



Association of
Reproductive
Health
Professionals

*A Quick Reference Guide
for Clinicians®*

Non-hormonal Contraceptive Methods

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Using This Guide

Nearly half of all pregnancies in the United States are unintended—either mistimed or unwanted—even though most US women use some form of contraception.¹ Experts estimate that at least half of all US women will experience an unintended pregnancy, and one in three will have an abortion by age 45.²

A wide array of highly effective hormonal and non-hormonal contraceptive methods are available to American women. Yet despite these options, many women prefer to use non-hormonal methods which, coupled with inconsistent, incorrect, and discontinued use, contribute to the prevalence of unintended pregnancy.

Why do women say they want to avoid hormones? They may be concerned about the safety of hormone use. They may fear side effects. They may perceive non-hormonal methods to be “more natural” and less disruptive of their body’s ecology and their libido.³

Avoidance of hormones is not always the issue when people choose methods that can be less reliable. Cost also plays an important role. A recent study called the Contraceptive Choice Project was conducted by researchers at Washington University in St. Louis. This study found that when cost and knowledge barriers were removed to long-acting reversible contraceptive (LARC) methods such as intrauterine devices and implants, women were more likely to choose them.⁵ Sixty-seven percent of the 9,256 women ages 14 – 45 who were enrolled in the prospective study chose a long-acting method. Two-thirds of adolescents, who represented approximately 20 percent of the total study population, also chose a LARC method.⁵ LARC users were highly likely to continue with and be satisfied with their method. Among women who chose a LARC method, 86 percent were still using this method at one year. Only 55 percent of women who chose non-LARC methods were still using their method at one year. More over women using LARC methods had the highest satisfaction at one year follow-up.⁶

Knowledge is power, and it’s important for women and health care providers to be aware that three of the seven most effective contraceptive methods available in the US: tubal occlusion or ligation, vasectomy (for men), transcervical sterilization (Essure® micro-inserts), two reversible IUDs (Mirena® and Paragard® “Copper-T”) and a reversible implant (Implanon®). Most of these methods are hormone-free, although Mirena and Implanon

do contain hormones. Other non-hormonal methods such as barrier and fertility-based awareness methods (Standard Days® and many others) also can be effective if they are used correctly and consistently, which often hinges on appropriate counseling and education. In the case of these less-effective methods, the guiding principle is that use of any method is better than use of no method at all, with its attendant 85 percent risk of unintended pregnancy.⁷

Interruptions in Contraceptive Use

The high risk of unintended pregnancy among Americans is often complicated by interruptions in contraceptive use. A number of factors cause these interruptions, including:

- misunderstanding of how to use the method;
- a change in health insurance status;
- challenges with accessing methods or contacting providers with questions about use or side effects;
- the effects of a significant life event;
- infrequent sexual activity; and
- misperceptions of risk of contraception as well as the risk of pregnancy.⁸

Interruptions in use also may be caused by providers' misperceptions about the appropriateness or safety of specific contraceptive methods for women with underlying medical conditions (see box). However, highly effective and user-independent methods of contraception such as sterilization and IUDs are especially important among these women approximately one-fourth of deaths during pregnancy in the United States are among women with pre-existing medical conditions.⁹

Conditions associated with increased risk for adverse health events as a result of unintended pregnancy

- Breast cancer
- Complicated valvular heart disease
- Diabetes: insulin-dependent; with nephropathy/retinopathy/neuropathy or other vascular disease; or of >20 years' duration
- Endometrial or ovarian cancer
- Epilepsy
- Hypertension (systolic >160 mm Hg or diastolic >100 mm Hg)
- History of bariatric surgery within the past two years
- HIV/AIDS
- Ischemic heart disease
- Malignant gestational trophoblastic disease
- Malignant liver tumors (hepatoma) and hepatocellular carcinoma of the liver
- Peripartum cardiomyopathy
- Schistosomiasis with fibrosis of the liver
- Severe (decompensated) cirrhosis
- Sickle cell disease
- Solid organ transplantation within the past two years
- Stroke
- Systemic lupus erythematosus
- Thrombogenic mutations
- Tuberculosis

Source: Reference 10

Patient-Provider Communication

Patient-provider discussions about contraceptive options are the strongest indicator of selection, adherence, and satisfaction with a method.¹¹ Appropriate counseling allows patients to select the best contraceptive method, based on their lifestyle, desire for children, desired family size, and intended timing for pregnancy.

This concise reference guide for clinicians provides brief information about all non-hormonal contraceptive methods currently available in the United States. It is designed to help health care providers quickly counsel women about choosing the most appropriate and effective non-hormonal contraception for them. The goal is to find a method that a woman will use consistently and effectively, and for many women, LARC methods such as the IUDs are ideal in this regard.

In this guide, effectiveness for each non-hormonal contraceptive method is expressed as a failure rate, or the percentage of women who can be expected to become pregnant within the first year they use that method. Effectiveness rates are given for typical use (actual use, including occasional, inconsistent, or incorrect use) of the method. The guide is separated into two sections—highly effective methods and other non-hormonal methods—and the methods are presented in order of efficacy from highest to lowest. Separate chapters in this guide are devoted to each of the following methods:

Section 1. Highly Effective Non-hormonal Methods

- Sterilization
 - Male sterilization (vasectomy)
 - Female sterilization (tubal ligation and microinserts)
- Intrauterine Devices (Copper T IUD)

Section 2. Other Non-hormonal Methods

- Barrier methods
 - Diaphragm
 - Cervical cap
 - Sponge
 - Male condom
 - Female condom
- Withdrawal
- Fertility awareness–based methods
- Spermicides
- Othercourse (also called “outercourse”—a range of sexual expression that does not include penile-vaginal intercourse)

Resources

Each section describes the method; presents information on its use, effectiveness, risks, and side effects; and concludes with a list of principal advantages and disadvantages of that method and counseling messages. Contraindications and precautions are listed for each method, based on information from the Medical Eligibility Criteria (MEC) for contraceptives from the Centers for Disease Control and Prevention (see box). Providers should carefully evaluate the risk/benefit ratio for use of the particular contraceptive by a woman with the relevant condition.

Medical Eligibility Criteria Categories

1 = A condition for which there is no restriction for the use of the contraceptive method.

2 = A condition for which the advantages of using the method generally outweigh the theoretical or proven risks.

3 = A condition for which the theoretical or proven risks usually outweigh the advantages of using the method.

4 = A condition that represents an unacceptable health risk if the contraceptive method is used.

Source: Reference 10

For a list of useful clinical resources on contraception, see ARHP's Reproductive Health Topic Area on Contraception, located at www.arhp.org/topics/contraception. Providers can refer patients to the ARHP Method Match tool, available at www.arhp.org/methodmatch/.

Although office visits are time-limited, health care providers have a clear responsibility to counsel their patients who are of reproductive age on contraceptive options, focusing on the most appropriate and effective methods that meet each woman's unique needs. Health care providers should factor in each patient's personal and sexual situation when counseling about contraceptive methods. The cost and insurance or Medicaid coverage for contraceptive methods are variable and may influence the choice for some women.

