

## Barrier Methods of Contraception

Barrier methods are some of the oldest and safest forms of contraception (birth control). These methods work by acting as barriers to keep the man's sperm from reaching the woman's egg. Some methods also may protect against certain sexually transmitted diseases (STDs). This pamphlet explains:

- The types of barrier methods
- How they work
- How well they prevent pregnancy

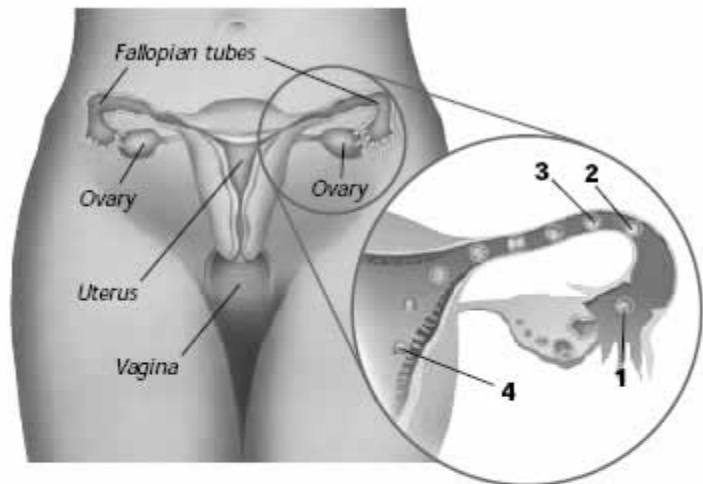
Barrier methods can be used safely by most couples. In most cases, they have no side effects.

### The Reproductive Process

To understand how barrier methods work, you should know what happens during reproduction. A woman has two ovaries, one on each side of the uterus. Each month, one of the ovaries releases an egg into a fallopian tube. This is called ovulation. In most women it occurs about 12–14 days before the start of the menstrual period.

A woman can get pregnant if she has sex around the time of ovulation. During sex, the man ejaculates sperm into the vagina. The sperm travel up through the cervix and the uterus and into the fallopian tubes.

If a sperm meets an egg in the fallopian tube, fertilization—union of egg and sperm—can occur. The fertilized egg then moves down the fallopian tube and attaches to the uterus where it grows into a fetus.



*Each month during ovulation an egg is released (1) and moves into one of the fallopian tubes (2). If a woman has sex around this time, an egg may meet a sperm in the fallopian tube, and the two will join (3). This is called fertilization. The fertilized egg then moves through the fallopian tube into the uterus and becomes attached there to grow during pregnancy (4).*

### Types of Barrier Methods

Barrier methods are safe and effective ways to prevent pregnancy. There are several types of barrier methods. The types of barrier methods used today in the United States include:

- Spermicides
- Condoms (male and female)
- Diaphragm
- Cervical cap

Spermicides are chemical barriers. The other methods are physical barriers. Combining chemical and physical barriers—such as spermicides and a diaphragm—provides more protection.

Barrier methods are not as effective at preventing pregnancy as some other birth control methods, such as birth control pills or the intrauterine device (IUD). However, when two barrier methods are used together (such as a diaphragm and a condom), they become highly effective.

Most of the time, barrier methods have no side effects on other systems in your body. However, if you or your partner are allergic to latex, do not use a barrier method that contains latex (rubber). It may cause a reaction in your body.

Barrier methods work best when used the correct way every time you have sex (Table 1). Even one act of sex without birth control can result in pregnancy. If your barrier method breaks or becomes dislodged during sex, you may want to consider emergency contraception.

### *Spermicides*

Spermicides are chemical barrier methods that include tablets, foam, cream, jelly, and film (thin sheets that contain spermicide). Spermicides contain a chemical that kills sperm or makes them not active so they cannot pass through the woman's cervix. Before each act of sex, spermicides are placed in the vagina, close to the cervix. Films and tablets must be placed in the vagina 10–30 minutes before sex. They require time to melt and become active.

