

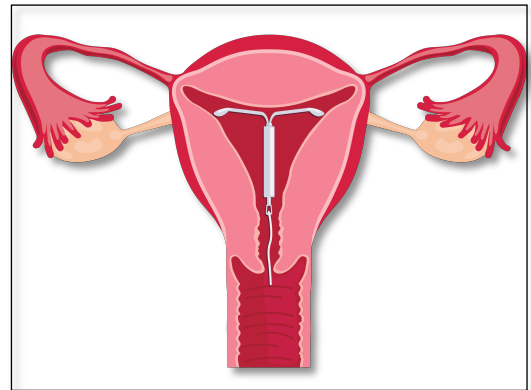
## INTRAUTERINE DEVICES (IUDs)

Lauren Caldwell, MD

### Introduction

An IUD, or an Intrauterine Device, is a small, flexible T-shaped device which is placed inside the uterus by your doctor. There are several different brands of IUDs available, so you may also see names like Mirena, Liletta, Kyleena, Skyla or Paragard used.

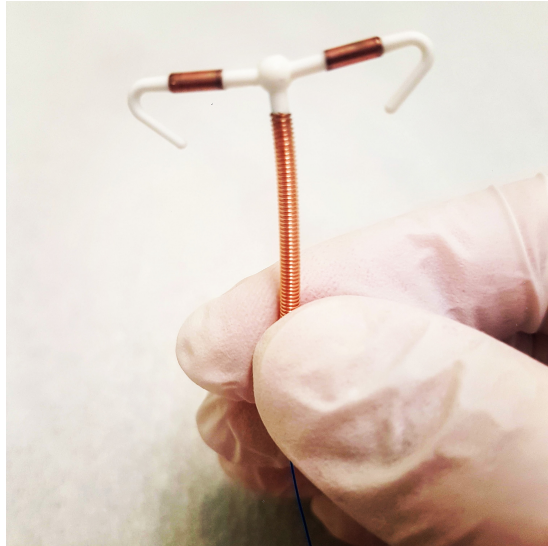
There are two main reasons a person may decide to have an IUD. The first is for contraception, or prevention of pregnancy. The other reason is for the benefits of the hormones inside some types of IUDs.



### Paragard IUD

The Paragard IUD is the only one which does not use hormones. Instead, it is made with copper wire wrapped around the T-shaped plastic device. People who have an allergy to copper should not get the Paragard IUD. It prevents pregnancy by inhibiting, or stopping, sperm from moving into the uterus. It does a great job of preventing pregnancy, with a 10-year failure rate of 1.9 per 100 people. This means that over 10 years, only 1.9 people out of 100 people using the Paragard IUD will become pregnant.

The Paragard IUD can also be used for emergency contraception, or birth control. This means it could be placed by your doctor within 5 days of unprotected sex (sex without a condom or any other form of birth control) and still work very well at preventing a pregnancy. In fact, 99.9% of people who use it this way are able to prevent pregnancy after unprotected sex.



Most people do not use the Paragard IUD for reasons other than preventing pregnancy. The most common reason for a doctor to remove the Paragard IUD is because it is causing heavy bleeding during menses, or a period. This doesn't happen to everyone who has the Paragard IUD, but it is more common than with the hormonal IUD. If you already have heavy bleeding or lots of pain during your period, the Paragard IUD may not be the best option for you.

Once a Paragard IUD is placed by your doctor, it can stay inside the uterus for up to 12 years. It will keep working to prevent pregnancy the whole time.

## Hormonal IUDs

All of the other kinds of IUDs have a hormone called Levonorgestrel in them. Levonorgestrel is a synthetic, or man-made, hormone called progestin. This hormone is a lot like progesterone, which is naturally made in the human body. Mirena, Liletta, Kyleena and Skyla IUDs all have some of this hormone inside the plastic T-shaped device. The difference between them is the amount of hormone in the device, and how much it releases into the body each day. This also changes how long they can stay inside the uterus to prevent pregnancy.

Name (Type of IUD)	Total Amount of Hormone	Hormone Released Per Day	How Many Years Can it Stay in?
Mirena	52mg	20mcg	5
Liletta	52mg	18.6mcg	4
Kyleena	19.5mg	17.5mcg	5
Skyla	13.5mg	14mcg	3

All four of these IUDs prevent pregnancy by making the mucus of the cervix (the part of the uterus that connects the vagina to the uterus) a lot thicker. This makes it much harder for sperm to get through the cervix and into the uterus. Just like the Paragard IUD, they do a great

job of preventing pregnancy. Out of 100 people using a hormonal IUD, less than 1 of them will get pregnant every year.

Some people use a hormonal IUD for reasons other than preventing pregnancy. They can be very helpful for people who have heavy bleeding or lots of pain during their period. Heavy bleeding and pain may happen because of many different conditions such as:

- Adenomyosis (uterine lining tissue in the muscle of the uterus)
- Fibroids (growths in the uterus)
- Endometriosis (uterine lining tissue outside of the uterus), or
- Anovulatory bleeding (heavy bleeding because of irregular periods).

The hormonal IUD keeps the tissue lining the inside of the uterus (also called the endometrium) very thin. This tissue lining is what come out as blood during a period each month. Since it stays so thin with the help of a hormonal IUD, there is much less bleeding during a period. In fact, many people don't have a period at all with a hormonal IUD.

