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# Intrauterine System

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The intrauterine system (IUS) is a very effective method of contraception. There are two types of IUS available in the UK - Mirena® and Jaydess®. Mirena® may also be used to treat heavy periods (menorrhagia). The IUS sits inside the womb (uterus). Once fitted, it works as a contraceptive for three (Jaydess®) or five (Mirena®) years. Most women who use an IUS have no problems with it. It is sometimes called a 'hormone coil' because in the 1960s some intrauterine contraceptives were coil-shaped.

## What is the intrauterine system (IUS)?

The IUS is a small, plastic device which sits inside the womb (uterus). There are two threads attached to it which pass out through the neck of the womb (cervix) and lie in your vagina (see diagram below). These allow you to check it is still there. They also mean it can be removed easily. It looks like an [intrauterine contraceptive device \(IUCD\)](#) - also known as the 'contraceptive coil' or copper IUCD. However, the IUS does not contain copper; it contains slow-release progestogen hormone. It is therefore called an intrauterine 'system' (IUS) and not an IUCD.

There are two types of IUS available in the UK. They are called Mirena® and Jaydess®. They are T-shaped (the two side arms fold flat for insertion and fold up for removal) and about the length of a matchstick. The inside of the womb itself is only a little longer than a matchstick, so the IUS fits neatly inside. The IUS can be placed quite easily into a woman's womb by a trained doctor or nurse.

Mirena® and Jaydess® are very similar but Jaydess® is smaller and has a lower dose of hormone loaded on it. This is why it is only effective for three years.

The intrauterine system can also be used to provide the progestogen part of hormone replacement therapy.

## How does the intrauterine system (IUS) work as a contraceptive?

It works differently to the copper intrauterine contraceptive device (IUCD) because instead of copper it contains a progestogen hormone. The hormone thickens the mucus in the neck of the womb (cervix). This forms a plug which stops sperm getting through to the womb (uterus) to fertilise an egg. The hormone also makes the lining of your womb very much thinner. This makes it unlikely that a fertilised egg will be able to implant there. (Also, as a consequence, it makes your periods very much lighter - indeed they may disappear altogether.) In some women the IUS suppresses ovulation, so that it happens less often or not at all. However, this is usually not the case, even if your periods are absent when using the IUS.

## How effective is the intrauterine system (IUS) for contraception?

The IUS is very effective. Around 2 women in 1,000 using the IUS will become pregnant each year. (Compare this with rates of pregnancy when no contraception is used. More than 80 in 100 sexually active women who do not use contraception become pregnant within one year. This figure rises to 95 in two years.)

## What are the advantages of the intrauterine system (IUS)?

Once a Mirena® IUS is inserted you no longer need to use other contraception for five years. A Jaydess® IUS needs replacing every three years. So, unlike users of the **contraceptive pill**, you do not have to think about contraception every day. The IUS does not interfere with having sex (intercourse) or with sex drive (libido). Although it contains progestogen, the quantity of the hormone which gets into your general system is very low. It does not usually therefore cause the side-effects which can occur with higher doses of hormones (for example, in **progestogen-only injectable contraceptives**).

Periods usually become lighter, less painful and often stop, unlike the copper IUCD. After 12 months most users only have a light bleed for one day per month, and about 1 in 5 users of the Mirena® IUS have no bleeding at all.

Fertility returns as soon as the IUS is removed, although regular periods (menstruation) sometimes take a few months to return.

The Mirena® IUS does not have to be used as contraception. It can also be used as a treatment for heavy periods, endometriosis and fibroids. Jaydess® IUS is not suitable to treat these conditions.

A Jaydess® IUS is narrower than a Mirena® IUS. This may make it less uncomfortable to fit.

## What are the disadvantages of the intrauterine system (IUS)?

Although the majority of women with an IUS have no problems, the following may occasionally occur:

### **Irregular bleeding**

You may have irregular bleeding for the first three to six months. This usually settles down. It is usually a light 'spotting' of blood which women can find a nuisance.

