



## Barrier Methods of Birth Control: Spermicide, Condom, Sponge, Diaphragm, and Cervical Cap

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### What are barrier methods of birth control?

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. Others (diaphragm and cervical cap) must be prescribed by a health care professional.

### How effective are barrier methods of birth control in preventing pregnancy?

Barrier methods are not as effective at preventing pregnancy as other birth control methods, such as the birth control implant, injection, or **intrauterine device**. Out of 100 women per year, 18–28 women will become pregnant when using barrier methods. 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**.

### What is spermicide and how do I use it?

Spermicide is a chemical that inactivates sperm. Most spermicides in the United States contain a chemical called **nonoxynol-9**. Spermicide can be used alone or with all other barrier methods except the sponge, which already contains a spermicide. It comes in different forms, including foams, creams, gels, suppositories, and films.

When used alone, a spermicide should be inserted into the **vagina** close to the **cervix**. You need to wait 10–15 minutes after insertion for the spermicide 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. 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.

## What are the benefits, risks, and side effects of using spermicide?

Benefits:

- Spermicides are easy to use and can be bought in many stores.
- They cost less to use than other birth control methods.
- 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. Spermicides should only be used if you have only one sexual partner and both of you are at low risk of HIV infection.

## What are condoms and how do I use them?

A condom acts as a physical barrier that prevents sperm from entering the **uterus** and reaching an egg. Two types are available:

1. A 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.
2. A 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 provides some protection against STIs.

Using both a condom and another method, such as a spermicide, is the best way to protect against pregnancy and STIs. Condoms should be used with a lubricant to prevent them from tearing or breaking and to reduce irritation. Use only water-based or silicone lubricants with latex condoms, and do not use a male and female condom together. Throw condoms away after use.

## What are the benefits, risks, and side effects of using condoms?

Benefits:

- Condoms cost less than other birth control methods and can be bought in many stores.
- 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.

## What is the sponge and how do I use it?

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. The sponge does not protect against STIs, including HIV.

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. Throw the sponge away after use.

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 return to their normal size.

## What are the benefits, risks, and side effects of using the sponge?

Benefits:

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

Possible risks and side effects:

- Because the spermicide in the sponge can increase the risk of getting HIV from an infected partner, you should use the sponge only if you have one sexual partner and both of you are at low risk of HIV infection.

- Its use 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.
- Getting **toxic shock syndrome** when using the sponge is rare, but it has occurred in a few women. Do not use it 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.

### What is the diaphragm and how do I use it?

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: 1) the individually sized diaphragm, which must be fitted by a health care professional, and 2) the one-size diaphragm, which fits most but not all women. Neither protect against STIs, including HIV. You should wait 6 weeks after giving birth to use a diaphragm, until the uterus and cervix return to normal size.

The diaphragm must remain in place for 6 hours after sex, but for no more than 24 hours total. If you have sex again within this time frame, apply more spermicide without removing the diaphragm. You then need to wait another 6 hours before taking out the diaphragm.

### What are the benefits, risks, and side effects of using the diaphragm?

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:

- Because the spermicide used with the diaphragm can increase the risk of getting HIV from an infected partner, you should use the diaphragm only if you have one sexual partner and both of you are at low risk of HIV infection.
- 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.
- 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.

### What is the cervical cap and how do I use it?

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. It should be used with a spermicide. A health care professional must fit and prescribe the cap. The type available in the United States comes in three sizes. The cap does not protect against STIs, including HIV.

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.

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. You should wait 6 weeks after giving birth to use the cap, until the uterus and cervix return to normal size.

### What are the benefits, risks, and side effects of using the cervical cap?

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:

- Because the spermicide used with the cervical cap can increase the risk of getting HIV from an infected partner, you should use the cervical cap only if you have one sexual partner and both of you are at low risk of HIV infection.
- 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.

### 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:** 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, 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.

**Spermicide:** A chemical (cream, gel, foam) that inactivates 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.

**If you have further questions, contact your obstetrician–gynecologist.**

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