



Barrier Methods of Birth Control

Spermicide, Condom, Sponge, Diaphragm, and Cervical Cap

Barrier methods of birth control act as barriers to keep the man's **sperm** from reaching the woman's **egg**. Some barrier methods also protect against **sexually transmitted infections (STIs)**. A few barrier methods (spermicide, condom, and sponge) can be bought in most drugstores.

This pamphlet explains

- *types of barrier methods*
- *effectiveness in preventing pregnancy*
- *benefits, risks, and possible side effects of each method*

Effectiveness

Barrier methods prevent pregnancy by placing a barrier between the sperm and the egg. **Spermicides** are chemical barriers that inactivate sperm. The other methods—condom, diaphragm, sponge, and cervical cap—are physical barriers that block the sperm from reaching the egg.

Barrier methods are not as effective at preventing pregnancy as other birth control methods, such as the birth control implant, injection, or **intrauterine device (IUD)** (Table 1). They work best when they are used correctly every time you have sex. Even one act of sex without using a barrier method can result in pregnancy. If your barrier method breaks or becomes dislodged during sex, or if you forget or are unable to use it, you may want to consider **emergency contraception**.

Spermicides

Most spermicides in the United States contain a chemical called **nonoxynol-9** that inactivates sperm. Spermicide can be used alone or with all other barrier methods except the sponge, which already contains a spermicide. You can buy spermicide in many stores without a prescription.

How to Use It

When used alone, a spermicide should be inserted into the **vagina** close to the **cervix**. There are many different kinds of spermicides available:

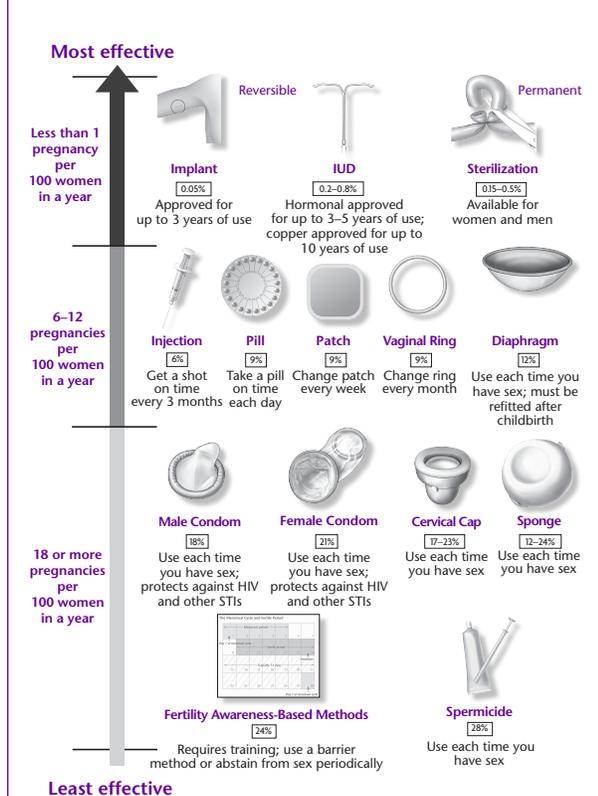
- **Foam**—Foams are inserted into the vagina with an applicator (like a tampon applicator) that comes with it.

- Cream or gel—Creams and gels are inserted into the vagina with an included applicator.
- Suppository—Suppositories are solid pellets that melt after they are inserted into the vagina.
- Film—Films are thin sheets that you insert with your fingers close to the cervix.



Spermicide

Table 1. Effectiveness of Birth Control Methods



Abbreviations: HIV, human immunodeficiency virus; IUD, intrauterine device; STIs, sexually transmitted infections.

Other methods of birth control:

Lactational amenorrhea method: This is a temporary method of birth control that can be used for the first 6 months after giving birth by women who are exclusively breastfeeding.

Emergency contraception: Emergency contraceptive pills taken or a copper IUD inserted within 5 days of unprotected sex can reduce the risk of pregnancy.

Withdrawal: The man withdraws his penis from the vagina before ejaculating; 22 out of 100 women using this method will become pregnant in the first year.