Heavier bleeding can occasionally occur. If you experience heavy bleeding or a marked change in bleeding pattern you should discuss this with your doctor. It may mean the IUS has come out without your realising it, or could be a sign of infection or pregnancy.

### **Ectopic pregnancy**

A pregnancy developing outside the womb (uterus), usually in the Fallopian tube, is known as an **ectopic pregnancy** and is very unusual with the IUS. This is because the IUS protects against this sort of pregnancy. However, if you do develop one-sided tummy (abdominal) pain with bleeding you should discuss this with a doctor.

### **Expulsion**

The IUS may come out without you noticing (expulsion). This happens to 1 woman in every 20. It usually happens in the first three months during your period. It is slightly more likely to happen if you have not had children or if the fitting was particularly uncomfortable.

It is a good idea to check you can feel the threads of the IUS after your period. If you cannot feel them, you should use extra precautions such as a condom, until your doctor has checked the IUS is still there.

If the IUS has come out in the last few days you may need emergency contraception. If the IUS could have come out more than a few days ago, and you are sexually active, the doctor will make sure you are not already pregnant before fitting another one or starting alternative contraception.

### **Damage to the womb**

The fitting of an intrauterine contraceptive can (very rarely) make a small hole in the womb - this is called perforation. It protrudes through the wall of the womb and can escape into the pelvis. This happens in fewer than 2 women per 1,000, usually at the time of fitting. It can cause pain, but this is not usually severe and often there is not pain. The main symptom is not being able to feel the threads.

You should tell your doctor or nurse if you can no longer feel the threads of your IUS. This can mean perforation has occurred. However, far more commonly it means either that the threads are tucked up inside the neck of the womb (cervix). Less commonly it means that the threads have come off the IUS. An **ultrasound scan** will be carried out to find a lost IUS. If ultrasound does not find the IUS, an **X-ray** will be ordered.

### Hormonal side-effects

Hormonal side-effects are uncommon. The progestogen released by the IUS mainly stays around the womb and very little gets into the bloodstream. So side-effects are less common than with the progestogen-only contraceptive pill and the contraceptive injection or implant.

If side-effects do occur, they tend to develop in the first 3-6 months. They then tend to ease and go. Examples of possible side-effects include:

- Mood swings.
- Reduced sex drive (libido).
- Fluid retention.
- Increase in acne.
- Breast discomfort.
- A slight increase in breast size - this can occur in the first few months but is usually temporary.

There is no evidence that women with an IUS put on weight.

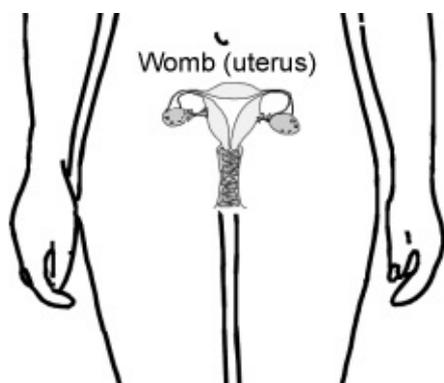
### Who cannot use the intrauterine system (IUS)?

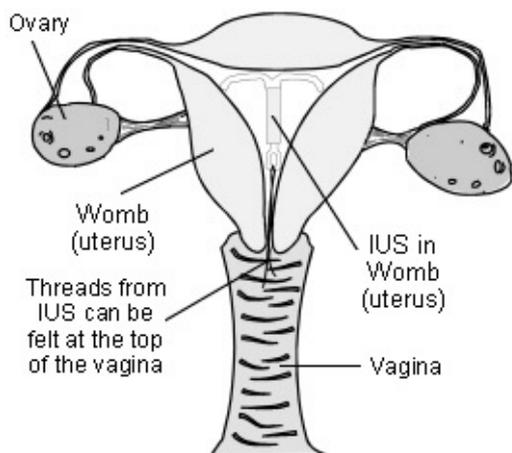
Your doctor or family planning nurse will discuss your medical history. Some illnesses may mean you cannot use progestogen-based contraceptives, such as the IUS. These include recent (in the preceding five years) breast cancer, some other cancers, very large fibroids or an infection which has not been treated. In practice, the number of women who cannot have the IUS inserted is small.