Many contraceptive methods do not protect against sexually transmitted infections (STIs). If a woman is at risk for STIs, providers should recommend dual contraception use (condom plus an additional method). A discussion about having a back-up method for situations such as missed pills or delayed access may help a patient avoid an unplanned pregnancy.¹²

The following abbreviations are used throughout this document:

- BBT – basal body temperature
- EC – emergency contraception
- FAB – fertility awareness based
- FC - female condom
- HIV – human immunodeficiency virus
- IUC – intrauterine contraception
- IUD – intrauterine device
- IUS – intrauterine system
- MEC – medical eligibility criterion
- NNS – no-needle/no-scalpel vasectomy
- NSV – no-scalpel vasectomy
- STIs – sexually transmitted infections (assumed to include HIV)
- TSS – toxic shock syndrome

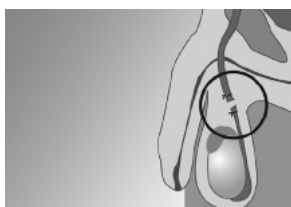
Section 1. Highly Effective Non-hormonal Methods Available in the US

Sterilization

Male Sterilization

Description

A permanent form of birth control, vasectomy has been used for decades for male sterilization. The outpatient procedure is highly effective and has few side effects. Vasectomy is exceedingly safe.



Use

Two techniques are used to perform vasectomies: no-scalpel vasectomy (NSV) and no-needle/no-scalpel vasectomy (NNV). NSV is considered the standard of care. In NSV, the physician uses a small needle to inject anesthesia into the skin and vas deferens. In NNV, the physician uses a piston-like instrument to force anesthetic into the tissues. After anesthetizing the area, the provider creates a small opening (a few millimeters) in the skin of the scrotal sac and locates the vas deferens. The vas are then ligated or cauterized; there is no need for sutures.

Sexual activity may be resumed about 1 week after the procedure or the time at which the patient feels comfortable. A backup contraceptive method is needed until the patient has had at least one negative sperm check at least 3 months after the procedure AND at least 20 ejaculations.¹³ These checks are essential to ensure the absence of residual sperm in the vas beyond the point of occlusion.

Effectiveness

This method is extremely effective, with a very low failure rate of 0.15 percent.⁷

Risks

- Reactions to local anesthesia are possible but rare.
- Some short-term tenderness and bruising may occur.

- Overall, vasectomy is associated with little pain and a low risk of infection.¹⁴

Side Effects

None

Contraindications and Precautions

Medical Eligibility Criteria for Male Sterilization

The MEC does not list any categorical contraindications for male sterilization (vasectomy), but stipulates that known allergy or hypersensitivity to any materials used for the procedure and uncertainty about desire to end fertility would restrict a person's eligibility for the procedure.¹⁰ Unwillingness to use another birth control method for the first 3 months after the procedure also should be considered a contraindication.

Advantages

- Long-term method (considered permanent)
- Discreet
- Low risk of side effects
- After up-front cost, no ongoing cost to maintain method
- No effect on hormonal milieu
- Very effective
- Quick recovery

Disadvantages

- Requires surgical procedure
- Requires trust between partners
- No protection against STIs

Counseling Messages

- Vasectomy should be considered a permanent method of male sterilization and should not be performed if there is a chance that the patient might desire to father children in the future.

- Reversal procedures exist but are technically complex, expensive, and have a variable success rate.
- Most activities can be resumed 3 days after the procedure. More strenuous activities, including sexual activity, can be resumed 1 week after vasectomy.
- Use of another form of contraceptive is essential until the patient has had at least one negative sperm check after at least 3 months AND at least 20 ejaculations.¹³
- This method does not protect against STIs.

Female Sterilization

Operative Sterilization

Description

Female surgical sterilization via tubal occlusion has been used for many years, is highly successful and safe, and has a low risk of complications. The fallopian tubes are occluded by ligation, blocking with clips or rings, or cauterization.



Use

Surgical tubal occlusion may be done as a laparoscopic procedure or as mini-laparotomy. These procedures are usually selected for sterilization after childbirth and can be performed on an outpatient basis as ambulatory surgery. Laparotomy, or an *open tubal ligation*, requires a hospital stay and is less commonly performed for sterilization purposes.

Because the hormonal milieu is unaffected by these surgeries, women continue to have normal menstrual cycles, and there is no evidence to suggest that the timing of menopause is affected in older women.

After the outpatient procedures, women may resume having sexual intercourse as soon as they feel comfortable.

Effectiveness

This method is effective immediately and has a very low (0.5 percent) failure rate.⁶

Risks

- Potential complications associated with anesthesia and surgery.
- The risk of unintended pregnancy with this method is less than 1 percent.⁷

Side Effects

- Some discomfort after surgery.

Contraindications and Precautions

Medical Eligibility Criteria for Operative Female Sterilization

The MEC does not list any categorical contraindications for operative female sterilization but stipulates that known allergy or hypersensitivity to any materials used for the procedure and uncertainty about desire to end fertility would restrict a person's eligibility.¹⁰ Pregnancy or suspected pregnancy, and an inaccessible or difficult-to-access uterus or fallopian tubes and other conditions that place women at high surgical risk, are described as precautions.

Advantages

- Highly effective
- Long-term method (considered permanent)
- Discreet
- Low risk of side effects
- After up-front cost, no ongoing cost to maintain method
- No effect on hormonal milieu
- Immediately effective; no back-up contraception necessary

Disadvantages

- Requires surgical procedure
- No protection against STIs

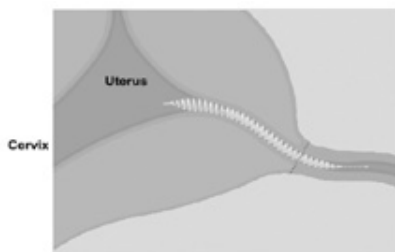
Counseling Messages

- Tubal occlusion should be considered a permanent end to a woman's fertility and should not be performed if there is a chance that the patient might desire childbearing in the future.
- Approximately 20 percent of women who undergo sterilization before age 30 experience regret.¹⁵
- Although procedures for reversal of surgical tubal occlusion exist, reversal is costly and has a low rate of success.
- This method does not protect against STIs.

Non-operative Sterilization

Description

Tubal microinserts are products for permanent female sterilization. One is currently available in the US, brand name Essure®, and a second, brand name Adiana®, was discontinued in April 2012.



Essure consists of two small metal coils around a mesh of polyethylene terephthalate (PET) fibers. When placed in the fallopian tube, the coils expand to hold the device in place and the PET fibers induce an inflammatory reaction. The inflammation stimulates tissue growth in the tubal walls, which occludes the lumen over the following 3–6 months.¹⁶

Use

A trained health care provider places the tubal microinserts, usually under local anesthesia or sedation. The hysteroscopic procedure takes about 15 minutes. Hysterosalpingogram is used to verify tubal occlusion about 3 months after the procedure.

Effectiveness

This method is extremely effective:

- Essure has a failure rate of less than approximately 0.2 percent.¹⁷
- Adiana's failure rate is about 1.1 percent.¹⁸

Risks

Because these sterilization products are new, the long-term effects are not known. Risks include:

- Perforation of the uterus and/or tube during insertion.
- Improper placement of the device.
- The risk of unintended pregnancy with these sterilization products ranges from 0.2 percent to 1.1 percent.^{17,18}

Side Effects

Side effects of non-surgical tubal occlusion include cramping, pain, and bleeding or spotting on the day of the placement procedure.

Contraindications and Precautions

Medical Eligibility Criteria for Non-operative Female Sterilization

The MEC does not list any categorical contraindications for non-operative female sterilization but stipulates that known allergy or hypersensitivity to any materials used for the procedure, including to the contrast medium used during the hysterosalpingogram, and uncertainty about desire to end fertility would restrict a person's eligibility.¹⁰ Pregnancy or suspected pregnancy and an inaccessible or difficult-to-access uterus or fallopian tubes are described as precautions.

