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18/MHS05/005

PHYSIOLOGY

Phs 204

Question: Write on contraception the types of contraception

## **Definition**

Contraception (birth control) prevents pregnancy by interfering with the normal process of ovulation, fertilization, and implantation. There are different kinds of birth control that act at different points in the process.

## **Purpose**

Every month a woman's body begins the process that can potentially lead to pregnancy. An egg (ovum) matures, the mucus that is secreted by the cervix (a cylindrical-shaped organ at the lower end of the uterus) changes to be more inviting to sperm, and the lining of the uterus grows in preparation for receiving a fertilized egg. Any woman who wants to prevent pregnancy must use a reliable form of birth control. Birth control (contraception) is designed to interfere with the normal process and prevent the pregnancy that could result. There are different kinds of birth control that act at different points in the process, from ovulation through fertilization to implantation. Each method has its own side effects and risks. Some methods are more reliable than others.

 Although there are many different types of birth control, they can be divided into a few groups based on how they work. These groups include:

* Hormonal methods: These use medications (hormones) to prevent ovulation. Hormonal methods include birth control pills ( [oral contraceptives](http://www.healthofchildren.com/N-O/Oral-Contraceptives.html)), Depo Provera injections, and Norplant.
* Barrier methods: These methods work by preventing the sperm from getting to and fertilizing the egg. Barrier methods include male [condom](http://www.healthofchildren.com/C/Condom.html)and female condom, diaphragm, and cervical cap. The condom is the only form of birth control that also protects against [sexually transmitted diseases](http://www.healthofchildren.com/S/Sexually-Transmitted-Diseases.html), including human [immunodeficiency](http://www.healthofchildren.com/I-K/Immunodeficiency.html)virus (HIV) that causes acquired immune deficiency syndrome (AIDS).
* Spermicides: These medications kill sperm on contact. Most spermicides contain nonoxynyl-9. Spermicides come in many different forms such as jelly, foam, tablets, and even a transparent film. All are placed in the vagina. Spermicides work best when they are used at the same time as a barrier method.
* Intrauterine devices (IUDs): These devices are inserted into the uterus, where they stay from one to ten years. An IUD prevents the fertilized egg from implanting in the lining of the uterus and may have other effects as well.
* Tubal ligation: This medical procedure is a permanent form of contraception for women. Each fallopian tube is either tied or burned closed. The sperm cannot reach the egg, and the egg cannot travel to the uterus.
* Vasectomy: This medical procedure is a the male form of sterilization and should be considered permanent. In vasectomy, the vas defrens, the tiny tubes that carry the sperm into the semen, are cut and tied off.

Unfortunately, there is no perfect form of birth control. Only abstinence (not having sexual intercourse) protects against unwanted pregnancy with 100 percent reliability. The failure rates, or the rates at which pregnancy occurs, for most forms of birth control are quite low. However, some forms of birth control are more difficult or inconvenient to use than others. In actual practice, the birth control methods that are more difficult or inconvenient have much higher failure rates, because they are not used faithfully.

## **Description**

All forms of birth control have one feature in common. They are only effective if used faithfully. Birth control pills work only if taken every day; the diaphragm is effective only if used during every episode of sexual intercourse. The same is true for condoms and the cervical cap. Some methods are automatically working every day, no matter what. These methods include Depo Provera, Norplant, the IUD, and tubal sterilization.

There are many different ways to use birth control. They can be divided into several groups:

* By mouth (oral): Birth control pills must be taken by mouth every day.
* Injected: Depo Provera is a hormonal medication that is given by injection every three months.
* Implanted: Norplant is a long-acting hormonal form of birth control that is implanted under the skin of the upper arm.
* Vaginal: Spermicides and barrier methods work in the vagina.
* Intra-uterine: The IUD is inserted into the uterus.
* Surgical: Tubal sterilization is a form of surgery. A doctor must perform the procedure in a hospital or surgical clinic. Many women need general anesthesia.

The methods of birth control differ from each other regarding when they are used. Some methods of birth control must be used specifically at the time of sexual intercourse (condoms, diaphragm, cervical cap, spermicides). All other methods of birth control must be working all the time to provide protection (hormonal methods, IUDs, tubal sterilization).

### **Condoms and spermicides**

Condoms are about 85 percent effective in preventing pregnancies. That means that out of 100 females whose partners use condoms, 15 will still become pregnant during the first year of use, according to the nonprofit advocacy group Planned Parenthood. Unwanted pregnancies usually occur because the condom is not attached or used properly or breaks during intercourse. More protection against pregnancy is possible if a spermicide is used along with a condom. Spermicide is a pharmaceutical substance used to kill sperm, especially in conjunction with a birth-control device such as a condom or diaphragm. Spermicides come in foam, cream, gel, suppository, or as a thin film. The most common spermicide is called nonoxynol-9, and many condoms come with it already applied as a lubricant. However, spermicides do not kill HIV or other sexually transmitted viruses and do not prevent the spread of HIV and other STDs. Also, nonoxynol-9 can irritate vaginal tissue and thus increase the risk of getting an STD. In anal sex, especially between two males, spermicides also can irritate the rectum, increasing the risk of getting HIV. Spermicides are specifically discouraged for use by gay or bisexual males for anal sex.

Latex condoms are also recommended over condoms made from other materials, especially lambskin, because they are thicker and stronger and have less risk of breakage during sex. Non-latex condoms do not prevent the spread of STDs, including HIV, and should not be used by gay or bisexual men or men who have HIV or other sexually transmitted diseases. Condoms are available over-the-counter, meaning they do not require a prescription, and there are no age restrictions on purchasing condoms. They are available at a variety of locations, including drug stores, convenience stores, supermarkets, and [family](http://www.healthofchildren.com/E-F/Family.html)planning clinics. They are also available for purchase on the Internet.

**FEMALE CONDOM** The female condom is a seven-inch polyurethane pouch that fits into the vagina. It collects semen before, during, and after ejaculation, keeping semen from entering the uterus through the cervix and thus protecting against pregnancy. In one year of use, it is 79 percent effective in preventing pregnancies. It also reduces the risk of many STDs, including HIV. There is a flexible ring at the closed end of the thin, soft pouch of the female condom. A slightly larger ring is at the open end. The ring at the closed end holds the condom in place in the vagina. The ring at the open end rests outside the vagina. When the condom is in place during sexual intercourse, there is no contact of the vagina and cervix with the skin of the penis or with secretions from the penis. It can be inserted up to eight hours before sex.

### **Precautions**

There are risks associated with some forms of birth control. Some of the risks of each method are:

* Birth control pills: The hormone (estrogen) in birth control pills can increase the risk of heart attack in women over forty who smoke.
* IUD: This device can increase the risk of serious pelvic infection. The IUD can also injure the uterus by poking into or through the uterine wall. Surgery might be needed to fix this.
* Tubal sterilization: "Tying the tubes" is a surgical procedure and has all the risks of any other surgery, including the risks of anesthesia, infection, and bleeding.
* Condom: The most common problems associated with condoms are breakage during use and improper technique in using condoms. These can lead to pregnancy and sexually transmitted diseases, especially HIV.