*Percentage of women who will become pregnant within the first year of typical use of the method

Adapted from the U.S. Department of Health and Human Services/Centers for Disease Control and Prevention; World Health Organization (WHO) Department of Reproductive Health and Research, Johns Hopkins Bloomberg School of Public Health/Center for Communication Programs (CCP). Knowledge for health project. Family planning: a global handbook for providers (2011 update). Baltimore, MD; Geneva, Switzerland: CCP and WHO; 2011; and Trussell J. Contraceptive failure in the United States. *Contraception* 2011;83:397-404.

When using a spermicide, you need to wait 10–15 minutes after insertion for them to become effective. Read the label carefully to see how long before sex you need to insert the spermicide into your vagina. Keep in mind that spermicides are effective for only 1 hour after they are inserted. If more than 1 hour goes by, you need to reinsert the spermicide. You must reinsert spermicide for each act of sex. Do not douche or try to remove the spermicide for at least 6 hours after insertion.

Benefits

- Spermicides are easy to use.
- They cost less to use than other birth control methods.
- They can be bought in many stores.
- They have no effect on a woman’s natural *hormones*.
- Spermicides do not affect milk supply if you are breastfeeding.

Possible Risks and Side Effects

- Spermicides can cause vaginal burning and irritation. Some people are allergic to spermicide and may have a reaction.
- Spermicides that contain nonoxynol-9 do not protect against STIs, including infection with *human immunodeficiency virus (HIV)*, and may increase the risk of getting HIV from an infected partner if used many times a day. See the box “A Warning About Spermicides.”

Condoms

Two types of condoms are available:

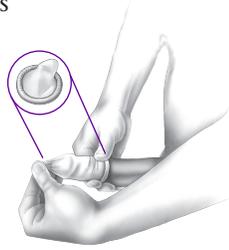
1. The male condom is a thin sheath made of latex (rubber), polyurethane (plastic), or natural (animal) membrane that is worn over the erect *penis* during sexual intercourse. Latex and polyurethane condoms provide the best protection against many STIs, including HIV.

A Warning About Spermicides

Nonoxynol-9 is found in most spermicides sold in the United States. Nonoxynol-9 does not protect against HIV or other STIs. In fact, frequent use (for example, multiple times a day) of nonoxynol-9 may irritate the vagina or rectum. This irritation can increase the risk of getting HIV from an infected partner. Nonoxynol-9 is not recommended for protection against STIs and HIV infection. It should not be used for anal sex. You should not use a spermicide if your partner has HIV or if you do not know if your partner is infected. You can use nonoxynol-9 for birth control with or without a diaphragm or condom if you have sex with only one partner who is not infected with HIV and who has no other sexual partners or HIV risk factors.

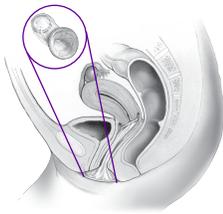
Natural membrane condoms do not protect against STIs or HIV as well as those made of latex and polyurethane.

2. The female condom is a thin plastic pouch that lines the vagina. It is held in place by a closed inner ring at the cervix and an outer ring at the opening of the vagina. It can be inserted up to 8 hours before sex and provides some protection against STIs.



Male Condom

Of all of the birth control methods available, the male condom provides the best protection against STIs, but it is not as good as other methods in preventing pregnancy. Using both a condom and another method, such as a spermicide, is the best way to protect against pregnancy and STIs. The spermicide should be put into the vagina, not on the condom. Some condoms are sold already coated with spermicide, but it is only a small amount. They may not be any better in preventing pregnancy than a condom used without spermicide. See box “A Warning About Spermicides” for important information about spermicides and STIs.



Female Condom

How to Use It

- Male condom—Place the rolled-up condom over the tip of the erect penis with the rolled side facing out. Hold the end of the condom to allow a little extra space at the tip. Then unroll the condom over the penis. Right after ejaculation, grasp the condom around the base of the penis as it is withdrawn to prevent it from slipping off. Throw the condom away. Never reuse a condom.
- Female condom—Squeeze the inner ring between your fingers and insert it into the vagina as far as possible. Push the inner ring up until it is just behind the pubic bone. About an inch of the open end should be outside your body. Right after ejaculation, twist the outer ring closed, and pull the pouch out gently. Throw the condom away. Do not reuse it. Do not use a male and female condom together because it may cause them to tear.