Other contraindications and precautions include:

- Taking immunosuppressive medication
- Previous delivery, miscarriage, or abortion within 6 weeks
- Current pelvic infection
- Inaccessible, technically difficult uterus and fallopian tubes
- Hypersensitivity or allergy to nickel confirmed by a skin test (for Essure only)
- Unwillingness to use another birth control method for the first 3 months
- Unwillingness to return 3 months later to check for tubal occlusion
- Previous tubal ligation

Advantages

- Highly effective
- Long-term method (considered permanent)
- Discreet
- Low risk of side effects
- After up-front cost, no ongoing cost to maintain method
- No effect on hormonal milieu
- No surgery required

Disadvantages

- Requires visits to trained clinician for insertion and follow-up hysterosalpingogram
- Limited data on effectiveness, risks, and side effects
- No protection against STIs

Counseling Messages

- Microinserts are not designed for removal.
- Tubal occlusion should be considered a permanent end to a woman's fertility and should not be performed if there is a chance that the patient might desire childbearing in the future.
- Backup contraception is needed for 3 months or until tubal occlusion is verified.
- Patients should notify any health care professionals about their microinserts before any intrauterine procedures to avoid damaging the microinserts and other possible risks.
- Definitive data on effectiveness and risks are not yet available.
- This method does not protect against STIs.

Intrauterine Devices

Description

Intrauterine devices (IUDs), also referred to as intrauterine contraception (IUC) or the intrauterine system (IUS), are long-acting reversible contraceptive method that involves the placement of a small T-shaped device inside the uterus. The Copper T 380A (brand name ParaGard®) is a non-hormonal IUD (another IUD available in the US, brand name Mirena®, contains the hormone levonorgestrel). IUDs have among of the highest patient satisfaction and continuation rates.¹⁹



Use

The Copper T IUD contains polyethylene with copper along the vertical stem and horizontal arms. A polyethylene string is secured to the device, allowing for easy removal. It is placed in the uterus during an office visit.

- The Copper T IUD is approved for 10 years of use, although studies have shown it to be effective for as long as 20 years.²⁰
- The device causes an immune response that creates a hostile environment for sperm, thereby preventing fertilization of an ovum. In addition, it appears that the device also disrupts the normal division of oocytes and the formation of fertilizable ova.²¹
- The Copper T IUD can be used off-label as emergency contraception. It can be inserted up to 5 days after unprotected intercourse and reduces the risk of pregnancy by more than 99 percent.²²

Effectiveness

IUD area extremely effective. The Copper T IUD is effective immediately after insertion and has a failure rate of 0.8 percent with typical use.⁷

Risks

- Complications associated with IUDs include uterine perforation during the insertion procedure.
- Because bacteria may be introduced into the uterus during IUD insertion, there is a slight increased risk of infection during the first month of use.
- IUD poses no increased risk of infections or infertility associated with pelvic inflammatory disease (PID) beyond the first month of use.²⁴
- Expulsion of the device occurs in 2 to 10 percent of users within the first year.²³
- Expulsion may be more common in nulliparous women.²³
- Providers can consider obtaining gonorrhea and chlamydia cultures for women at risk of STIs at the time of IUD insertion. If results are positive, antibiotic treatment should be started, but there is usually no need to remove the device.²⁵
- The risk of unintended pregnancy with this method is less than 1 percent.⁷

Dispelling Myths About Emergency Contraception

IUDs can be safely used in:

- Women with multiple partners
- Teens
- Women who are immediately postpartum/postabortion
- Women with a history of STI or PID
- Nulliparous women
- Women with a history of ectopic pregnancy

Side Effects

- The copper-containing IUD increases the duration and amount of menstrual bleeding, resulting in approximately 50 percent greater blood loss.²⁶⁻²⁸
- Women with heavy or painful menses may not tolerate this IUD.

Contraindications, and Precautions

Medical Eligibility Criteria for use of the Copper T IUD

Category 4 (unacceptable health risk if the contraceptive method is used)	<ul style="list-style-type: none">• Pregnancy• Recent history of puerperal sepsis in postpartum women• Unexplained vaginal bleeding—for initiating method (designated category 2 for continuing method)• Gestational trophoblastic disease (designated category 3 if β-hCG levels are decreasing or undetectable)• Cervical cancer awaiting treatment (designated category 2 for continuing method)
Category 3 (theoretical or proven risks usually outweigh the advantages of using the method)	<ul style="list-style-type: none">• Current endometrial cancer (designated category 2 for continuing method)• Anatomical abnormality of uterus (designated category 2 if no distortion of uterine cavity or interference with IUD insertion)• Current PID—for initiating method (designated category 2 for continuing method)• Current purulent cervicitis, chlamydial infection, or gonorrhea—for initiating method (designated category 2 for continuing method); also designated category 2 if other STI or vaginitis is present)• Pelvic tuberculosis—for initiating method (designated category 3 for continuing method)

Continued

Category 3 (theoretical or proven risks usually outweigh the advantages of using the method)	<ul style="list-style-type: none"> • Systemic lupus erythematosus with severe thrombocytopenia—for initiating method (designated category 2 for continuing method) • Increased risk for STIs (designated category 2 if low personal risk for gonorrhea or chlamydial infection) • Solid organ transplantation with complications—for initiating method (designated category 2 for continuing method or if uncomplicated) • AIDS—for initiating method (designated category 2 for continuing method or if clinically well on antiretroviral therapy) • Antiretroviral therapy—for initiating method (designated category 2 if clinically well on therapy or for continuing method)
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Advantages

- Long-term method (10 to 20 years)
- Discreet
- Extremely effective
- After up-front cost, cost-effective for term of use
- Rapid return to fertility after removal
- Can be inserted any time during menstrual cycle when pregnancy can be excluded
- Can be inserted immediately after abortion or delivery (i.e., after placenta is delivered) or as long as 4 weeks afterward

- Lack of hormones makes IUDs appropriate for smokers older than age 35, postpartum women who are breastfeeding, and others with contraindications to estrogen or progestin

Disadvantages

- Requires visit to trained clinician for insertion and removal
- Some risk of expulsion within first year
- No protection against STIs
- May make menses heavier and longer

Counseling Messages

- The Copper T IUD is an excellent contraceptive choice for women who desire a highly effective and long-term but reversible method of contraception.
- Women who want reassurance about the placement of the device can check for presence of the string, although checking on a regular basis is not necessary.
- It is important for women to be aware of the warning signs of expulsion and infection.
- Follow-up visits after IUD insertion are important.
- This method does not protect against STIs.

Section 2. Other Non-hormonal Methods

Barrier Methods

Diaphragm

Description

The diaphragm is a flexible latex or silicone dome-shaped device filled with spermicide and inserted into the upper vagina covering the cervix. It creates a spermicidal barrier at the cervical opening.



Use

Diaphragms require a prescription and a fitting for the correct size, ranging from 50 to 95 mm diameter. They should be refitted after:²⁹

- Full-term pregnancy (and should not be used postpartum until uterine involution is complete)
- Abdominal or pelvic surgery
- Miscarriage, or abortion after 14 weeks of pregnancy (and should not be used until 6 weeks after a second-trimester abortion)
- Weight change after pregnancy of 20 percent or more

The clinician should teach each patient how to apply spermicide to the device, insert it, and check it for correct placement. Women should practice inserting and removing the device in the clinician's office until they feel comfortable with the procedure. They should also learn how to check the diaphragm for tears and holes before each use and to clean and store the device properly.

Women can insert the diaphragm up to 6 hours before intercourse and should leave it in place for at least 6 hours but no more than 24 hours after the last act of intercourse. If the patient engages in additional acts of intercourse before 6 hours have elapsed, she should insert fresh spermicide onto

the rim of the diaphragm with her finger without removing the device. She should not rinse the vagina or douche while wearing the diaphragm and for at least 6 hours after the last act of intercourse.

