Intrauterine Device (IUD) for Birth Control

An IUD is a small, T-shaped plastic device that is wrapped in copper or contains hormones. The IUD is inserted into your uterus by your doctor. A plastic string tied to the end of the IUD hangs down through the cervix into the vagina. You can check that the IUD is in place by feeling for this string. The string is also used by your doctor to remove the IUD.

Types of IUDs

- **Hormonal IUD**. The hormonal IUD, such as Mirena or Skyla, releases levonorgestrel, which is a form of the hormone progestin. The hormonal IUD appears to be slightly more effective at preventing pregnancy than the copper IUD. There are two hormonal IUDs—one works for 5 years, and the other works for 3 years.

- **Copper IUD**. The most commonly used IUD is the copper IUD (such as Paragard). Copper wire is wound around the stem of the T-shaped IUD. The copper IUD can stay in place for up to 10 years and is a highly effective form of contraception.

How it works

Both types of IUD prevent fertilization of the egg by damaging or killing sperm. The IUD also affects the uterine lining (where a fertilized egg would implant and grow).

- **Hormonal IUD.** This IUD prevents fertilization by damaging or killing sperm and making the mucus in the cervix thick and sticky, so sperm can't get through to the uterus. It also keeps the lining of the uterus (endometrium) from growing very thick.[1] This makes the lining a poor place for a fertilized egg to implant and grow. The hormones in this IUD also reduce menstrual bleeding and cramping.

- **Copper IUD**. Copper is toxic to sperm. It makes the uterus and fallopian tubes produce fluid that kills sperm. This fluid containswhite blood cells, copper ions, enzymes, and prostaglandins.[1]

Insertion

You can have an IUD inserted at any time, as long as you are not pregnant and you don't have a pelvic infection. An IUD is inserted into your uterus by your doctor. The insertion procedure takes only a few minutes and can be done in a doctor's office. Sometimes a local anesthetic is injected into the area around the cervix, but this is not always needed.

IUD insertion is easiest in women who have had a vaginal childbirth in the past.

Your doctor may have you feel for the IUD string right after insertion, to be sure you know what it feels like.

What To Expect After Treatment

You may want to have someone drive you home after the insertion procedure. You may experience some mild cramping and light bleeding (spotting) for 1 or 2 days.

Follow-up

Your doctor may want to see you 4 to 6 weeks after the IUD insertion, to make sure it is in place.

Be sure to check the string of your IUD after every period. To do this, insert a finger into your vagina and feel for the cervix, which is at the top of the vagina and feels harder than the rest of your vagina (some women say it feels like the tip of your nose). You should be able to feel the thin, plastic string coming

out of the opening of your cervix. It may coil around the cervix, which can make it difficult to find. Call your doctor if you cannot feel the string or the rigid end of the IUD.

If you cannot feel the string, it doesn't necessarily mean that the IUD has been expelled. Sometimes the string is just difficult to feel or has been pulled up into the cervical canal (which will not harm you). An exam and sometimes an ultrasound will show whether the IUD is still in place. Use another form of birth control until your doctor makes sure that the IUD is still in place.

If you have no problems, check the string after each period and return to your doctor once a year for a checkup.

Why It Is Done

You may be a good candidate for an IUD if you:

- Do not have a pelvic infection at the time of IUD insertion.
- Have only one sex partner who does not have other sex partners and who is infection-free. This means you are not at high risk forsexually transmitted infections (STIs) or pelvic inflammatory disease (PID), or you and your partner are willing to also use condoms.
- Want an effective, long-acting method of birth control that requires little effort and is easily reversible.
- Cannot or do not want to use birth control pills or other hormonal birth control methods.
- Are breast-feeding.

The copper IUD is recommended for emergency contraception if you have had unprotected sex in the past few days and need to avoid pregnancy **and** you plan to continue using the IUD for birth control. As a short-term type of emergency contraception, the copper IUD is more expensive than emergency contraception with hormone pills.

How Well It Works

The IUD is a highly effective method of birth control.[1]

- When using the hormonal IUD, about 2 out of 1,000 women become pregnant in the first year.[2]
- When using the copper IUD, about 6 out of 1,000 women become pregnant in the first year.[2]
- Most pregnancies that occur with IUD use happen because the IUD is pushed out of (expelled from) the uterus unnoticed. IUDs are most likely to come out in the first few months of IUD use, after being inserted just after childbirth, or in women who have not had a baby.

Advantages of IUDs include cost-effectiveness over time, ease of use, lower risk of ectopic pregnancy, and no interruption of foreplay or intercourse.[1]

Other advantages of the hormonal IUD

Also, the hormonal IUD:

- Reduces heavy menstrual bleeding by an average of 90% after the first few months of use.[1]
- Reduces menstrual bleeding and cramps and, in many women, eventually causes menstrual periods to stop altogether. In this case, not menstruating is not harmful.
- May prevent endometrial hyperplasia or endometrial cancer.

