Non-hormonal Methods of Contraception

What they are
A non-hormonal method of birth control protects against pregnancy, without influencing a woman’s natural hormones.

You may wish to consider a non-hormonal method of birth control if you:

• want to “back-up” your hormonal method (e.g., use condoms to further protect against pregnancy and reduce risk of exposure to sexually transmitted infections)
• experience undesired side effects from, or have medical contraindications to, hormones
• have infrequent intercourse and do not feel you need ongoing contraception
• do not want to alter body’s natural rhythms (i.e., your natural menstrual cycle) for spiritual or other reasons

Below are brief descriptions of available non-hormonal methods of contraception. Additional information can be obtained from topic-specific fact sheets available at health.cornell.edu, or from a Cornell Health care provider.

Abstinence
Complete abstinence from penile-vaginal sexual contact is, of course, the only 100% effective method of preventing pregnancy. Some couples choose abstinence due to religious or cultural considerations, some due to medical conditions, and some because it is truly the most effective way to prevent pregnancy and reduce exposure to sexually-transmitted infections.

If you choose abstinence, remember that any contact with semen on or near a woman’s external genitals (e.g., labia, vulva) or inner thighs can potentially result in pregnancy. Be sure to keep any ejaculate or pre-ejaculate away from these areas.

Intrauterine Device (IUD)
The Paragard (copper) IUD can be placed into the uterus during an in-office procedure. It is highly effective, and can be left in place for long-term contraception without affecting future fertility. Some IUDs in the past were linked to pelvic infections. The IUDs used today have been proven safe and effective. Both hormonal and non-hormonal IUDs are available at Cornell Health. Please refer to our IUD fact sheet for more detailed information. [Search “IUD” at health.cornell.edu].

Condoms
Condoms are one of the most popular non-hormonal methods of contraception, for they are easily obtained and relatively easy to use. Condoms also are the only method, aside from abstinence, that can provide some protection against STI. (They are one of few contraceptives a man can use to help prevent unintended pregnancies).

Disadvantages may include (for some) an allergy to or irritation from the latex or spermicide used in the condom. If condoms are irritating, be sure to use types that are not spermicidally-lubricated. Use water-based lube instead. Other disadvantages include decreased sensation, and the need to interrupt sexual activity to put on a condom.

Proper use is the key to effectiveness of condoms, which can vary from 80% to 98% depending on the user. Cornell Health’s fact sheet on condoms and lubricants outlines instructions for proper use. Consider meeting with a sexual health nurse to further discuss selection, as well as correct usage. [Search “condom” at health.cornell.edu].

Fertility-Awareness-Based methods
There are several different Fertility-Awareness-Based (FAB) methods of contraception. Each involves tracking a woman’s menstrual cycle to predict which times of the month are “fertile” periods, during which she is at higher risk of pregnancy due to ovulation, and which times of the month are “safe.”

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conceive. For some couples, however, it is too difficult either to keep track of the necessary data or to abstain from intercourse during fertile times (as many as 10–14 days per month).

- These methods are most effective when a couple is completely abstinent during the fertile times.
- They are not very effective for women who have irregular or unpredictable menstrual periods, are currently breast-feeding or recently post-childbirth, or have recently discontinued a hormonal contraceptive method.
- Most require daily monitoring of signs of fertility, such as cycle day, basal body temperature, and cervical secretions.

As these methods can be difficult to use, the effectiveness varies widely, from 75% to 94%, depending on the user.

If you are interested in using a FAB method, visit arhp.org and search “fertility fact sheet,” or please schedule an appointment with a Cornell Health clinician to discuss which method would work best for you and how to use it, as proper understanding of the method is crucial to its success.

**Withdrawal**

Technically termed “coitus interruptus,” and more commonly “pulling out,” this method refers to removing the penis from the vagina prior to ejaculation to prevent the deposit of sperm in or near the vagina.

In theory, this method should be quite effective (best possible efficacy estimated at 96%), but in practice it is quite difficult to do. Typical use effectiveness is only 73%, due to the difficulty involved in interrupting intercourse at just the right time, and ensuring that no semen is deposited near the woman’s genitals or inner thighs.

For this reason, withdrawal is not recommended as a first choice for contraception, but it can be used if no other method is available and the couple is unable to refrain from intercourse. Withdrawal does not protect against STIs, as infectious organisms can be present on the genital skin and in the pre-ejaculate.

**Spermicides**

Vaginal spermicides are widely available, and many women choose them. However they are the least effective form of contraception available when used alone, with a perfect use effectiveness of 82% and a typical use effectiveness of 71%. They are available as gels, foams, jelly, Vaginal Contraceptive Film (VCF), creams, and suppositories.