Women who are severely obese may have difficulty placing the diaphragm in the vagina. In addition, women with certain anatomical abnormalities, such as prolapse, may not be able to use the diaphragm.

Effectiveness

This method is fairly effective. Typical use is associated with a 12 percent failure rate.⁶

Risks

- The incidence of urinary tract infections (UTIs), bacterial vaginosis, and vaginal candidiasis may be increased in some women who use a diaphragm.³⁰
- The risk of unintended pregnancy with this method is 12 percent.⁷

Side Effects

None

Contraindications and Precautions

Medical Eligibility Criteria for the Diaphragm

(restrictions associated with HIV risk are largely related to spermicides, which must be used with the diaphragm, rather than to the device itself)

Category 4 (unacceptable health risk if the contraceptive method is used)	<ul style="list-style-type: none">• High risk for HIV infection
Category 3 (theoretical or proven risks usually outweigh the advantages of using the method)	<ul style="list-style-type: none">• HIV infection or AIDS• History of toxic shock syndrome• Antiretroviral therapy• Allergy to latex• Allergy to spermicides

Source: Reference 10

Advantages

- Relatively discreet (can be inserted ahead of time)
- Easily reversible
- After up-front cost, relatively low ongoing cost for spermicide.
- After initial fitting and instruction, no need for repeated visits to health care provider other than for replacement every 2 years.

Disadvantages

- Requires prescription
- Required with every act of intercourse
- Lower efficacy with typical use than some other methods
- Increased risk of UTIs and vaginal infections

- For some women, difficulty in learning insertion and removal techniques
- Obese women may have trouble inserting the device
- No protection against STIs

Counseling Messages

- Consistent and correct use is essential to the effectiveness of the diaphragm.
- Oil-based lubricants damage latex and therefore should never be used with a latex diaphragm.
- This method does not protect against STIs.
- Patients who use diaphragms should obtain emergency contraception (EC) in advance. (Note that patients who are less than 17 years old will need a prescription for EC.)

Cervical Cap

Description

The cervical cap is a small, bowl-shaped device that fits snugly over the cervix and has a strap for easy removal. The FemCap® silicone cervical cap is the only cervical cap that is currently available in the United States. Like the diaphragm, the cervical cap is designed for use with spermicide. It works by creating both a physical and a spermicidal barrier at the opening of the cervix. The FemCap is available in three sizes (22, 26, and 30 mm as measured by the inner diameter of the rim).



Use

To use the cervical cap, a woman places spermicide inside the bowl and the groove around the outside of the device and inserts the device into the vagina. The cap is pressed up against the cervix to form a snug seal. There is no need to insert more spermicide with additional acts of intercourse.

After the last act of intercourse, the cap should be left in place for at least 6 hours. The cervical cap should not be worn for more than 48 hours. In addition, FemCap is not recommended for use during menstruation. Women should not rinse the vagina or douche while wearing the cervical cap and for at least 6 hours after the last act of intercourse.

The 22 mm cap is intended for women who have never been pregnant. The 26 mm cap is intended for women who have been pregnant—even if for a short duration (i.e., had a miscarriage, abortion, or ectopic pregnancy). The 30 mm size is intended for women who have had a vaginal delivery of a full-term baby. The FemCap requires a prescription from a clinician. (For more information, visit www.femcap.com/clinician-information.html.)

- The cap should not be used postpartum until uterine involution is complete.
- The cap should not be used until 6 weeks after a second-trimester abortion.

- Women who are severely obese may have difficulty placing the cap in the vagina.
- Women with markedly distorted cervical anatomy should not use the cap.
- The cap should not be used by women with cervical intraepithelial neoplasia or cervical cancer awaiting treatment.³¹

Effectiveness

- This method is somewhat effective. Effectiveness data for the first-generation FemCap show a failure rate of 14 percent among nulliparous women and 29 percent among women who have had a vaginal delivery.³¹
- The failure rate for Prentif™ Cavity-Rim Cervical Cap (discontinued in 2005) was about 20 percent with typical use among nulliparous women and about 40 percent with typical use among women who have had a vaginal delivery.⁷

Risks

- Increased risk of bacterial vaginosis and vaginal candidiasis.³²
- The risk of unintended pregnancy with this method is over 10 percent with typical use.

Side Effects

None

Contraindications and Precautions

Medical Eligibility Criteria for the Cervical Cap

(restrictions associated with HIV risk are largely related to spermicides, which must be used with the cap)

Category 4 (unacceptable health risk if the contraceptive method is used)	<ul style="list-style-type: none">• High risk for HIV infection
Category 3 (theoretical or proven risks usually outweigh the advantages of using the method)	<ul style="list-style-type: none">• HIV infection or AIDS• History of toxic shock syndrome• Antiretroviral therapy• Allergy to latex• Allergy to spermicides

Source: Reference 10

Advantages

- Relatively discreet (can be inserted ahead of time)
- Easily reversible
- After up-front cost, relatively low ongoing cost for spermicide
- After initial fitting and instruction, no need for repeated visits to health care provider other than for a new size

Disadvantages

- Requires prescription
- Required with every act of intercourse
- May cause pain or discomfort with intercourse³³
- Lower efficacy with typical use than other methods
- Significantly lower efficacy in women who have had a vaginal delivery

- Increased risk of certain vaginal infections
- For some women, difficulty in learning insertion and removal techniques
- No protection against STIs

Counseling Messages

- Consistent and correct use is key to effectiveness with the cervical cap.
- Because it is much less effective in women who have had a vaginal delivery, the cervical cap is a better contraceptive choice for women who have never had a vaginal delivery.
- This method does not protect against STIs.
- Patients who use cervical caps should obtain emergency contraception in advance. (Note that patients who are less than 17 years old will need a prescription for EC.)

Sponge

Description

The vaginal sponge is a small, circular, polyurethane sponge that contains 1 gram of nonoxynol-9 spermicide. The sponge has a dimple on one side that fits over the cervix and a loop on the opposite side for removal. The Today® sponge is the only sponge that is currently available in the United States. The vaginal sponge can be purchased at a pharmacy without a prescription.



Use

The sponge is intended for one-time use only. It is moistened with tap water before use, squeezed once to evenly distribute the spermicide, and inserted into the vagina with the dimpled side fit against the cervix. There is no need for repeated applications of spermicide with additional acts of intercourse.

The sponge remains effective for up to 24 hours after insertion, regardless of the number of times intercourse occurs during that time. After the last act of intercourse, it should be left in place for at least 6 hours but for no more than 24–30 hours (i.e., if the last act of intercourse occurs 24 hours after insertion, it should be left in place for another 6 hours and then removed), because the risk of toxic shock syndrome (TSS) increases after that time. Women should not rinse the vagina or douche while wearing the sponge and for at least 6 hours after the last act of intercourse. Some women have difficulty with proper placement and/or removal of the sponge. (For more information, visit <http://www.todaysponge.com/about.html>.)

Effectiveness

- This method is somewhat effective. The sponge is less effective in gravid women. In nulliparous women, the failure rate is 12 percent with typical use.⁷
- In gravid women, the failure rate is 24 percent with typical use.⁷

Risks

- There is an increased risk of yeast infections and TSS if sponge is left in place for longer than 24–30 hours.
- The risk of unintended pregnancy is 12 percent for nulliparous women and 24 percent in parous women.

Side Effects

Some women experience vaginal dryness with sponge use.

