

Young Women and Long-Acting Reversible Contraception

Safe, Reliable, and Cost-Effective Birth Control

In 2012, the American College of Obstetricians and Gynecologists (ACOG) revised its practice guidelines on Long-Acting Reversible Contraception (LARCs), including implants and IUDs. Based on research and expert opinions, the new guidelines advise that adolescents who are sexually active and at high risk of unintended pregnancy should be encouraged to consider LARCs as a contraceptive option.¹

LARCs are ideal pregnancy prevention options for many young women. These methods are safe, effective, inexpensive, and reversible, require little to no maintenance, and have much better compliance rates than other hormonal methods. Still, the use of LARCs is not widespread among young women. Youth serving professionals, educators and health care providers should know the facts about these methods.

TWO TYPES OF LARCS

Intrauterine Devices (IUDs): These small flexible plastic devices are inserted into the uterus to prevent pregnancy. There are two types of IUDs available in the United States; one uses hormones and the other releases copper. All IUDs prevent pregnancy by interfering with the movement of sperm toward eggs keeping the two from meeting. They may also change the lining of the uterus preventing implantation of a fertilized egg (though this theory has not been proven). IUDs must be inserted and removed by trained professionals.

Contraceptive implants: This hormonal method consists of a thin rod made from flexible plastic that is inserted just under the skin on a woman's upper arm. The implant releases a steady amount of progestin in order to prevent pregnancy (primarily by suppressing ovulation) for up to three years. Implants must be inserted and removed by trained professionals.

It is important to note that neither IUDs nor contraceptive implants protect against sexually transmitted infections (STIs).

INTRAUTERINE DEVICES (IUDS)

There are two types of IUDs available in the United States; a hormonal method that releases levonorgestrel, the progesterone hormone frequently used in birth control pills and one that contains no hormones but releases a small amount of copper instead. The hormonal method is sold under the brand name Mirena and the copper method is sold under the name ParaGard.

What It Is

- Both types of IUDs are small, T-shaped devices made out of flexible plastic that are inserted into the uterus, and both have very thin strings tied to the bottom that hang through the cervix.
- ParaGard (also called the Copper T 380 A) includes a copper wire that is wrapped around the base of the device. ParaGard can stay in place and remain effective for up to 10 years.²
- The top part of Mirena is made of a radiopaque plastic that can be seen in X-rays. It consists of a silicon cylinder that contains 52 mg levonorgestrel, a hormone that is gradually released over time. Mirena can stay in place and remain effective for up to five years.³

How It Works

- An IUD is inserted into the uterus through the cervix by a trained medical professional. In order for the device to fit through the cervix, the arms of the T are folded down during placement. The thin string at the bottom of the device hangs through the cervix after insertion throughout the duration of use. These strings are used for removal, and also allow a woman to check that the device is still in place.³
- Insertion usually takes place during a woman's menstrual cycle when the cervix is softest and an existing pregnancy is least likely. However, insertion may occur at any time in the cycle, including immediately postpartum or post-abortion.

“LARCs are over 99 percent effective at preventing pregnancy and can be used by almost all women, including adolescents and those who have never had children.”

- All IUDs prevent pregnancy by interfering with the movement of sperm toward eggs keeping the two from meeting.
 - It is thought that ParaGard inhibits sperm movement and causes white blood cells to produce a substance that is toxic to sperm.³
 - Mirena releases a hormone like those found in birth control pills. These hormones can prevent pregnancy by thickening cervical mucus which creates a barrier to sperm, slowing the progress of sperm toward the egg. Like other hormonal methods, Mirena may also prevent ovulation.³
- IUDs may also change the lining of the uterus preventing implantation of a fertilized egg (though this theory has not been proven).
 - Specifically, it is thought that Mirena makes the uterine lining thin thereby preventing implantation.³

How Well It Works

- IUDs are over 99 percent effective in preventing pregnancy.⁴ This means that of 100 couples who use an IUD as their primary form of birth control, only one couple (at most) will experience an unintended pregnancy within a year.
- In clinical trials from 2006–2008, Mirena was found to have a failure rate of 0.1 percent while ParaGard had a failure rate ranging from between 0.6–1.0 percent.⁴
- Once inserted correctly, users do not need to take any action in order to ensure that the IUD remains effective. Therefore, IUDs essentially remove the risk of user failure.

Cost Effectiveness

- IUDs are very cost effective. Though they have higher upfront costs than other

methods, these costs can cover pregnancy prevention for between five and 10 years.

- The cost of IUDs range from \$500 to \$1,000 upfront for the device and insertion. Removal may incur additional costs.⁵ These costs are often covered by insurance. Some women may also qualify for financial assistance for an IUD through Medicaid or other state programs.