Spermicide works by disrupting the sperm membrane to kill them. They are not highly effective, however, because it is difficult for all of the millions of sperm to be exposed to the spermicide before they enter the cervical canal.

Some men and women may also find the spermicides irritating, and higher rates of urinary tract infections have been reported among women using spermicides.

Spermicides are an important adjunct to diaphragms (see below), but their presence in conjunction with condoms has not been shown to improve contraceptive efficacy. Overall, spermicides are certainly better than no method at all, but they are the least effective solo form of contraception available.

**Diaphragm**

The diaphragm is a dome-shaped latex barrier that is inserted vaginally to cover the cervix and prevent sperm from entering the uterus. Diaphragms come in different sizes, and therefore require a clinician visit for fitting and instruction. Perfect use effectiveness for diaphragms, used in conjunction with spermicide, is 94%, but typical use is 84%.

A diaphragm is inserted prior to intercourse and must be left in place for a minimum of six hours afterward. It can be left in place for a total of 24 hours at a time. After use, a diaphragm should be removed, rinsed clean, and stored in a cool, dry place. In some women, a diaphragm can increase the risk of urinary tract infections, so it is not recommended for women with a history of multiple UTIs. Oil-based lubricants and vaginal creams (Monistat, Vagisil, and others) should not be used with diaphragms, as they can cause latex to deteriorate.

Diaphragms are not stocked by any retail pharmacy. The Cornell Health pharmacy can assist you in ordering one once you have been fitted.

**The contraceptive sponge**

The contraceptive sponge is a small, pillow-shaped polyurethane sponge containing nonoxynol-9, a common spermicide. It is moistened with water prior to use and then inserted far up into the vagina so that the concave side covers the cervix.

Once in place, the sponge protects for 24 hours, and must be left in place for at least 6 hours after the last act of intercourse. Afterwards, the sponge is removed by pulling the small attached loop and discarded. It cannot be reused.

Perfect use effectiveness for the sponge is 91%, but typical use effectiveness is only 80%. The sponge cannot be used during a menstrual period.

**Lactational Amenorrhea Method (LAM)**

When a woman has had a baby and is breast-feeding, the hormones that regulate the production of milk also inhibit ovulation, thereby preventing the possibility of another pregnancy. During this time, women do not have menstrual periods. Therefore, women who are exclusively breast-feeding (i.e., the infant has NO source of food or fluids other than the mother's breast milk), have a low risk of pregnancy—about 2% in the first six months following the baby's birth.

The risk is somewhat higher in working mothers—about 5%—as breast pumping does not as reliably produce the same hormonal signals as nursing. Once an infant starts to receive other food sources—generally at six months—this method of birth control becomes ineffective.

**Surgical sterilization**

For those who desire permanent contraception, with no future possibility of having a child, surgery can be performed to make such an event highly unlikely. While highly effective, these methods are not 100%. Also remember that they are intended to be permanent and are therefore often extraordinarily difficult, if not impossible, to reverse.

For men, vasectomy is a simple office procedure requiring either no sedative or only a mild one, along with local anesthesia (numbing medicine). The procedure does not impact ability to achieve or maintain erections or to ejaculate. As it takes time to clear any remaining sperm out of the
system, the couple is not protected for several months, until the absence of sperm has been documented on two consecutive samples by the physician. The effectiveness is about 99.9%.

For women, female sterilization effectiveness is lower than for vasectomy at 99.5%. There are a variety of options available for female sterilization. The best choice for you can be discussed with your health care provider.

If you are considering sterilization, contact Cornell Health, and we will refer you to a local surgeon for consultation.

**Emergency Contraception**

If pregnancy is undesired and you are using a non-hormonal method as your primary form of birth control, consider keeping a supply of Emergency Contraception on hand. This hormone pill can serve as a back-up method to reduce the chance of pregnancy in the event of contraceptive failure. It is best used soon after unprotected sex, but may be effective up to 5 days later. More information about EC can be found on our fact sheet, and online at health.cornell.edu.

**More Information**

The sexual health nurses at Cornell Health can talk with you about any questions you have about birth control methods, reducing your risk of exposure to STIs, and/or testing for pregnancy or infection. These consultations are free to students. You may schedule an appointment via myCornellHealth or by calling 607-255-5155.

The pharmacy at Cornell Health carries a wide range of prescription and non-prescription contraceptives, safer sex supplies, and other sexual health products at reasonable and sometimes no cost. For more information about the pharmacy, please visit: health.cornell.edu/pharmacy