**Table 1. Failure Rates of Barrier Methods**

<i>Method</i>	<i>Failure Rate (%)*</i>
Spermicide	29
Condom	
Male	15
Female	21
Diaphragm <sup>†</sup>	16
Cervical Cap <sup>†</sup>	
Has had child	30
Has not had a child	15

\*When using the method on a regular basis

<sup>†</sup>Used with spermicide

Spermicides are easy to use. They are sold at a low cost and can be bought over-the-counter. Spermicide must be reapplied for each act of sex. Be sure to follow the instructions supplied with the product. Use the applicator that comes with it.

Spermicides are most effective when used with another barrier method, such as a condom. Spermicides are not linked to any increased risk of birth defects if you become pregnant.

The risk of a urinary tract problems or

vaginitis may be increased with the use of spermicides. Frequent use of some spermicides may irritate vaginal tissue and increase the risk of STDs.

### **Condoms**

**Male.** A male condom is a thin sheath made of latex (rubber), polyurethane (plastic), or animal membrane. It is worn by a man over an erect penis. The male condom acts as a physical barrier to keep the sperm from entering the cervix and getting to the egg. When sperm is released, it stays inside the condom and does not pass into the woman's vagina.

Condoms are available over-the-counter in many supermarkets, drug stores, and other stores, so they are easy to find and buy. There are many types of condoms available. Condoms come in different shapes, sizes, and colors. Some may have shaped ends that provide a place to hold the semen. They are sold either dry or lubricated. Only water-based lubricants should be used with male condoms. Oil can damage them. Condoms should be stored away from heat and light.

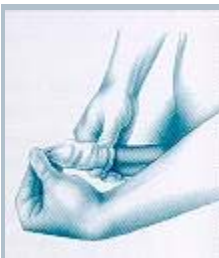
Of all birth control methods, latex condoms provide the best protection against STDs. Condoms made of animal membrane do not protect against STDs as well as those made of latex.

A condom can be used only once and only one should be used at a time. Although simple to use, to be effective they must be used correctly throughout each act of sex (see box). They can be used with other methods of birth control to increase effectiveness.

Some people may be allergic to latex. These people might consider using condoms made from animal membrane or plastic.

**Female.** 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 is best suited for women whose partners will not use a male condom.

The female condom provides a physical barrier that prevents sperm from entering the cervix. Like the male condom, the female condom is more effective when used with a spermicide. Female condoms can be bought over-the-counter and do not need to be fitted.



#### **How to Use a Condom**

Proper condom use helps protect you and your partner against STDs as well as pregnancy. Only water-based lubricants can be used safely with a condom. It is unsafe to use oils or lotions, such as petroleum jelly, olive oil, or cold cream.

To use the male condom, place the rolled-up condom over the tip of the erect penis. 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. Throw the condom away. It should never be reused.

To use the 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, squeeze and twist the outer ring and pull the pouch out gently. As with the male condom, throw it away—it should never be reused.

Some couples prefer the female condom to the male condom. The female condom conducts heat better than the male condom. It does not feel tight around the penis. Female condoms also may provide some protection against STDs.

The female condom is inserted much like a diaphragm. It comes with a lubricant. You can use both oil-based and water-based lubricants with it. The female condom can be inserted up to 8 hours before sex.

Female condoms should be used only once. They can be difficult to insert and require careful use to prevent pregnancy. The condom may produce a noise if not enough lubrication is used.

A female condom should not be used at the same time a male condom is being used. It puts both condoms at an increased risk of breakage.