Safety

- IUDs are safe for most women including adolescents and women who have not had children.³
- ParaGard is also safe for women who are breastfeeding and those who cannot use hormonal contraception for medical reasons.³

Side Effects

- Over half of young women experience discomfort at the time of insertion.¹ Some clinicians use a local anesthetic or recommend taking NSAIDs before the procedure. Taking Misoprostol 6 to 12 hours prior to insertion can help with cervical dilation.⁶
- IUDs can cause spotting and cramping for three to six months after insertion.³
- Between two percent and 10 percent of women who use IUDs experience an expulsion of the device from their uterus. If this happens a woman needs to return to her health care provider to have a new device inserted.³
- A rare but serious side effect involves the perforation of the uterus during IUD insertion, which can possibly allow the device to move outside of the uterus. This is estimated to occur in less than one out of 1,000 insertions.⁷
- Mirena may stop some women from menstruating. Some women see this as a benefit but others may be uncomfortable with this possibility.
- After an IUD has been removed, a woman may experience cramping.

Other Benefits

- Mirena greatly reduces the risk of ectopic pregnancy. It also helps to treat heavy menstrual bleeding and associated pain, irregular heavy bleeding, uterine fibroids, and iron deficiency, among other health issues.²

- ParaGard can be used as emergency contraception if inserted within five days after unprotected intercourse.⁸ It is more effective than hormonal pills used for emergency contraception.

Important Facts About IUDs

- **IUDs do not cause an abortion.** IUDs slow the movement of sperm toward the egg preventing fertilization. They are a method of contraception, not abortion.³
- **IUDs do not raise a woman’s risk of ectopic pregnancy.** In fact, women who use IUDs are at significantly reduced risk of ectopic pregnancy compared to women who are not using contraception. However, women who do become pregnant while an IUD is in place may have a higher ratio of ectopic to uterine pregnancies.³
- **If inserted properly, IUDs do not increase the risk of PID.** IUDs do not appear to increase the risk of upper-genital infections that can lead to PID. In some instances and with some women, the insertion process can introduce bacteria into a woman’s uterus. However, the risk of this is considered so small that health care providers do not recommend prophylactic antibiotics to prevent infection.³ Some people have concerns about the IUD and PID because of the Dalkon Shield an IUD with major design flaws that was on the market in the 1970s, but with today’s IUDs, PID is rare.
- **Women should be screened and tested for sexually transmitted infections (STIs) at the time of IUD insertion.** If there are visible STI symptoms, a woman should be treated and should get the IUD after the STI has cleared. If there are no symptoms, the device can be placed on the same day the test is done. If the test comes back positive for an STI, a woman should be treated without removing the device.³
- **IUDs are safe for most women, including women who have had children as well as adolescent women.** After the Dalkon Shield was linked to increased infertility in some women, medical professionals began to suggest that IUDs not be used by women who had not yet had children and/or wanted children in the future. In fact, when Mirena was first introduced the FDA only approved it for use in women who had already had children. This is no longer the recommended practice. In 2007, ACOG released a committee opinion that suggested that IUDs “should be considered as first-line choices” for teenagers.⁹ In 2012, the American College of Obstetricians and

Gynecologists released a committee opinion that LARCs are safe and appropriate methods for most women and adolescents and that adolescents should be encouraged to choose them.¹

CONTRACEPTIVE IMPLANTS

Implanon/Nexplanon are the brand names under which contraceptive implants are sold in the United States.

What It Is

- The contraceptive implant is a flexible plastic device that is four centimeters long (about the size of a match stick). It is inserted under the skin on a woman’s upper arm. It is recommended that women place it in their non-dominant arm.¹⁰
- The implant contains 68 mg of etonogestrel, a progestin that is released steadily for three years. It does not contain estrogen.¹⁰
- The company that makes Implanon has since developed Nexplanon, which is even easier to insert and remove. Implanon remains safe and will continue to be used in the United States until supplies run out at which point it will be replaced by Nexplanon.

How It Works

- Like other hormonal methods, implants prevent pregnancy by suppressing ovulation. Implants also thicken cervical mucus preventing sperm from entering the cervix and may change the lining of the uterus interfering with implantation.¹⁰
- If inserted at the proper time during a woman’s menstrual cycle, the implant will prevent pregnancy right away. In some cases, women may need to use a backup method of birth control for a week.
- Implants work for up to three years but can be removed at any time and fertility should return within six weeks.¹⁰ In one study, 90 percent of the women began ovulation within three to four weeks after removal.¹¹

“LARCs prevent pregnancy for 3-10 years. LARCs do not provide protection from HIV and STIs.”