- May effectively relieve endometriosis and is less likely to cause side effects than high-dose progestin.[3]
- Reduces the risk of ectopic pregnancy.
- Does not cause weight gain.

Risks

Risks of using an intrauterine device (IUD) include:

- **Menstrual problems.** The copper IUD may increase menstrual bleeding or cramps. Women may also experience spotting between periods. The hormonal IUD may reduce menstrual cramps and bleeding.[1]
- **Perforation.** In 1 out of 1,000 women, the IUD will get stuck in or puncture (perforate) the uterus.[1] Although perforation is rare, it almost always occurs during insertion. The IUD should be removed if the uterus has been perforated.
- **Expulsion.** About 2 to 10 out of 100 IUDs are pushed out (expelled) from the uterus into the vagina during the first year. This usually happens in the first few months of use. Expulsion is more likely when the IUD is inserted right after childbirth or in a woman who has not carried a pregnancy.[1] When an IUD has been expelled, you are no longer protected against pregnancy.

Disadvantages of IUDs include the high cost of insertion, no protection against STIs, and the need to be removed by a doctor.

Disadvantages of the hormonal IUD

The hormonal IUD may cause noncancerous (benign) growths calledovarian cysts, which usually go away on their own.

The hormonal IUD can cause hormonal side effects similar to those caused by oral contraceptives, such as breast tenderness, mood swings, headaches, and acne. This is rare. When side effects do happen, they usually go away after the first few months.

Pregnancy with an IUD

If you become pregnant with an IUD in place, your doctor will recommend that the IUD be removed. This is because the IUD can cause miscarriage or preterm birth (the IUD will not cause birth defects).

When to call your doctor

When using an IUD, be aware of warning signs of a more serious problem related to the IUD.

Call your doctor now or seek immediate medical care if:

- You have severe pain in your belly or pelvis.
- You have severe vaginal bleeding.
- You are passing clots of blood and soaking through your usual pads or tampons each hour for 2 or more hours.
- You have vaginal discharge that smells bad. You have a fever and chills.
- You think you might be pregnant.

Watch closely for changes in your health, and be sure to contact your doctor if:

- You cannot find the string of your IUD, or the string is shorter or longer than normal.
- You have any problems with your birth control method.
- You think you may have been exposed to or have a sexually transmitted infection.

What To Think About

The IUD is most likely to work well for women who have been pregnant before. Women who have never been pregnant are more likely to have pain and cramping after the IUD is inserted. They are also more likely to expel the IUD. But they can still use the IUD.

Pelvic inflammatory disease (PID) concerns have been linked to the IUD for years. But it is now known that the IUD itself does not cause PID. Instead, if you have a genital infection when an IUD is inserted, the infection can be carried into your uterus and fallopian tubes. If you are at risk for a sexually transmitted infection (STI), your doctor will test you and treat you if necessary, before you get an IUD.

Intrauterine devices reduce the risk of all pregnancies, including ectopic (tubal) pregnancy. But if a pregnancy does occur while an IUD is in place, it is a little more likely that the pregnancy will be ectopic. Ectopic pregnancies require medicine or surgery to remove the pregnancy. Sometimes the fallopian tube on that side must be removed as well.

IUD use and medical conditions

An IUD can be a safe birth control choice for women who:[4]

- Have a history of ectopic pregnancy. Both the copper IUD and hormonal IUD are appropriate.
- Have a history of irregular menstrual bleeding and pain. The hormonal IUD may be appropriate for these women and for women who have a bleeding disorder or those who take blood thinners (anticoagulants).
- Have diabetes.
- Are breast-feeding.
- Have a history of endometriosis. The hormonal IUD is a good choice for women who have endometriosis.

Complete the special treatment information form (PDF) to help you understand this treatment.

Citations

1. Grimes DA (2007). Intrauterine devices (IUDs). In RA Hatcher et al., eds., Contraceptive Technology, 19th ed., pp. 117–143. New York: Ardent Media.
2. Trussell J (2007). Choosing a contraceptive: Efficacy, safety, and personal considerations. In RA Hatcher et al., eds., Contraceptive Technology, 19th ed., pp. 19–47. New York: Ardent Media.
3. Fritz MA, Speroff L (2011). Endometriosis. In Clinical Gynecologic Endocrinology and Infertility, 8th ed., pp. 1221–1248. Philadelphia: Lippincott Williams and Wilkins.
4. Speroff L, Darney PD (2011). Intrauterine contraception. In A Clinical Guide for Contraception, 5th ed., pp. 239–279. Philadelphia: Lippincott Williams and Wilkins.