Contraindications and Precautions

Medical Eligibility Criteria for the Sponge

(not listed in MEC, but same criteria as for spermicides because it contains spermicides)

Category 4 (unacceptable health risk if the contraceptive method is used)	<ul style="list-style-type: none">• High risk for HIV infection
Category 3 (theoretical or proven risks usually outweigh the advantages of using the method)	<ul style="list-style-type: none">• HIV infection or AIDS• Antiretroviral therapy• Allergy to spermicides

Source: Reference 10

Advantages

- Relatively discreet (can be inserted ahead of time)
- Over-the-counter availability
- Easily reversible

Disadvantages

- Required with every act of intercourse
- Lower efficacy than some other methods with typical use
- Significantly lower efficacy in gravid women
- Increased risk of yeast infection and TSS if sponge is left in too long
- No protection against STIs

Counseling Messages

- Because it is much less effective in gravid women, the vaginal sponge is a better contraceptive choice for women who have never been pregnant.
- There is an increased risk of TSS if the sponge is left in longer than the recommended time. (Providers should educate patients about the signs of TSS.)
- This method does not protect against STIs.
- Patients who use the sponge should obtain emergency contraception in advance. (Note that patients who are less than 17 years old will need a prescription for EC.)

Male Condom

Description

The male condom is a thin sheath made of latex, natural animal membrane, polyurethane, silicone, or other synthetic material that fits over the erect penis.

During ejaculation, the condom catches semen to prevent it from entering the vagina and cervix. Latex and other synthetic condoms reduce the risk of transmission of STIs, including HIV. In contrast, natural animal condoms offer no protection against STIs. Condoms can be purchased at pharmacies and other retail shops.



Use

- The rolled-up condom is placed on the tip of the erect penis. A small pouch at the condom tip accommodates ejaculated semen and is grasped while the condom is unrolled over the penis.
- Immediately after ejaculation, the condom should be grasped at the base of the penis before withdrawal from the vagina to avoid leakage.
- A new condom should be used for each act of sex.
- Spermicide provides no additional benefit to condoms and is not recommended with condoms.
- Male condoms and female should not be used simultaneously because they can adhere to each other and cause slippage or breakage of one or both devices.

Effectiveness

- This method is somewhat effective, and hinges on correct and consistent use. The effectiveness rate with typical use is about 18 percent.⁷
- Effectiveness can be enhanced when both women and men understand how to discuss condom use with their partners.
- Condoms should not be used with nonoxynol-9 spermicides, because these products can cause vaginal and rectal irritation, which may increase the risk of HIV infection.³⁴

Risks

- The risk of unintended pregnancy for this method is 18 percent.⁷

Side Effects

None

Contraindications and Precautions

Medical Eligibility Criteria for the Male Condom

Category 4 (unacceptable health risk if the contraceptive method is used)	<ul style="list-style-type: none">• Allergy to latex (does not apply to plastic condoms)• Allergy to spermicides (if the condom contains spermicide)
Category 3 (theoretical or proven risks usually outweigh the advantages of using the method)	<ul style="list-style-type: none">• HIV infection or AIDS• Antiretroviral therapy• Allergy to spermicides

Source: Reference 10

Advantages

- Over-the-counter availability
- Easy to use
- Easily reversible
- Reduction of the risk of transmission of STIs, including HIV

Disadvantages

- Lower efficacy than some other non-barrier methods with typical use
- Required with every act of intercourse
- Occasional breakage/slippage
- Use depends on cooperation of male partner
- Reduced male sensation

Counseling Messages

- Condoms provide contraception and reduce the risk of transmission of STIs, including HIV.
- Simultaneous use of the male condom and the female condom is not recommended.
- Patients who use another contraceptive method and are at risk for STI transmission should also use male (or female) condoms for STI prevention.
- Correct use of condoms is essential to their effectiveness. (Providers should educate patients about correct use and strategies for negotiating condom use with partners.)
- Condoms should be used for all sexual activities that can transmit STIs.
- Oil-based lubricants should never be used with condoms.
- Spermicides such as nonoxynol-9 should not be used with condoms; irritation from nonoxynol-9 has been shown to increase the risk of HIV transmission.³⁵
- It is important to check the expiration date on the condom packaging, because latex degrades over time and condoms are more likely to break if used after their expiration date.
- Patients who use condoms should obtain emergency contraception in advance. (Note that patients who are less than 17 years old will need a prescription for EC.)

Female Condom

Description

The female condom (FC) is a polyurethane (FC1®) or nitrile (FC2®) sheath with a closed flexible ring on one end and an open-ended ring on the other. FCs are coated inside and outside with a silicone-based lubricant. During ejaculation, the condom catches semen to prevent it from entering the vagina and cervix. FCs can be purchased at pharmacies. The FC2 condom makes less noise and is less expensive than the FC1 condom.



Use

- The closed end of the female condom is inserted into the vagina and positioned snugly between the posterior fornix and the pubic bone. The open end lies outside the vaginal opening.
- The female condom can be inserted up to 8 hours before intercourse. It is removed and discarded immediately after intercourse.
- Female condoms and male condoms should not be used simultaneously because they can adhere to each other and cause slippage or breakage of one or both devices.

Effectiveness

- This method is somewhat effective. With typical use, the failure rate for the female condom is about 21 percent.⁶

Risks

The risk of unintended pregnancy for this method is 21 percent.⁷

Side Effects

None

Contraindications and Precautions

Medical Eligibility Criteria for the Female Condom

None

Advantages

- Only woman-controlled method that reduces the risk of transmission of STIs, including HIV.³⁵
- Over-the-counter availability
- Easily reversible
- Can be inserted ahead of time to avoid interruption during sex
- Can be used during menses

Disadvantages

- Lower efficacy with typical use than some other non-barrier methods³⁵
- Less discreet than other methods
- Vaginal discomfort, penile irritation
- Required with every act of intercourse
- Occasional breakage/slippage
- May be noisy during intercourse

Counseling Messages

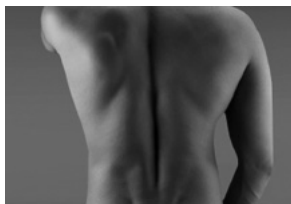
- Condoms both provide contraception and reduce the risk of transmission of STIs, including HIV.
- Patients who use another contraceptive method and are at risk for STI transmission should also use male (or female) condoms for STI prevention.
- Correct use of condoms is essential to their effectiveness. (Providers should educate patients about correct use and strategies for negotiating condom use with partners. They should also provide patients with an opportunity to practice inserting and removing the condom during the clinic visit, if possible.)

- Condoms should be used for all sexual activities that can transmit STIs.
- Oil-based lubricants should never be used with condoms.
- Spermicides such as nonoxynol-9 should not be used with condoms; irritation from nonoxynol-9 has been shown to increase the risk of HIV transmission.³⁵
- Simultaneous use of the male condom and the female condom is not recommended.
- It is important to check the expiration date on the condom packaging, because condoms are more likely to break if used after their expiration date.
- Patients who use condoms should obtain emergency contraception in advance. (Note that patients who are less than 17 years old will need a prescription for EC.)

Coitus Interruptus

Description

With this method, commonly called “withdrawal,” the penis is withdrawn from the vagina before ejaculation occurs.



