Non-hormonal Methods of Contraception

What they are
A non-hormonal method of birth control protects against pregnancy without influencing 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 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 your body’s natural rhythms (i.e., menstrual cycle) for religious or other reasons

Below are brief descriptions of available non-hormonal methods of contraception. Additional information can be found by viewing topic-specific fact sheets at health.cornell.edu, or from a sexual health nurse or medical clinician at Cornell Health.

Available without a prescription:

Condoms
Condoms are one of the most popular non-hormonal methods of contraception because they are easily obtained and relatively easy to use. Condoms also are the only method, aside from abstinence, that can provide some protection against STIs.

Two types of condoms are available: external condoms worn over the penis, and internal condoms worn inside the vagina.

Disadvantages to using condoms may include (for some) an allergy to or irritation from the latex or spermicide used in some condoms. If condoms are irritating, be sure to avoid those that combine a lubricant and spermicide. Use water-based lube instead. Other disadvantages may include decreased sensation.

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.)

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 works for 24 hours, and can be used during multiple episodes of sex. It must be left in place for at least 6 hours after the last act of intercourse (no longer than 30 hours). 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.

Spermicides
Vaginal spermicides are widely available, and many choose to use 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%.

Spermicide is available as gels, foams, jelly, Vaginal Contraceptive Film (VCF), creams, and suppositories. It works by disrupting the sperm membrane to kill them. They are not highly effective because it is difficult for all of the millions of sperm to be exposed to the spermicide before they enter the cervical canal.

Some may also find the spermicides irritating, and higher rates of urinary tract infections have been reported among people assigned female at birth who use spermicides.

Spermicides are an important adjunct to diaphragms, but their presence in conjunction with condoms has not been shown to improve contraceptive efficacy.
Available with a prescription:

Copper IUD
Paragard is a non-hormonal copper intrauterine device (IUD) that can be placed into the uterus during an in-office procedure. It is more than 99% effective at preventing pregnancy, and can be left in place for up to 10 years without affecting future fertility.

Some IUDs in the past were linked to pelvic infections, but 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.)

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; however, the Caya Diaphragm is contoured and fits most, and no sizing is needed. 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, the diaphragm should be removed, washed well, and stored for future use.

In some individuals assigned female at birth, diaphragm use can increase the risk of urinary tract infections, so it is not recommended for those with a history of multiple UTI’s. Oil-based lubricants and vaginal creams (Monistat, Vagisil, and others) should not be used with diaphragms, as they can cause latex to deteriorate.

A prescription is needed to obtain a diaphragm. To get a prescription, schedule an appointment with a Cornell Health clinician. The Cornell Health pharmacy can assist you in ordering once you have a prescription.

Contraceptive gel
Phexxi is a non-hormonal contraceptive gel available by prescription. Phexxi is used in the vagina before sex; it works by lowering vaginal pH and helps prevent sperm from reaching the egg.

Phexxi is about 86% to 93% effective. It is best used in combination with other birth control methods, such as condoms, diaphragm, or withdrawal.

Other methods:

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 perfectly. 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 vulva / outer genitals.

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 does not wish 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.

Fertility awareness methods
Fertility Awareness Methods (FAMs) for contraception (also called the “rhythm method”) involve tracking an individual’s menstrual cycle to predict fertile times of the month when there is a higher risk of pregnancy due to ovulation, as well as which times of the month are more “safe” to have unprotected sex.

Some choose FAMs because they enable individuals to be in tune with their body and its rhythms. They are also helpful for couples who are trying to become pregnant, as they help maximize opportunities to conceive. For some couples, however, it can be challenging 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.

• FAMs are not very effective for those who have irregular or unpredictable menstrual periods, are currently breast-feeding/chest-feeding, are 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 mucus.

As these methods can be difficult to use, the effectiveness varies widely, from about 76% to 88%, depending on the user. If you are interested in using FAMs, visit plannedparenthood.org and search “FAMs” for detailed instructions. There are also helpful apps available to assist with tracking signs of fertility.

Lactational Amenorrhea Method (LAM)
When an individual is breast-/chest-feeding, the hormones that regulate the production of milk also inhibit ovulation. This is why breast-/chest-feeding individuals typically do not have menstrual periods.

Those who are exclusively breast-/chest-feeding (i.e., the infant has NO source of food or fluids other than 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 parents—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 those assigned male at birth, 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 those assigned female at birth, there are a variety options for tubal ligation / sterilization. The effectiveness varies, but is lower than the effectiveness of vasectomy for those assigned male at birth. The best choice for you can be discussed with your health care provider.

If you are considering sterilization, a Cornell Health medical provider or referral nurse can refer you to a local surgeon for consultation.

**Abstinence**

Complete abstinence from penile-vaginal sex is 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 sexually transmitted infections (STIs).

If you choose abstinence, remember that any contact with semen on or near the vagina (e.g., labia, vulva) can potentially result in pregnancy. Be sure to keep any ejaculate or pre-ejaculate away from these areas.

**More Information**

Cornell Health’s medical clinicians and sexual health nurses can talk with you about any questions you have about birth control methods, reducing your risk of exposure to sexually transmitted infections (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.