Studies have shown that the amount of blood lost with each period is much less with a hormonal IUD in place, and that a hormonal IUD is better at decreasing blood loss than birth control pills. For people who have anemia (low blood counts) because of their heavy periods, a hormonal IUD may help to decrease their blood loss each month.

Keeping the tissue inside the uterus thin can have other benefits as well. A major risk factor for developing endometrial cancer, or cancer of the uterus, is a having a thick layer of tissue inside the uterus. The hormonal IUD can help to decrease this risk by keeping this tissue layer very thin. People who already have a type of abnormal changes of their uterine lining called hyperplasia without atypia also have an increased risk of developing cancer of the uterus. The hormonal IUD can sometimes be used for treatment for these people. In 96% of these cases, the lining goes back to normal with the help of the hormonal IUD.

Some people have big surgeries because of their painful or heavy periods, like a hysterectomy (removal of the uterus). If a person would like to avoid a big surgery, or if they have other medical problems which would make surgery more complicated, a hormonal IUD may be a good choice for them. An IUD can be placed in a regular office visit, and doesn't have as many risks as surgery. It is also reversible, and can be removed at any time.

Once a hormonal IUD is placed by your doctor, it can stay inside the uterus for 3 to 5 years, depending on which kind you have. It will keep working to prevent pregnancy and to keep the tissue lining inside the uterus thin the whole time it is in place.

## Getting an IUD

Let your doctor know if you would like to have an IUD placed. They can tell you more about which kind they think is best for you. An IUD can be placed during a clinic or office visit. You will lay on the exam table like you do for a regular pelvic exam or pap smear. Your doctor will use a speculum to look inside the vagina and see the cervix. The cervix connects the vagina to the uterus. Another tool is used to hold the cervix in place. Some people feel a small pinch or pain when this tool is used. Next, a small, thin instrument is used to measure how long the uterus is. Many people feel a cramp when this happens. Then, the IUD is placed inside the uterus.

The IUD can be placed anytime during a person's monthly cycle, as long as they are not pregnant or being treated for a sexually transmitted infection like chlamydia or gonorrhea at the time. It can also be placed just after an abortion. Sometimes an IUD can be placed right after a delivery of a baby, unless there was an infection during labor, or more bleeding than usual. If it can't be placed right after delivery, it can usually happen 4-6 weeks afterwards. Some people have cramping pain and some bleeding or spotting after getting an IUD placed. For most people, this will go away after 3 to 6 months.

The small, flexible, T-shaped part of the IUD stays inside the uterus. There are 2 small strings at the bottom of the device that go through the cervix and into the vagina. This means that when your doctor uses a speculum to look inside the vagina and see the cervix, they can also see the strings of the IUD. This helps your doctor to check that the IUD is in the right place. People can also check at home to be sure they feel their IUD strings just outside of the cervix by putting a clean finger inside the vagina. You will not be able to see the IUD strings outside of the vagina. Most people do not have pain or discomfort during sex because of their IUD or IUD strings. If you think your partner can feel the strings during sex, let your doctor know and they may be able to trim them for you.

Just like during any other procedure, there are some risks of IUD placement. Sometimes while placing the IUD inside the uterus, the tools go through the uterus rather than staying on the inside. This is called a uterine perforation. If this happens, your doctor will have to stop the procedure and you will not be able to get an IUD that day. The hole, or perforation, will heal on its own over time. Out of 1,000 IUD insertions, there will be around 1 perforation. Another risk is bleeding from the places that tools are used (like the cervix). Your doctor will make sure this bleeding stops before you leave the office.

Some people worry about risks of having an IUD in place. In general, these risks are very low. One of the risks is expulsion, meaning the IUD comes out of the uterus on its own. This happens 2-10% of the time during the first year after the IUD is placed. It is more likely to happen in younger patients, in people who have delivered babies before, just after a second trimester

(more than 14 weeks) abortion, or just after delivery of a baby. In very rare cases, an IUD can move out of the uterus and into the abdomen (belly). An ultrasound can help to check if the IUD is in the right place. If it is not, a same-day surgery may be needed to remove it.

If a person is using an IUD for contraception, or to prevent pregnancy, there is still a risk of them getting pregnant. A person who becomes pregnant with an IUD in place has a higher risk of having an ectopic pregnancy, or a pregnancy located outside the uterus, usually in the tube. This is a serious condition that must be treated as soon as it is diagnosed.

An IUD can be removed by your doctor by pulling on the IUD strings. This can be at the end of the approved number of years, or whenever the patient would like for it to be removed.

### Take Home Points:

- ✔ An intrauterine device (IUD) is a small device placed in the uterus for the prevention of pregnancy or for hormonal effects.
- ✔ IUDs are very good at preventing pregnancy.
- ✔ Hormonal IUDs may help to decrease blood loss and pain during periods.
- ✔ Having an IUD inserted and in place is relatively low risk.

### Recommended Resources:

- ✔ Planned Parenthood: <https://www.plannedparenthood.org/learn/birth-control/iud>
- ✔ ACOG: <https://www.acog.org/Patients/FAQs/Long-Acting-Reversible-Contraception-Intrauterine-Device-and-Implant>

### About The Author:



**Lauren Caldwell, MD** was born and raised in the suburbs of Dallas, Texas, and completed high school in Alpharetta, Georgia. She attended the University of Georgia where she earned her undergraduate degree in Music Performance, followed by her medical degree at the University of Virginia. She is currently a chief resident in Obstetrics and Gynecology at Medstar Washington Hospital Center/Georgetown University Hospital in Washington, DC.

The author reports no conflicts of interest.