Both types of condoms can tear or leak. If this happens, consider using emergency contraception. Condoms should be used with a lubricant to prevent them from tearing or breaking and to reduce irritation. You can put lubricant on the condom or inside or around your vagina. Latex condoms should only be used with water-based or silicone lubricants. Oil-based lubricants, such as baby oil, hand lotions, petroleum jelly, and coconut oil, can weaken the latex and increase the risk that the condom will break. You can buy condoms that already have

a water-based lubricant. If you are at risk of HIV infection, make sure the lubricant does not contain a spermicide.

Benefits

- Condoms cost less than other birth control methods.
- They can be bought in many stores.
- They are easily carried in a pocket (avoid the back pants pocket or a wallet because heat and friction may damage the condom) or purse.
- They have no effect on a woman’s natural hormones.
- They can be used immediately after childbirth. They do not affect milk supply if you are breastfeeding.
- Latex and polyurethane condoms provide the best available protection against STIs.
- The female condom can be inserted up to 8 hours before sex.

Possible Risks and Side Effects

Some people are allergic to latex or polyurethane and may have a reaction.

Sponge

The sponge is a round device made of soft foam that contains spermicide. It is inserted into the vagina to cover the cervix and keeps sperm from entering the **uterus**. The spermicide also inactivates sperm. You can buy the sponge at many stores and you do not need a prescription.

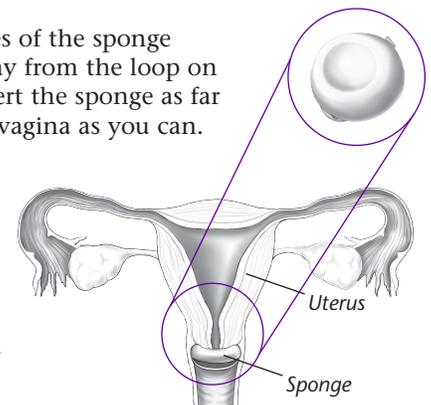
The sponge does not protect against STIs, including HIV. You should use a condom in addition to the sponge for protection against STIs.

The sponge is less effective in women who have given birth. If you want to use the sponge after having a baby, you should wait 6 weeks after giving birth until the uterus and cervix have returned to their normal size.

How to Use It

There are three basic steps for use of the sponge:

1. Wet the sponge with clean water, and squeeze it gently. The spermicide is active when the sponge is completely wet.
2. Squeeze the sides of the sponge upward and away from the loop on the bottom. Insert the sponge as far back into your vagina as you can.
3. Let go of the sponge. It will unfold and cover your cervix. Check its position with your finger. You should be able to feel the loop.



The sponge can be put in up to 24 hours before sex and should be left in place for at least 6 hours after sex. The sponge should be worn for no longer than 30 hours total. If you have sex again in this time frame, you do not have to replace the sponge. To remove the sponge, grasp the loop and slowly pull the sponge out. Throw the sponge away after use.

Benefits

- It can be bought in many stores.
- It can be carried in a purse or pocket.
- It has no effect on a woman's natural hormones.
- Each sponge contains enough spermicide for repeated acts of intercourse during a 24-hour period.
- It does not affect milk supply if you are breastfeeding.

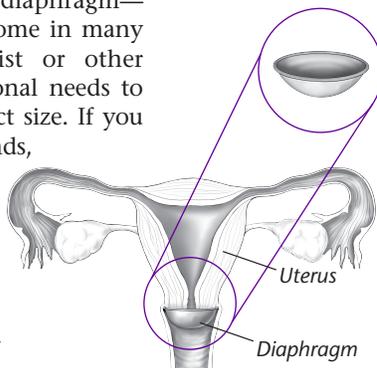
Possible Risks and Side Effects

- Birth control methods that contain spermicides should only be used if you have only one sexual partner and both of you are at low risk of HIV infection. See box "A Warning About Spermicides."
- Use of the sponge may cause vaginal burning and irritation from the spermicide. Some people are allergic to spermicide or to the polyurethane or sulfites found in the sponge and may have a reaction.
- **Toxic shock syndrome** has occurred in a few women using the sponge. Getting toxic shock syndrome when using the sponge is rare. The sponge should not be used during your menstrual period, if you gave birth less than 6 weeks ago, or if you have had toxic shock syndrome before from a tampon or a sponge. Do not wear the sponge for more than 30 hours total.