Use

In withdrawal, the man withdraws his penis from the woman's vagina before he climaxes and ejaculates. The practice requires the man to be able to recognize when he is about to ejaculate and to withdraw the penis from the vagina and away from the woman's external genitalia in time. Withdrawal is often used by couples as a backup method to condoms or hormonal methods.³⁶

Effectiveness

- This method is somewhat effective. The failure rate is 22 percent with typical use.⁶
- There is no evidence to support the common belief that pre-ejaculate fluid contains sperm.³⁷

Risks

- The risk of unintended pregnancy for withdrawal is 22 percent.⁷

Side Effects

None

Contraindications

None

Advantages

- Readily available
- No cost
- No advance planning necessary

Disadvantages

- Requires cooperation and self-control of male partner
- Lower efficacy with typical use than some other methods
- Required with every act of intercourse
- No protection against STIs

Counseling Messages

- Withdrawal can be part of a larger risk-reduction strategy when used with hormonal, barrier, or other methods.
- Although not as effective as some contraceptive methods, it is substantially more effective than no contraception at all.
- Withdrawal can be discussed as a legitimate, if slightly less effective, contraceptive method just as condoms and diaphragms are.
- This method does not protect against STIs.
- Patients using withdrawal should obtain emergency contraception in advance. (Note that patients who are less than 17 years old will need a prescription for EC.)

Fertility Awareness

Description

A variety of contraceptive methods known variously as “fertility awareness,” “natural family planning,” “rhythm,” and other names may be suitable choices for couples who are highly motivated to abstain from vaginal intercourse or who use a barrier method during “fertile” days.



All fertility awareness–based (FAB) methods rely on identifying the fertile days in a woman’s menstrual cycle by counting the days in the menstrual cycle and/or noting changes in fertile signs such as cervical mucus and basal body temperature (BBT). On days identified as fertile, the couple either abstains from vaginal intercourse or uses a barrier method.

Because these methods are based on the woman’s ovulatory cycle, they are most effective for women who have reliably regular menstrual periods, between 26 and 32 days in length. Women who have two or more periods differing from this length within a single calendar year are not good candidates for these methods.

Use

- With the symptom-based Billings Ovulation Method, women must determine the “Basic Infertile Pattern” when intercourse is safe to engage in by observing the character of cervical secretions for a few months and recording their observations on a special chart. Safe “dry” days are when there are no discernible cervical secretions and occur as menstruation tapers at the beginning of the cycle. Ovulation typically occurs one day before, during, or after the last day when cervical secretions are most abundant, clear, slippery, stretchy, and wet.^{38,39}

Couples may engage in intercourse every other night on preovulatory days (just after menses ends) if cervical secretions are not present. The alternate-night schedule is designed to prevent the woman from being confused about

whether she is observing seminal fluid draining from her vagina as opposed to cervical secretions. Couples should abstain from intercourse and all intimate genital contact during days when the cervical mucus is abundant, clear, slippery, stretchy, and wet, as well as during heavy menstrual bleeding (when mucus may be present but undetectable).

- With the Creighton Model FertilityCare™ System, which is based on the Billings Method, cervical mucus plus the absence or presence of various types of bleeding are charted to monitor fertility; the method is used both to prevent and to achieve pregnancy and evaluate a woman for reproductive disorders. Proponents say the model provides scientific data that can be used to predict fertile and infertile days in women with long and irregular menstrual cycles, those who are breastfeeding, and women who are in perimenopause and still ovulating.⁴⁰
- The TwoDay Method® requires women to monitor for cervical secretions every day. On any day when the woman observes secretions—or observed them the previous day—she considers herself to be fertile and avoids intercourse. When she notes 2 consecutive days without cervical secretions, she is unlikely to become pregnant from intercourse on that day.⁴¹
- With the Standard Days Method®, the days of the menstrual cycle are tracked on a calendar. Day 1 is the first day of menstruation and days 8 through 19 are the fertile days, when unprotected intercourse is avoided. A product called Cycle Beads™ (www.cyclebeads.com) is a simple visual aid to help a woman keep track of her cycle days and fertile period.
- With the calendar days method, a woman keeps track of her menstrual cycle for 6–12 months and then subtracts 18 from the number of days in the shortest cycle and 11 from the number of days in the longest cycle. The two resulting numbers indicate the beginning and end of the fertile period.

- The ovulation method involves tracking changes in cervical mucus and/or BBT daily to determine fertile and non-fertile days. Cervical mucus changes in amount and texture around the time of ovulation, and BBT, which is measured every morning, rises by about 0.4° F around the time of ovulation.
- Alternatively, women can monitor the timing of ovulation using ovulation kits, which are available without prescription at pharmacies.

For some women, libido is high during fertile days, making abstinence an undesirable practice. Other couples find that intimacy is enhanced by practicing non-penile-vaginal forms of sexual expression during the fertile period.

For more detailed information on fertility awareness methods, see www.birth-control-comparison.info.

Effectiveness

- This method is somewhat effective and hinges on correct and consistent use.
- With typical use, the failure rate for these methods is 24 percent.⁶
- To be effective, this method requires highly motivated couples where the woman has a reliably regular menstrual period.

Risks

- The risk of unintended pregnancy for fertility awareness-based methods is 24 percent.⁷

Side Effects

None

Contraindications and Precautions

Medical Eligibility Criteria for Fertility Awareness Methods

The MEC have no contraindications or precautions to use of fertility awareness methods. The guidelines state that these methods can be used “without concern for health effects.”⁹ They also state, however, that certain conditions can make them more challenging to use, and they have developed an alphabetical criteria system for these methods (see box below).

Medical Eligibility Criteria Categories

A = Accept. There is no reason this method cannot be used.

C = Caution. The method requires extra or special counseling to ensure correct use.

D = Delay. The method should be delayed until a condition is evaluated or corrected, and an alternative, temporary method of contraception should be offered.

Source: Reference 10

Symptom-based Methods (Billings Ovulation Method, Creighton Model FertilityCare System, TwoDay Method)

Category D

(delay and offer temporary, alternative contraception)

- Breastfeeding, <6 weeks postpartum. In general, women who are primarily breastfeeding, nursing only by breast (no pumping), and do not have periods are unlikely to have sufficient ovarian function to produce detectable fertility signs and hormonal changes for the first 6 months after giving birth.
- Non-breastfeeding women, <4 weeks postpartum. Women who are not breastfeeding are unlikely to have sufficient ovarian function either to require a FAB method or to have detectable fertility signs or hormonal changes before 4 weeks after giving birth.

Continued

<p>Category D (delay and offer temporary, alternative contraception)</p>	<ul style="list-style-type: none"> • Irregular vaginal bleeding • Vaginal discharge • Use of drugs that affect cycle regularity, hormones, and/or fertility signs (e.g., lithium, tricyclic antidepressants, anti-anxiety drugs) • Acute diseases that elevate body temperature (relates to BBT methods)
<p>Category C (provide extra or special counseling)</p>	<ul style="list-style-type: none"> • Postmenarche (due to possible menstrual irregularity) • Perimenopause (due to possible menstrual irregularity) • ≥ 6 weeks postpartum and breastfeeding. In general, women who are primarily breastfeeding, nursing only by breast (no pumping), and do not have periods are unlikely to have sufficient ovarian function to produce detectable fertility signs and hormonal changes for the first 6 months after giving birth, but signs may increase beyond 6 weeks postpartum. • Postpartum and breastfeeding after menses begin (due to menstrual irregularity). • Postabortion. These women are likely to produce detectable fertility signs and/or hormonal changes, and the likelihood increases with the time postabortion. • Use of drugs that affect cycle regularity, hormones, and/or fertility signs (e.g., lithium, tricyclic antidepressants, anti-anxiety drugs)

Source: Reference 9

Calendar-based Methods (Standard Days Method, Calendar Days Method)

Category D

(delay and offer temporary, alternative contraception)