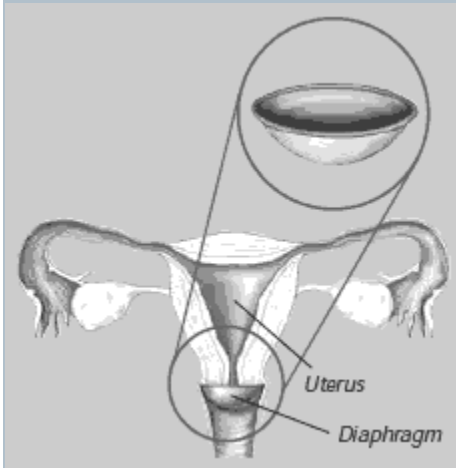
### ***Diaphragm***

The diaphragm is a small, round rubber dome with a firm, flexible rim that fits inside the woman's vagina and covers her cervix. It is used with a spermicide.

A diaphragm requires a prescription. Diaphragms come in a range of sizes (diameter of the rim). You will need to see a doctor or nurse to be fitted. Women should be fitted with the largest comfortable size. To use a diaphragm, a woman's vagina must be able to hold it in place.

After you are fitted, you will be shown how to insert and remove the diaphragm. You also will learn how to check if it is placed properly. You will need to be refitted if:

- You gain or lose 10 pounds or more
- You have pelvic surgery
- You give birth or have an abortion
- You have repeated urinary tract infections
- You or your partner feel pain or pressure during sex



### How to Insert a Diaphragm

1. Apply spermicidal cream or jelly around the rim and inside the dome of the diaphragm. The spermicide must be on the side of the diaphragm facing or in contact with the cervix. It also can be put on both sides.
2. Squeeze the rim of the diaphragm between your fingers and insert it into your vagina. When the diaphragm is pushed up as far as it will go, the front part of the rim should be up behind a bone you can feel in front of your pelvis (the pubic bone). Tuck the front rim of the diaphragm up as far as it will comfortably go.
3. Check to see if your cervix is covered. To do this, reach inside and touch your cervix. The cervix feels something like the tip of your nose. If you have trouble finding your cervix, talk with your doctor or nurse about how to place the diaphragm. After the diaphragm is in place, the cervix should be completely covered by the rubber dome.

A diaphragm is effective only if you use it correctly each time you have sex. A diaphragm should be replaced with a new one about every 2 years.

Using the diaphragm reduces the risk of some STDs. When used with the male condom, protection from pregnancy and STDs is increased.

The diaphragm may be put in place up to 6 hours before you have sex. A diaphragm does not work if spermicide is not used. If you have inserted the diaphragm more than 2 hours before you have sex, you must insert a fresh supply of spermicide into the vagina just before you have sex. More spermicide should be used before each act of sex, no matter how closely timed they are. This can be inserted while the diaphragm is still in place.

The diaphragm may slip out of place, so be sure to check its placement before and after sex. If the diaphragm is dislodged during sex, spermicide should be reapplied.

After sex, the diaphragm must be left in place for about 6 hours. However, it should not be left in place for more than 24 hours. To remove the diaphragm, pull gently on the front rim. To wash the diaphragm, use mild soap and water. Rinse the soap off well (soap can damage the rubber), dry it, and put it back in its case.

A diaphragm may fade or change colors over time. It still can be used unless you notice holes in the rubber. To check for holes, hold the diaphragm up to a light and stretch the

rubber gently between your fingers. Filling the diaphragm with water also is a good way to check for holes.

Use only water-based lubricants when you use a diaphragm. Do not use any oil-based lubricants such as petroleum jelly or body lotion. The oil can damage the rubber. Also, some medications used in the vagina are oil-based and can affect a diaphragm. Do not use talcum powder to dry your diaphragm. Talc may increase the risk of ovarian cancer.

A diaphragm may increase the risk of urinary tract infections. If you get a urinary tract infection, your doctor may treat it with antibiotics. If you keep having infections, you may need to be refitted, or you may need to change to another type of birth control.

Use of a diaphragm can cause a reaction in those who have an allergy to spermicides or latex. It cannot be used just after giving birth.