Diaphragm

The diaphragm is a small, dome-shaped device made of silicone or latex that fits inside the vagina and covers the cervix. It must be used with spermicide. There are two types of diaphragms. Both diaphragms are available by prescription only:

1. Individually sized diaphragm—These diaphragms come in many sizes. A gynecologist or other health care professional needs to fit you for the correct size. If you gain or lose 10 pounds, have a baby, or have surgery on your abdomen or pelvis (such as a surgical abortion), you need to be refitted because the size and shape of your cervix and vagina may change.



2. One-size diaphragm—This diaphragm fits most women but not all.

You should wait 6 weeks after giving birth to use either type of diaphragm until the uterus and cervix return to normal size. The diaphragm does not protect against STIs, including HIV. A male or female condom should be used with the diaphragm to provide STI protection.

How to Use It

There are three basic steps for use of a diaphragm:

1. Apply spermicidal gel around the rim and inside the dome of the diaphragm (the side that will face or be in contact with the cervix).
2. Squeeze the rim or sides of the diaphragm between your fingers. Insert the diaphragm into your vagina. Tuck the front rim of the diaphragm up as far as it will comfortably go. The front part of the rim should be up behind the pubic bone.
3. Reach inside your vagina with your longest finger to check that your cervix is completely covered by the diaphragm. The cervix feels something like the tip of your nose. Be sure to check the diaphragm's placement after sex. If the diaphragm has moved, consider taking emergency contraception.

The diaphragm must remain in place for 6 hours after sex. It should not be worn for more than 24 hours total. If you have sex again within this time frame, apply more spermicide with an applicator high up in the vagina each time without removing the diaphragm. You then need to wait another 6 hours before taking out the diaphragm.

To remove the diaphragm, pull gently on the front rim. To wash the diaphragm, use mild soap and water. Rinse the soap off well, dry the diaphragm, and put it back in its case.

If you want to use a lubricant with your diaphragm, read the instructions carefully about what types of lubricants are recommended. With latex diaphragms, use only water-based or silicone-based lubricants. Oil-based lubricants can weaken the latex. The "one-size" diaphragm should only be used with a water-based lubricant.

A diaphragm should be checked frequently for holes by holding it up to the light. Latex diaphragms should be replaced about every 2 years. Silicone diaphragms may last longer. The one-size diaphragm lasts about 5 years.

Benefits

- It has no effect on a woman's natural hormones.
- It does not affect milk supply if you are breastfeeding.
- It can be inserted hours before sex. For the exact number of hours, read your diaphragm's instructions.

Possible Risks and Side Effects

- Birth control methods that need spermicides to be effective should only be used if you have only one

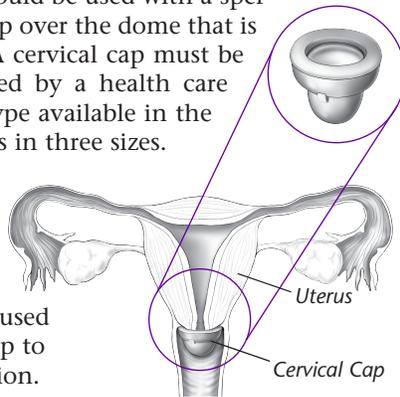
sexual partner and both of you are at low risk of HIV infection. See box “A Warning About Spermicides.”

- Use of the diaphragm and spermicide may cause vaginal burning and irritation from the spermicide. Some people are allergic to spermicide or latex and may have a reaction.
- Use of a diaphragm and spermicide may increase the risk of urinary tract infection. If the infection recurs, your diaphragm may be too large or too small. Some women may need to switch to another form of birth control.
- Toxic shock syndrome has occurred from use of the diaphragm. To reduce the risk, do not leave the diaphragm in for more than 24 hours.

Cervical Cap

The cervical cap is a small plastic dome that fits tightly over the cervix and stays in place by suction. It acts as a barrier to keep sperm from entering the uterus. The cervical cap should be used with a spermicide. It has a strap over the dome that is used for removal. A cervical cap must be fitted and prescribed by a health care professional. The type available in the United States comes in three sizes.

The cervical cap does not protect against STIs, including HIV. A male or female condom should be used with the cervical cap to provide STI protection.