“LARCs are safe, effective, cost-effective, reversible, and require little to no maintenance.”

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How Well It Works

- Implanon has the lowest failure rate among reversible contraceptive methods at 0.05 per cent. This means that out of 100 women who use Implanon as their primary method of contraception, one at most will become pregnant within a year.¹⁰
- It also has one of the highest continuation rates at 80 percent, meaning that the majority of women who choose this method continue to use it.¹⁰

Cost Effectiveness

- Implanon is a very cost effective method of contraception. Costs range from \$400 to \$800 for insertion and \$100 to \$300 for removal and include three-years of protection from pregnancy. These fees are often covered by insurance.¹² Some women may also qualify for financial assistance with contraceptive implants through Medicaid or other state programs.

Side Effects

- The most frequent side effect is changes to menstrual bleeding and irregular periods. In one study, after 90 days 33 percent of women had infrequent periods, 21 percent had amenorrhea (lack of periods), 16 percent had prolonged periods, and 6 percent had frequent/ normal periods.¹⁰
- Some studies have found that users experience a small increase in weight (about five pounds) over several years though these studies have not compared users to nonusers.¹⁰
- The number of users who experience ovarian cysts is higher among implant users than among those who are not on any form of hormonal contraception. These cysts usually resolve without treatment.
- Other side effects reported in clinical trials include headaches, mood swings, abdominal pain, loss of libido, and vaginal dryness.¹⁰

- Very rarely (in less than 1 percent of patients) infection and other serious complications occur at or around the time of insertion.¹⁰
- Like all hormonal methods, implants can also increase the risk of blood clots especially in patients with other risk factors such as those who smoke.¹⁰

Safety

- Implants are safe for most women, including adolescent women and those who have not yet had children.¹⁰
- Some women should not use implants, including those women with a history of blood clots, liver disease, breast or certain other cancers, or unexplained vaginal bleeding.¹⁰

Important Facts About Implants

- **Insertion and removal is not painful.** A health care provider numbs the area before inserting the single rod through an applicator. The insertion process takes less than one minute. When it is time to remove the implant, the health care provider numbs the area and makes a small incision. Removal only takes a couple of minutes.
- **Contraceptive implants are not noticeable to the naked eye and women do not feel them.** Implants are only noticeable or perceptible if the woman or someone else pushes on the area. However, removal may leave a small scar.¹⁰
- **A woman can become pregnant as soon as contraceptive implants are removed.** Whether women have their contraceptive implant removed at the end of the three years or earlier, once it has been removed a woman's fertility should return. Studies have found that most users will begin to ovulate within six weeks of removal.¹⁰ Women who have contraceptive implants removed should begin using a new method of contraception immediately if they do not wish to become pregnant. Contraceptive implants are NOT a form of sterilization or abortion.
- **Implants have no impact on bone mineral density.** In a study, there were no found cases of decreased BMD even with women who had not reached their peak bone mass.²³
- **Implants can be used on women of all shapes and sizes.** There have been no known failures because of weight conditions.¹¹

- **Implants may help relieve the symptoms of dysmenorrhea** (painful periods) and endometriosis in some women.¹⁰

COUNSELING ADOLESCENTS ABOUT LARCS

The counseling process is critical in helping teens understand how LARCs work and what to expect. Both the IUD and the implant can cause a shift in menstrual patterns as well as some initial discomfort, and counseling can prepare teens for what to expect in the first weeks after insertion—as well as reinforce the importance of using condoms to prevent HIV and STIs.¹

CONCLUSION

Long acting reversible contraceptives are safe and reversible, require little to no maintenance, and have much better compliance rates than other hormonal methods. For this reason they are ideal pregnancy prevention options for many young women. Health care providers, educators, and youth-serving professionals should include information about LARCs in discussions of birth control options with adolescents.

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Established in 1980 as the Center for Population Options, Advocates for Youth champions efforts to help young people make informed and responsible decisions about their reproductive and sexual health. Advocates believes it can best serve the field by boldly advocating for a more positive and realistic approach to adolescent sexual health.

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Advocates for Youth envisions a society that views sexuality as normal and healthy and treats young people as a valuable resource.

The core values of Rights. Respect. Responsibility.® (3Rs) animate this vision:

RIGHTS Youth have the right to accurate and complete sexual health information, confidential reproductive and sexual health services, and a secure stake in the future.

RESPECT Youth deserve respect. Valuing young people means involving them in the design, implementation and evaluation of programs and policies that affect their health and well-being.

RESPONSIBILITY Society has the responsibility to provide young people with the tools they need to safeguard their sexual health, and young people have the responsibility to protect themselves from too-early childbearing and sexually transmitted infections (STIs), including HIV.

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