### ***Cervical Cap***

The cervical cap is a small, thin rubber or plastic dome shaped like a thimble. It is smaller than a diaphragm. It fits tightly over the cervix and stays in place by suction.

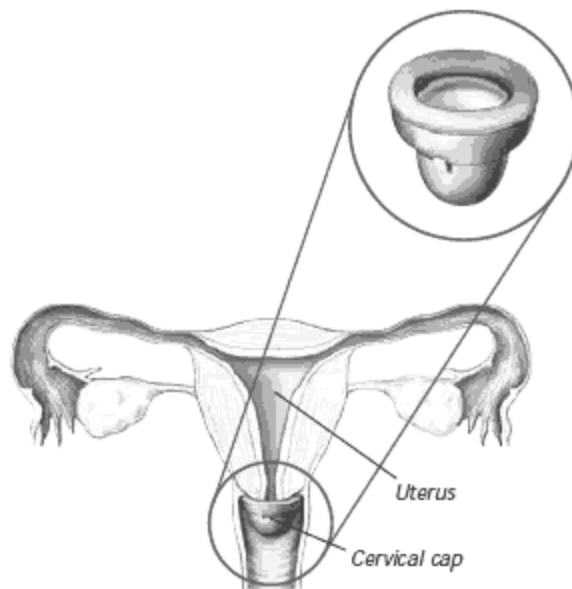
Cervical caps come in four sizes. A doctor must prescribe and fit you for a cervical cap. You will then be taught how to insert and remove it.

Like the diaphragm, the cervical cap works by blocking the sperm from entering the cervix. It also must be used with a spermicide.

Unlike the diaphragm, it can remain in place for up to 48 hours. Less spermicide is needed with the cervical cap and it does not need to be reapplied before each act of sex.

The cervical cap does not require strong vaginal muscles to use. It is less likely than the diaphragm to be felt by your partner during sex. The cervical cap has many similarities to the diaphragm:

- It reduces the risk of some STDs.
- Oil-based lubricants, such as petroleum jelly, should not be used with it.
- It may be used in combination with the male condom for better protection from pregnancy and STDs.
- It cannot be worn just after giving birth.



- It must be checked for wear or holes.
- It must be refitted after giving birth, having an abortion, or after weight gain or loss.

Care for the cervical cap is similar to that of the diaphragm. A cervical cap needs to be replaced with a new one once a year.

Inserting a cervical cap is a lot like inserting a diaphragm. Spermicide is placed inside the cap, which then is squeezed between your fingers and inserted into the vagina. The cap is then pressed onto the cervix until the cervix is completely covered. Before each act of sex, the cervix should be checked to make sure it is covered. This is done by pressing on the dome of the cap with your finger. After sex, the cap should be left in place for 6 hours, but it should not be in longer than 48 hours total.

The cervical cap sometimes causes irritation or odor in the vagina. This most often occurs if it is left in too long. It also may increase the risk of urinary tract infection.

### **Finally...**

Barrier methods can be used safely by most couples. In most cases, they have no side effects. Barrier methods are effective when used correctly every time you have sex. If you plan to rely on a barrier method for birth control, select a method you and your partner will use every time you have sex. If you have questions about or want to use a barrier method, talk with your doctor. If the method fails, you may want to consider emergency contraception.

### **Glossary**

***Cervix:*** The lower, narrow end of the uterus, which protrudes into the vagina.

***Emergency Contraception:*** Birth control pills that are used to prevent pregnancy after a woman has had sex without birth control or after the method she used has failed. It must be taken within 120 hours to reduce the risk of pregnancy.

***Fetus:*** A baby growing in the woman's uterus.

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

***Sexually Transmitted Disease (STD):*** A disease that is spread by sexual contact, including chlamydial infection, gonorrhea, human papillomavirus infection, herpes, syphilis, and infection with human immunodeficiency virus (HIV, the cause of acquired immunodeficiency syndrome [AIDS]).

***Vaginitis:*** Inflammation of the vagina.