

Patient information from BMJ

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Fertility problems: some reasons

Definitions of fertility problems vary in different countries. But couples are usually diagnosed as having fertility problems if they have been trying for a baby without success for between one and two years.

If you're a woman aged over 35, your doctor might want to do some tests and perhaps offer treatment after as little as six months.

What happens if you have fertility problems?

For people trying to have a child, facing the possibility of fertility problems can be very stressful. You might worry that you'll never be able to have a baby.

But fertility problems are common and there are treatments that can help. The first thing you and your doctor need to find out is why you are having problems.

For a woman to get pregnant, several things need to happen at the right time.

- The woman has to produce an egg
- The man has to produce healthy sperm
- The egg has to travel from the woman's ovary into the fallopian tube
- The couple have to have sex around the time the egg is released
- The sperm have to swim up the vagina and womb (uterus) into the fallopian tube towards the egg
- The egg has to be fertilised by the man's sperm
- The fertilised egg has to embed (plant itself) in the woman's womb.

It can take time for couples to achieve a pregnancy. Most couples trying to get pregnant are successful within a year. But if you have been trying for more than a year without success, you may have fertility problems.

There are many reasons why a couple may find it hard to get pregnant. One or both partners may have a problem that doctors can identify with tests.

Sometimes, doctors can't work out why you're finding it hard to get pregnant. This is called unexplained infertility and it affects about 10 in 100 couples.

Doctors now think that unexplained infertility is probably caused by a small problem in each partner. On their own the problems wouldn't matter. But if both partners have something slightly wrong it affects the chance of getting pregnant.

If you have unexplained fertility, you will probably be offered treatment that may help you both.

Problems getting pregnant: women

Here are the main reasons why women find it hard to get pregnant:

- Your ovaries may not be releasing eggs (ovulating) regularly. This is the main problem
 for one third of women. One of the most common reasons is a condition called polycystic
 ovary syndrome (PCOS). PCOS is caused by an imbalance in your hormones.
- About 15 in 100 women who haven't been able to get pregnant have damaged or blocked fallopian tubes. These are the tubes that connect your ovaries to your womb.
 If your tubes are blocked, eggs and sperm won't be able to reach each other to get fertilised.
 - These blockages are often caused by infections such as pelvic inflammatory disease (PID), chlamydia, or gonorrhoea. But these infections can usually be treated.
- About 5 in 100 women who can't get pregnant have a condition called endometriosis.
 This happens when cells from the lining of the womb (the endometrium) start growing outside the womb, sometimes around the ovaries or fallopian tubes.
- A woman's fertility (ability to get pregnant) decreases from the age of 35. It decreases more quickly once you are over 40.
- Some women go through the menopause early. The menopause is when your ovaries stop releasing eggs. It happens to all women, normally between the ages of 45 and 55. It can happen earlier in some women.
- A small number of women make too little or none of the two hormones that make ovulation happen. The hormones are called luteinising hormone (LH) and folliclestimulating hormone (FSH).
- Large non-cancerous growths called fibroids may stop a fertilised egg from growing in the womb.

Problems getting pregnant: men

Most men with fertility problems have one or all of these problems:

- Too few sperm (low sperm count)
- Abnormally shaped sperm, which are unable to move normally or fertilise an egg.
- Sperm that don't swim well.

A normal sperm sample should contain between 20 million and 300 million sperm per millilitre (mL for short). Half of these should be moving and well formed.

If you have fewer sperm than this you have a low sperm count. This doesn't mean that you and your partner can't get pregnant. It might just mean that it may take longer. But some men have very few sperm or none at all.

A low sperm count can be caused by

- an imbalance of hormones
- previous damage to the testicles
- an infection in the testicles, or
- your genes.

Some men make sperm but cannot get them into their partner's vagina. This may be because they cannot get an erection, or because they cannot release sperm (ejaculate) from their penis.

This could be because there is a blockage in the tubes between their testicles and penis. Or sperm could be going backwards into the bladder instead of towards the penis.

This can be caused by damage to the nerves. Nerve damage may be caused by several things, including diabetes or surgery.

How do doctors find out what's causing fertility problems?

If you and your partner haven't been able to have a baby, the first step is to see your doctor. It helps if you go together.

Your doctor will do a physical examination of both partners, and will do some tests. You should also be prepared to answer quite a lot of detailed personal questions.