- Breastfeeding. In general, women who are primarily breastfeeding, nursing only by breast (no pumping), and do not have periods are unlikely to have sufficient ovarian function to produce detectable fertility signs and hormonal changes for the first 6 months after giving birth.
- Non-breastfeeding women. Women who are not breastfeeding are unlikely to have sufficient ovarian function either to require a FAB method or to have detectable fertility signs or hormonal changes immediately after giving birth. They can start using a calendar-based method after they have had three postpartum menses.
- Postabortion. These women are likely to produce detectable fertility signs and/or hormonal changes and can use a calendar-based method after they have had at least one postabortion menses.
- Irregular vaginal bleeding
- Use of drugs that affect cycle regularity, hormones, and/or fertility signs (e.g., lithium, tricyclic antidepressants, anti-anxiety drugs)
- Acute diseases that elevate body temperature (relates to basal body temperature methods)

Continued

Category C (provide extra or special counseling)	<ul style="list-style-type: none"> • Postmenarche (due to possible menstrual irregularity) • Perimenopause (due to possible menstrual irregularity) • Breastfeeding. In general, women who are primarily breastfeeding, nursing only by breast (no pumping), and do not have periods are unlikely to have sufficient ovarian function to produce detectable fertility signs and hormonal changes for the first 6 months after giving birth, but signs may increase beyond 6 weeks postpartum. They can use a calendar-based method after they have had at least three postpartum menses and their cycles are regular again. • Use of drugs that affect cycle regularity, hormones, and/or fertility signs (e.g., lithium, tricyclic antidepressants, anti-anxiety drugs)
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Source: Reference 10

Advantages

- Low or no cost
- Readily available once trained in method
- Also can be used to pinpoint fertile days in order to conceive

Disadvantages

- Requires cooperation of male partner
- Lower efficacy with typical use than other methods
- Lack of spontaneity on fertile days
- Unsuitable for women with cycles of fewer than 26 or more than 32 days in length
- No protection against STIs

Counseling Messages

- Correct use of fertility awareness methods is important for these methods to be used successfully.
- The calendar methods can be learned quickly and easily, whereas the ovulation methods require more practice and training for patients to accurately recognize changes in cervical mucus.
- This method does not protect against STIs.

Spermicides

Description

Spermicides are creams, foams, gels, suppositories, and films that contain a chemical that is lethal to sperm. They can be used alone or together with a barrier method. Some condoms can be purchased at the pharmacy over the counter; others are available in the family planning aisle of pharmacies and retail stores.



Use

Creams, foams, and gels are placed high up in the vagina, near the cervix, with a plastic plunger-type applicator. Spermicidal suppositories and films are inserted into the vagina and take 10–15 minutes to dissolve and become effective.

Spermicides can be applied up to 1 hour before intercourse and must be reapplied with each act of intercourse. Women should not rinse the vagina or douche for at least 6 hours after the last act of intercourse.

Effectiveness

This method is somewhat effective. Spermicides have a failure rate of 28 percent with typical use.⁷

Risks

- Possible mucosal damage to the vagina and cervix with high or prolonged exposure.⁴²
- The risk of unintended pregnancy with spermicides is 28 percent.⁷

Side Effects

Increased risk of vaginal irritation, yeast infection, bacterial vaginosis, UTI, and HIV transmission with frequent use (twice daily or more).^{34,42}

Contraindications and Precautions

Medical Eligibility Criteria for Spermicides

Category 4 (unacceptable health risk if the contraceptive method is used)	<ul style="list-style-type: none">• High risk for HIV infection
Category 3 (theoretical or proven risks usually outweigh the advantages of using the method)	<ul style="list-style-type: none">• HIV infection or AIDS• Antiretroviral therapy• Allergy to spermicides

Source: Reference 10

Advantages

- Over-the-counter availability
- Easy to use
- Easily reversible

Disadvantages

- Lower effectiveness compared with most other contraceptive methods
- Increased risk of vaginal irritation and infection with prolonged use
- No protection against STIs

Counseling Messages

- Spermicides can be used alone but are most effective when used with barrier methods.
- Spermicides do not protect against STIs.
- If used frequently, condoms can increase the risk of vulvovaginal irritation, vaginal infection, and HIV transmission.

Othercourse

Description

Sometimes also called “outercourse,” “othercourse” is a name given to a variety of sexual acts that do not involve penile-vaginal penetration for the purpose of preventing pregnancy.



Use

Sexual expression aside from intercourse can take a variety of forms, including oral sex, anal sex, hugging, and mutual masturbation. Partners also can focus on eroticizing non-genital body parts, such as hands, feet, hips, and thighs. Fantasy and role playing; erotic conversation, videos, or books; and erotic bathing or showering can be incorporated.

The avoidance of penile-vaginal intercourse as a contraceptive technique is most successful when a couple can communicate effectively about sexual matters. For many couples, this approach will not prove satisfactory as a long-term method of pregnancy prevention, but it can be relied upon under certain circumstances, for example, during the fertile period for couples that practice a fertility awareness-based method.

Effectiveness

There are no studies on the effectiveness of othercourse for pregnancy prevention. The contraceptive effectiveness of this approach depends on the couple's attitudes and self-control to refrain from penile-vaginal intercourse.

Risks

Risk of STIs with certain forms of outercourse (oral and anal sex).

Side Effects

Because this approach involves no devices or drugs, there are no associated health risks or side effects other than unintended pregnancy in the event that partners fail to use the method.

Advantages

- No need for drugs or devices
- Spontaneity
- For some couples, enhancement of intimacy and understanding of sexual needs, preferences, and desires

Disadvantages

- Risk of pregnancy even if used correctly
- Requires cooperation and self-control of male partner
- May be unsatisfying as a long-term contraceptive approach
- Lack of protection against STIs, including HIV/AIDS, unless contact with bodily fluids is avoided

Counseling Messages

- Couples that plan to use othercourse activities to prevent pregnancy should talk about their comfort levels in advance in regard to sexual practices. There should be a clear agreement—again, in advance, not during sexual activity—about what activities will take place.
- Couples that rely on this method should be willing to accept a relatively high risk of unintended pregnancy.
- In the event that this technique is attempted unsuccessfully, women should obtain EC in advance.
- At-risk women should be counseled about protecting themselves from STI transmission.
- Non-penile-vaginal sex does not protect against STIs and HIV/AIDS unless both partners avoid contact with bodily fluids that may contain infectious organisms (e.g., semen, vaginal secretions, blood, or broken skin) or use male or female condoms.

