 12 and 24 weeks of pregnancy, you should be offered treatment with heparin.

At present there is not enough evidence to say whether heparin will reduce your chance of miscarriage if you have had early miscarriages (up to 12 weeks of pregnancy). However, you may be still offered the treatment to reduce the risk of a blood clot during pregnancy. Your doctor will discuss what would be recommended in your particular case.

Referral for genetic counselling

If either you or your partner has a chromosome abnormality, you should be offered the chance to see a specialist called a clinical geneticist. They will discuss with you what your chances are for future pregnancies and will explain what your choices are. This is known as genetic counselling.

Monitoring and treatment for a weak cervix

If you have had a miscarriage between 14 and 24 weeks and have a diagnosis of a weak cervix, you may be offered an operation to put a stitch in your cervix. This is usually done through the vagina at 13 or 14 weeks of pregnancy under a general or spinal anaesthetic. Your doctor should discuss the surgery with you.

If it is unclear whether your late miscarriage was caused by a weak cervix, you may be offered vaginal ultrasound scans during your pregnancy to measure the length of your cervix. This may give information on how likely you are to miscarry. If your cervix is shorter than it should be before 24 weeks of pregnancy, you may be offered an operation to put a stitch in your cervix.

Surgery to the uterus

If an abnormality is found in your uterus, you may be offered an operation to correct this.

Hormone treatment

Taking progesterone or human chorionic gonadotrophin hormones early in pregnancy has been tried to prevent recurrent miscarriage. More evidence is needed to show whether this works.

Immunotherapy

Treatment to prevent or change the response of the immune system (known as immunotherapy) is not recommended for women with recurrent miscarriage. It has not been proven to work, does not improve the chances of a live birth and may carry serious risks (including transfusion reaction, allergic shock and hepatitis).

What if no cause is found?

Where there does not appear to be a cause for recurrent miscarriage or late miscarriage, there is currently no evidence that heparin and aspirin treatment reduces the chance of a further miscarriage. For that reason this treatment is not recommended in these circumstances.

What does this mean for us in the future?

You and your partner should be seen together by a specialist health professional. This may be within a clinic dedicated to recurrent and late miscarriage.

Your doctor will talk to you both about your particular situation and your likelihood of having a further miscarriage and a successful pregnancy. If a cause has been found, possible treatment options will be offered to you to improve your chance of a successful pregnancy.

Women who have supportive care from an early pregnancy assessment unit from the beginning of a pregnancy have a better chance of a successful birth. For couples where no cause for recurrent miscarriage has been found, 75 in 100 (75%) will have a successful pregnancy with this care.

It is worth remembering that the majority of couples will have a successful pregnancy the next time even after three miscarriages in a row.

Further support

The Miscarriage Association: www.miscarriageassociation.org.uk

Sources and acknowledgements

This information has been developed by the RCOG Patient Information Committee. It is based on the RCOG guideline *The Investigation and Treatment of Couples with Recurrent Miscarriage* (last revised in April 2011). The guideline contains a full list of the sources of evidence we have used. You can find it online at: www.rcog.org.uk/womens-health/clinical-guidance/investigation-and-treatment-couples-recurrent-miscarriage-green-top-.

The RCOG produces guidelines as an educational aid to good clinical practice. They present recognised methods and techniques of clinical practice, based on published evidence, for consideration by obstetricians and gynaecologists and other relevant health professionals. This means that RCOG guidelines are unlike protocols or guidelines issued by employers, as they are not intended to be prescriptive directions defining a single course of management.

The previous version of this information was reviewed before publication by women attending clinics in London and Liverpool.

A glossary of all medical terms is available on the RCOG website at <http://www.rcog.org.uk/womens-health/patient-information/medical-terms-explained>.

A final note

The Royal College of Obstetricians and Gynaecologists produces patient information for the public. The ultimate judgement regarding a particular clinical procedure or treatment plan must be made by the doctor or other attendant in the light of the clinical data presented and the diagnostic and treatment options available. Departure from the local prescriptive protocols or guidelines should be fully documented in the patient's case notes at the time the relevant decision is taken.

All RCOG guidelines are subject to review and both minor and major amendments on an ongoing basis. Please always visit www.rcog.org.uk for the most up-to-date version of this guideline.