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The Mirena Intrauterine System

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The Mirena is a medicated Intrauterine Device (IUD) that is fitted by a doctor and remains in the womb for a period of up to five years. It is similar to an Intrauterine Contraceptive Device (IUCD) and this was the purpose for which it was first developed. However, it is different to other available IUCDs because it releases a tiny amount of a hormone called Levonorgestrel directly into the lining of the womb. This avoids many of the side effects that put women off this choice of contraception. It is also a very good alternative to The Pill as a method of contraception. Because the hormone is concentrated in the womb many of the side effects of The Pill are avoided.

Most IUCD's make a woman's periods heavier, but the Mirena actually makes periods much lighter than usual. Because of this, it can be used as a treatment for heavy periods, even in women who don't need contraception.

Levonorgestrel is used in contraceptive pills such as Logynon, Microgynon, Levlen, Triphasil, Triquilar, Nordette, Trifeme, Loette, Biphasil, Monofeme, Micolut and Micoval. In the Mirena, however, a much lower dose is released than when you take the Pill (about 1/7th strength), and it goes directly to the lining of the womb, rather than through the blood stream in high concentrations to other parts of the body.

Mirena for Heavy Periods

Many gynaecologists now suggest the Mirena as a treatment for heavy periods. After 3 months use, the average blood loss is 85% less, and by 12 months the flow is reduced by 97% every cycle. About one third of women using Mirena will not have any periods at all. Although women initially find it a bit unusual not having periods, it doesn't cause any problems. There is no 'build up' of blood, because the hormone in Mirena prevents the lining of the womb from building up at all. Often it is the excessive thickening of this lining that is the cause of the problems in the first place.

Mirena for Painful Periods and Endometriosis

Although the IUS isn't primarily used for painful periods, many studies have found that it does help in many cases (as often as 80% of the time). If painful periods persist, it is usual to rule out any other problems with a laparoscopy.

However, a common cause of painful periods is a condition called endometriosis. Mirena has emerged as a useful method of controlling this disease.

Fibroids

Large fibroids are a common cause of heavy periods. If they are so large, or in such a position that they make the inside of the womb an abnormal shape, it is unlikely that the Mirena will remain in place, and would not be helpful as a treatment. With small to moderate size fibroids, it is quite reasonable to use the Mirena.

Premenstrual syndrome (PMS)

PMS is a syndrome that is thought to be caused by the varying hormones of the menstrual cycle. The Mirena may be useful as it will allow a continuous dose of hormones to be given (oestrogen) without the worry of excessive stimulation of the lining of the womb. Usually oestrogens are combined with a course of a progestagen to prevent this, but many women experience PMS-like symptoms with progestogens taken by mouth. Because Mirena concentrates Levonorgestrel in the uterus it is much less likely to cause PMS-like symptoms.

Hormone replacement therapy (HRT)

There is a growing experience with the use of the Mirena for women who require hormone replacement therapy, but who have either bad PMS-like symptoms or erratic bleeding on normal HRT preparations. A Mirena, with oestrogen supplied by continuous implants, tablets or patches, provides good symptom relief with minimal side effects.

Mirena for Contraception

If 1000 women used the Mirena IUS for a year, only one would fall pregnant. This compares with about 10 for the normal IUCD, 20 for the Pill and 10-15 for the injection (Depot Provera). Mirena acts as a contraceptive in a number of ways: it makes the mucus at the neck of the womb (the cervix) much thicker, preventing sperm from getting through and it also makes the lining of the womb extremely thin, stopping implantation. In some women it prevents egg release (ovulation). For further information about the Mirena as a contraceptive the manufacturer's booklet or website is recommended.

Fitting the Mirena IUS

Before it is inserted, an examination or ultrasound is required to make sure the womb is a normal size and shape. Mirena is usually inserted within a week of beginning a period. This helps to reduce the chance of expulsion and irregular bleeding (as the womb lining is already quite thin at this time). It may be inserted immediately after a curette for miscarriage or termination of pregnancy, but it is usually deferred for 6 – 8 weeks after delivery of a baby.

A speculum is placed in the vagina, like when you have a normal smear test, and the Mirena is placed into the womb through the cervix. Most women do not find the insertion procedure very uncomfortable - usually much less than expected. Once the IUS is in place, you won't be able to 'feel' it in your womb. A further appointment should be made for six weeks to check your pattern of menstrual bleeding.

Be aware that menstrual bleeding is very common for 6 – 12 weeks after the Mirena is fitted. It is not usually heavy but there are *often few days in the first 3 months that you will be able to omit a tampon, pad or panty liner*.

Removing the Mirena

Removal involves a speculum examination again and Mirena is removed by pulling on the strings. This is only uncomfortable for a moment or two as it comes out. The hormone effect on the lining of the womb is reversed within a month and normal periods and fertility returns.

Side Effects

Bleeding Problems: These are without a doubt the most common problem associated with the Mirena. It takes about 3 months for the lining of the womb to thin down and during this time bleeding can be erratic but rarely heavy. It almost always settles after 3 - 6 months. During the first month, most users experience prolonged bleeding of more than 8 days duration but, by the third month, only 3% have prolonged bleeding.

Expulsion: In the early months of use, there is a small chance that the Mirena may dislodge and come out, either in part or altogether. There may be symptoms such as bleeding or persistent pain not relieved by simple painkillers, or it might be passed without any discomfort at all.

Hormonal problems: Although Mirena delivers its hormone directly to the lining of the womb, it does lead to a slight increase in synthetic progestogen levels in the blood stream. The levels are much lower than that found with the progestagen only pill (POP) and usually don't lead to side effects. If they do occur, most often they are mild and only last a couple of months. Hormonal side effects may included headache, water retention and breast tenderness.

Ovarian cysts: Progestagen hormones increase the chance of benign, simple ovarian cysts. Overall the risk is about 3 times higher (1.2% or about one women in every hundred in IUS users compared to 0.4% or one in every two hundred women not using the IUS). These cysts most often do not require any treatment and resolve spontaneously over 2-3 months. It is usual to arrange follow-up ultrasound scans over this time if they do occur.

Pelvic Infection: In general IUCD's increase the risk of infection of the womb, tubes and other pelvic organs. Studies looking at Mirena suggest that this may not be the case, with this IUD being protective against infection, particularly in the age group most at risk. The actual risk of infection is low, at less than 1% with 5 years' use.

My Experience

I provided the Mirena IUS to more than 150 women between 2001 and 2006. Eight out of every 10 women were very satisfied with the effects. Comments have included: “No periods to speak of at all”, “Fantastic”, “Changed my life” and “Best thing I ever did”.

Three women experienced expulsion of the Mirena but two of those have it another successfully replaced. Five women have requested its removal, three because of unremitting cramps and three because of perceived hormonal side effects. A few women have chosen to have a hysterectomy rather than continuing to use the Mirena. In a few others the use of a Mirena for between 3 and 6 months before hysterectomy enabled them to build up their iron stores and improved their blood count. This made recovery from the operation much easier.

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