References

1. Finer LB, Henshaw SK. Disparities in rates of unintended pregnancy in the United States, 1994 and 2001. *Perspect Sex Reprod Health*. 2006;38(2):90-6.
2. Guttmacher Institute. Facts on induced abortion in the United States [fact sheet]. May 2011. Available at http://www.guttmacher.org/pubs/fb_induced_abortion.pdf. Accessed June 1, 2012.
3. Nelson AL, Cwiak, C. Combined Oral Contraceptives. In: Hatcher Trussell J, Nelson AL, Cates W Jr, et al, eds. *Contraceptive Technology*. 20th revised edition. New York, NY: Ardent Media, 2011, pp 249-251.
4. Secura GM, Allsworth JE, Madden T, et al. The Contraceptive CHOICE Project: reducing barriers to long-acting reversible contraception. *Am J Obstet Gynecol*. 2010;203(2):115.e1-7.
5. Mestad R, Secura G, Allsworth JE, et al. Acceptance of long-acting reversible contraceptive methods by adolescent participants in the Contraceptive CHOICE Project. *Contraception*. 2011;84:493-8.
6. Peipert JF, Zhao Q, Allsworth JE, et al. Continuation and satisfaction of reversible contraception. *Obstet Gynecol*. 2011;117(5):1105-13.
7. Trussell J. Contraceptive failure in the United States. *Contraception*. 2011;83(5):397-404.
8. Guttmacher Institute. Improving contraceptive use in the United States. In Brief. 2008 Series, No. 1, April 2008.
9. Berg CJ, Callaghan WM, Syverson C, Henderson Z. Pregnancy-related mortality in the United States, 1998 to 2005. *Obstet Gynecol*. 2010;116(6):1302-9.
10. Centers for Disease Control and Prevention. U.S. Medical Eligibility Criteria for Contraceptive Use, 2010. *MMWR*. 2010;59(RR-04):1-86.
11. Lamvu G, Steiner MJ, Condon S, et al. Consistency between most important reasons for using contraception and current method used: the influence of health care providers. *Contraception*. 2006;63(4):399-403.
12. Association of Reproductive Health Professionals. Breaking the Contraceptive Barrier: Techniques for Effective Contraceptive Consultations. Clinical Proceedings. October 2008. Available at www.arhp.org/Publications-and-Resources/Clinical-Proceedings/Breaking-the-Contraceptive-Barrier. Accessed May 15, 2012.
13. Griffin T, Tooher R, Nowakowski K, et al. How little is enough? The evidence for post-vasectomy testing. *J Urol*. 2005;174(1):29-36.
14. Kumar V, Kaza RM, Singh I, et al. An evaluation of the no-scalpel vasectomy technique. *BJU Int*. 1999;83:283-4.
15. Hillis SD, Marchbanks PA, Tylor LR, Perterson HB, for the US Collaborative Review of Sterilization Working Group. Poststerilization regret: findings from the United States Collaborative Review of Sterilization. *Obstet Gynecol*. 1999; 93:889-95.
16. What is Essure? Available at www.essuremd.com/Home/bTheEssureProcedure/bWhatIsEssure/tabid/55/Default.aspx. Accessed May 15, 2012.
17. Connor VF. Essure: a review six years later. *J Minim Invasive Gynecol*. 2009;16(3):282-90.
18. Vancaille TG, Anderson TL, Johns DA. A 12-month prospective evaluation of transcervical sterilization using implantable polymer matrices. *Obstet Gynecol*. 2008;112(6):1270-7.

19. Revisiting Your Women's Health Care Visit. Harris Interactive for the Association of Reproductive Health Professionals. Conducted June 30–July 14, 2004.
20. Sivin I. Utility and drawbacks of continuous use of a Copper T IUD for 20 years. *Contraception*. 2007;75:S70-5.
21. Alvarez F, Brache V, Fernandez E, et al. New insights on the mode of action of intrauterine contraceptive devices in women. *Fertil Steril*. 1988;49(5):768-73.
22. Wu S, Godfrey EM, Wojdyla D, et al. T380A intrauterine device for emergency contraception: a prospective, multicentre, cohort clinical trial. *BJOG*. 2010;117(10):1205-10.
23. Dean G, Schwarz EB. Intrauterine contraception. In: Hatcher RA, Trussell J, Nelson AL, Cates W Jr, et al, eds. *Contraceptive Technology*. 20th revised edition. New York, NY: Ardent Media, 2011, pp 147-91.
24. Grimes DA. Intrauterine device and upper-genital-tract infection. *Lancet*. 2000;356(9234):1013-9.
25. World Health Organization. Selected practice recommendations. Department of Reproductive Health and Research, Family and Community Health Cluster. Geneva: WHO, 2004.
26. Milsom I, Andersson K, Jonasson K, et al. The influence of the Gyne-T 380S IUD on menstrual blood loss and iron status. *Contraception*. 1995;52:175-9.
27. Milsom I, Rybo G, Lindstedt G. The influence of copper surface area on menstrual blood loss and iron status in women fitted with an IUD. *Contraception*. 1990;41(3):271-81.
28. Larsson G, Milsom I, Jonasson K, et al. The long-term effects of copper surface area on menstrual blood loss and iron status in women fitted with an IUD. *Contraception*. 1993;48(5):471-80.
29. Planned Parenthood Federation of America. Diaphragm. Available at <http://www.plannedparenthood.org/health-topics/birth-control/diaphragm-4244.htm>. Accessed May 15, 2012.
30. Fihn SD, Latham RH, Roberts P, et al. Association between diaphragm use and urinary tract infection. *JAMA*. 1985;254(2):240-5.
31. US Food and Drug Association. Medical devices: FemCap. Available at www.fda.gov/MedicalDevices/ProductsandMedicalProcedures/DeviceApprovalsandClearances/Recently-ApprovedDevices/ucm082597.htm. Accessed May 15, 2012.
32. d'Oro LC, Parazzini F, Naldi L, et al. Barrier methods of contraception, spermicides, and sexually transmitted diseases: a review. *Genitourin Med*. 1994;70(6):410-7.
33. Mauck CK, Weiner DH, Creinin MD, et al. FemCap with removal strap: ease of removal, safety and acceptability. *Contraception*. 2006;73(1):59-64.
34. Van Damme L, Ramjee G, Alary M, et al.; COL-1492 Study Group. Effectiveness of COL-1492, a nonoxynol-9 vaginal gel, on HIV-1 transmission in female sex workers: a randomised controlled trial. *Lancet*. 2002;360:971-7.
35. Trussell J, Sturgen K, Strickler J, et al. Comparative contraceptive efficacy of the female condom and other barrier methods. *Fam Plann Perspect*. 1994;26:66-72.
36. Jones RK, Fennel J, Higgins JA, et al. Better than nothing or savvy risk-reduction practice? The importance of withdrawal. *Contraception*. 2009;79:407-10.

37. Zuckerman Z, Weiss DB, Orvieto R. Does preejaculatory penile secretion originating from Cowper's gland contain sperm? *J Assist Reprod Genet.* 2003;20:157-9.
38. The rules of the Billings Ovulation Method™. Available at <http://www.thebillingsovulationmethod.org/how-the-billings-ovulation-method™-works/the-rules-of-the-billings-ovulation-method.html>. Accessed May 14, 2012.
39. Jennings VH, Arevalo M. Fertility awareness-based methods. In: Hatcher RA, Trussell J, Nelson AL, Cates W Jr, et al, eds. *Contraceptive Technology*. 20th revised edition. New York, NY: Ardent Media, 2011, pp 417-34.
40. Creighton Model FertilityCare™ System. What is the CrMS? Available at <http://www.fertilitycare.org/creighton-model/>. Accessed May 14, 2012.
41. Sinai I, Lundgren R, Arévalo M, Jennings V. Fertility awareness-based methods of family planning: predictors of correct use. *Int Fam Plan Perspect.* 2006;32(2):94-100.
42. Roddy RE, Cordero M, Cordero C, Fortney JA. A dosing study of nonoxynol-9 and genital irritation. *Int J STD AIDS.* 1993;4(3):165-70. Publication Information

Resources for Clinicians

ARHP's Reproductive Health Topic Area on Contraception

www.arhp.org/topics/contraception

ARHP's Method Match Tool for Patients

www.arhp.org/methodmatch

Natural Family Planning

www.natural-family-planning.info/

United States Medical Eligibility Criteria (USMEC) for Contraceptive Use

Summary Chart of U.S. Medical Eligibility Criteria for Contraceptive Use can be downloaded from www.cdc.gov/mmwr/preview/mmwrhtml/rr5904a1.htm

Update to U.S. Medical Eligibility Criteria Guidelines for Contraceptive Use

Summary Chart of U.S. Medical Eligibility Criteria for Contraceptive Use can be downloaded from www.cdc.gov/mmwr/preview/mmwrhtml/mm6026a3.htm

Contraceptive Technology

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