### How is the intrauterine system (IUS) fitted?

This is usually done towards the end of a period or shortly afterwards, as this tends to be more comfortable for you. Also, the doctor can be sure that you are not pregnant. However, it can be fitted at any time provided that you are certain you are not pregnant. You will need to have a vaginal examination. The doctor or nurse will pass a small instrument into your womb (uterus) to check its size and position. The IUS is then fitted using a small plastic insertion device.

You will be taught how to feel the threads of the IUS so you can check it is in place. It is best to check the threads regularly - for example, once a month just after a period.





The procedure can be uncomfortable. Just after the IUS is fitted some women have crampy pains like period pains for a few hours. These can be eased by painkillers such as paracetamol or ibuprofen. Light vaginal bleeding may also occur for a short while.

The Jaydess® IUS is smaller than a Mirena® IUS and so it may be more comfortable to have it inserted.

## Does the intrauterine system (IUS) work straightaway?

If the IUS is fitted within seven days after the start of a period, it is immediately effective as a contraceptive. If it is fitted after the seventh day then you need to use extra protection such as condoms for seven days.

## Follow-up

The doctor or nurse will usually want to check that there are no problems a few weeks after fitting your IUS. It is best done after your next period. After this, there is no need for any routine check until it is time to remove the IUS. However, see your doctor or nurse at any time if you have any problems or queries.

Most women have no problems and the IUS can remain in place for three or five years. However if you are 45 years or over at the time of fitting it can be left in place (and will remain effective) until your menopause.

If you are younger than this the IUS needs to be replaced after three or five years if you wish to continue to use this form of contraception.

## Removing and changing the intrauterine system (IUS)

The IUS can be removed at any time by a trained doctor or nurse.

You will be able to get pregnant as soon as it is removed. If you plan to have it removed, but do not want to get pregnant, then use other methods of contraception (such as condoms) from seven days *before* it is removed. This is because sperm can last up to seven days after you have had sex (intercourse) and can fertilise an egg **AFTER** the IUS is removed.

If you have had your IUS for its maximum effective time, it will need to be changed. You will need to use other forms of contraception from seven days *before* it is removed.

This is because occasionally when the IUS is removed the neck of your womb (cervix) clamps tightly shut for a while. The doctor cannot therefore immediately insert the new IUS. As sperm can last up to seven days in the womb (uterus) they could therefore fertilise an egg whilst you are waiting for your replacement IUS fitting.

You can use sanitary towels or tampons for periods with an IUS in place. A **cervical smear** can also be taken with an IUS in place. Sometimes, the smear result may show that there is an organism in the cervix; these are called actinomyces-like organisms. These are normally found and do not mean the IUS should be removed. If you have had pelvic pain together with signs of infection, such as a temperature, your doctor may consider removing the IUS.

You should consult a doctor if any of the following occur:

- Prolonged tummy (abdominal) pain after an IUS is inserted.
- Vaginal discharge with or without pain. This may indicate infection.
- You suspect that the IUS has come out or is coming out. It is usually possible to feel the threads of the IUS inside your vagina. If you cannot feel the threads then use other contraception (such as condoms or not having sex) until you have been checked by a doctor or nurse.

## Further help & information

### FPA

23-28 Penn Street, London, N1 5DL

Web: [www.fpa.org.uk](http://www.fpa.org.uk)

## Further reading & references

- **Intrauterine Contraception**; Faculty of Sexual and Reproductive Healthcare (2007)
- **Robinson R, China S, Bunkheila A, et al**; Mirena intrauterine system in the treatment of menstrual disorders: a survey of UK patients' experience, acceptability and satisfaction. *J Obstet Gynaecol.* 2008 Oct;28(7):728-31.
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- **Jaydess 13.5 mg intrauterine delivery system**; Bayer plc, Feb 2014

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