Your doctor will ask:

- how long you've been trying to get pregnant and how often you have sex
- about any previous pregnancies
- about any sexually transmitted infections you've had in the past
- whether you've had surgery
- what contraception you used and when you stopped using it
- about any medicines you are taking
- about your general health and lifestyle.

If you are a woman your doctor will ask about your periods, and if you're a man you'll be asked if you've ever had mumps.

If you've been trying for a baby for over a year, you're likely to be referred to a specialist. You may be referred after six months of trying if you are a woman over 35, or if you have other health problems that make fertility problems more likely.

First tests for fertility problems

Your doctor will arrange for you both to have tests.

For women, this will be a blood test around day 21 of your menstrual cycle, to see if you are ovulating normally. The test measures levels of the hormones that are released when you ovulate.

You may also need blood tests earlier in your menstrual cycle to check hormone levels.

For men, this will be a semen test to see if you have a normal sperm count and if your sperm look healthy. You will need to give a semen sample, probably in the clinic.

If you are not ovulating normally or if you have problems with your sperm, your doctor can advise you about treatments that may help.

But if the tests showed you are ovulating normally and there are no problems with sperm, the woman will probably be advised to have more tests to look for other reasons why you may be having problems getting pregnant.

Further tests

There are several extra tests that doctors can use to find out more about your infertility, including more detailed hormone tests. It's important to discuss the advantages and disadvantages of any medical procedure with your doctor.

A **hysterosalpingography** is an x-ray that shows the inside of a woman's womb and fallopian tubes. It can check for blockages or growths. The test can be painful so your doctor may advise you to take painkillers beforehand.

In the test, the doctor will inject fluid into your womb through your cervix. The fluid shows up on x-ray, so the doctors can see whether it can flow through your womb and along your fallopian tubes.

If the tubes are blocked, the fluid will be unable to pass through them.

In a variation on this test, doctors sometimes use an **ultrasound probe** in your vagina to show images of your womb and fallopian tubes. Instead of x-rays, the test uses soundwaves (ultrasound).

Sometimes doctors use an ultrasound probe to watch the growth of eggs in the ovaries.

The doctor may want to get a better look at your ovaries, tubes, and womb by carrying out a **laparoscopy**. You'll probably need a general anaesthetic. The doctor inserts a tube with a camera on the end through a small cut in your abdomen.

A laparoscopy can help the doctor see if you have endometriosis, blocked or damaged tubes, cysts on your ovaries, or fibroids. The doctor can take a sample of tissue and may be able to remove growths or damaged tissue.

A laparoscopy is a more serious procedure and there's a small risk of bleeding or damage to other parts of your body. It may take you a while to recover.

If your other tests are normal you'll need to decide with your doctor whether to do this test. You may be able to have treatment without having this test first.

What treatments work?

If your tests show a clear reason for your fertility problems your doctor should be able to tell you which fertility treatment may give you the best chance of getting pregnant.

But it's important to know that there are no guarantees: treatment works for many people, but not for everyone.

And treatments for fertility problems are not always straightforward. You need to consider side effects, the emotional strain that treatment can put on you, and perhaps the cost of treatment.

If there is no clear reason for your fertility problems you may be advised to wait until you've been trying for a baby for two years. Then you might be offered in vitro fertilisation (IVF) treatment. Whether you are offered IVF will probably depend on your age.

The age above which women are not offered IVF varies in different countries. For example, in the UK, women are not usually offered IVF over the age of 40. The older a woman gets, the less likely IVF is to be successful.

There are things you can do yourselves to improve your chances of getting pregnant, whether or not you choose to have treatment:

- Maintain a healthy weight. Being overweight or underweight can reduce your chances of getting pregnant. Ask your doctor if you need to make changes to your weight.
- Stop smoking. Men and women who smoke are more likely to have problems getting pregnant, and more likely to miscarry.
- Have sex every two or three days, every week. This increases your chances of not missing a woman's fertile time.

See our leaflet Fertility Problems: What Treatments Work? to find out more about treatments.

What will happen?

What you decide to do about your fertility problems is a very personal matter. It will depend on how important it is for you to have a child using your own eggs and sperm. And some couples are prepared to have more tests and treatment than others.

Even without treatment, some couples go on to conceive. Every month, about 1 or 2 in every 100 couples with fertility problems become pregnant without any medical treatment.

If you have treatment, your chances of success will depend on several things:

- The woman's age (treatments are less successful in women over 35)
- The cause of your infertility
- The type of treatment you have

The centre where you're treated. Some clinics have better success rates than others.

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