How to Use It

There are three basic steps to inserting a cervical cap:

1. Apply spermicidal gel inside the groove between the rim and the dome of the cap, in the bowl of the cap, and on the outer dome of the cap.
2. Squeeze the cap between your fingers with the inside of the bowl facing up. Insert the cap into the vagina with the long brim entering first. Press the cap onto your cervix until it is completely covered.
3. Check to see if your cervix is covered before and after each act of sex. To do this, press on the dome of the cap. If the cap has moved, consider taking emergency contraception.

The cap should be left in place for 6 hours after sex but no more than 48 hours total. If you have sex more than once within this time frame, you do not need to reapply the spermicide.

To remove the cap, rotate it in any direction. Push your finger against the dome to break the suction and gently pull the removal strap.

Care for the cervical cap is similar to that for the diaphragm. It must be checked frequently for wear or

holes. It should be replaced yearly. Refitting may be needed after having a baby or after weight gain or loss. The cervical cap is less effective in women who have given birth. If you want to use the cervical cap after giving birth, you should wait 6 weeks until the uterus and cervix return to normal size.

Benefits

- It has no effect on a woman's natural hormones.
- It does not affect milk supply if you are breastfeeding.
- It can be inserted up to 40 hours before sex.

Possible Risks and Side Effects

- Birth control methods that need spermicides to be effective should only be used if you have only one sexual partner and both of you are at low risk of HIV infection. See box “A Warning About Spermicides.”
- Use of the cap may cause vaginal irritation or odor.
- To avoid an increased risk of infection and toxic shock syndrome, the cervical cap should not be used during your menstrual period.

Finally...

Barrier methods can be used safely by most couples. In most cases, they have few or no side effects. The effectiveness of barrier methods depends on using them correctly each time you have sex. If you want to use a barrier method, make sure it is one that you and your partner will use consistently and correctly.

Glossary

Cervix: The lower, narrow end of the uterus at the top of the vagina.

Egg: The female reproductive cell produced in and released from the ovaries; also called the ovum.

Emergency Contraception: Methods that are used to prevent pregnancy after a woman has had sex without birth control, after the method she used has failed, or if a woman is raped. Emergency contraception methods include progestin-only pills, ulipristal, birth control pills taken in specific amounts, or a copper intrauterine device. The pills must be taken or the IUD inserted within 5 days of unprotected sex to reduce the risk of pregnancy.

Hormones: Substances made in the body by cells or organs that control the function of cells or organs. An example is estrogen, which controls the function of female reproductive organs.

Human Immunodeficiency Virus (HIV): A virus that attacks certain cells of the body's immune system and causes acquired immunodeficiency syndrome (AIDS).

Intrauterine Device (IUD): A small device that is inserted and left inside the uterus to prevent pregnancy.

Nonoxynol-9: A chemical that inactivates sperm. It is found in most spermicides.

Penis: An external male sex organ.

Sexually Transmitted Infections (STIs): Infections that are spread by sexual contact, including chlamydia, gonorrhea, human papillomavirus (HPV), herpes, syphilis, and human immunodeficiency virus (HIV, the cause of acquired immunodeficiency syndrome [AIDS]).

Sperm: A cell produced in the male testes that can fertilize a female egg.

Spermicides: Chemicals (creams, gels, foams) that inactivate sperm.

Toxic Shock Syndrome: A severe illness caused by a bacterial infection.

Uterus: A muscular organ located in the female pelvis that contains and nourishes the developing fetus during pregnancy.

Vagina: A tube-like structure surrounded by muscles leading from the uterus to the outside of the body.

This Patient Education Pamphlet was developed by the American College of Obstetricians and Gynecologists. Designed as an aid to patients, it sets forth current information and opinions on subjects related to women's health. The average readability level of the series, based on the Fry formula, is grade 6–8. The Suitability Assessment of Materials (SAM) instrument rates the pamphlets as "superior." To ensure the information is current and accurate, the pamphlets are reviewed every 18 months. The information in this pamphlet does not dictate an exclusive course of treatment or procedure to be followed and should not be construed as excluding other acceptable methods of practice. Variations, taking into account the needs of the individual patient, resources, and limitations unique to the institution or type of practice, may be appropriate.

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