
STUDY OF FAMILY PLANNING DEVICES CONTRACEPTIVES DEVICES

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- Family planning means to plan and limit the size of the family in accordance with social, economic and health conditions so as to ensure that the family is happy both physically and mentally.
 - The term "family planning" is replaced with a broader term "family welfare" which is basically related to quality of life. It includes nutrition, health, education, employment, welfare of the women, shelter, safe drinking water etc.

CONTRACEPTIVE METHODS

A. TEMPORARY METHODS (Spacing Methods)

B. PERMANENT METHODS

NATURAL METHODS

1. Sexual Abstinence
2. Coitus Interruptus
(Withdrawal Method)
3. Rhythm Method
(Safe Period)
1. Basal Body
Temperature Method
2. Vaginal Washing
Method

BARRIER METHODS

1. Male Condoms
2. Female Condoms
3. Contraceptive Sponges
4. Spermicides
5. Diaphragms
6. Cervical Caps
7. Intrauterine Devices
(IUDs)
 - Lippe's Loop
 - Copper-T

HORMONAL METHODS

1. Injectable Birth Control
2. Injectable Birth Control
3. Oral Contraceptives
(OCs, "The Pill")
4. Vaginal Ring

1. Sterilization
Implant
2. Tubal Ligation
(Tubectomy)
3. Vasectomy

METHODS OF FAMILY PLANNING

A. TEMPORARY METHOD:

These methods are used for keeping a space in the birth of the children that is why these methods are also called as Spacing methods. These include:

1. NATURAL METHODS:

Natural methods of contraception are used when the couple is not willing to use any other artificial method either due to medical reason or due to personal beliefs. It includes:

a) Sexual abstinence: This means not having sex (vaginal, anal, or oral) at any time.

It is the only sure way to prevent pregnancy and protect against sexually transmitted infections (STIs), including HIV.

b) Coitus interruptus: It is also called withdrawal method.

- In this method the penis is withdrawn from the vagina just before ejaculation so that the semen is discharged outside the vagina.

b) Rhythm method (Safe period):

- It is based on the fact that a woman normally produces one egg cell every month which is shed during the fertile period which is roughly 10-20 day after the onset of menstrual period.
- If sexual intercourse is avoided during this unsafe period or the days when there is a possibility of meeting the female egg with male sperm, then the pregnancy can be avoided.
- A large number of people throughout the world use rhythm method to avoid pregnancy to take place but it is not considered as a very reliable method.

d) Basal body temperature method:

- During a women menstrual cycle her basal body temperature rises at least 0.4°F because of release of hormone after ovulation this rise in temperature form the basis of basal body temperature method.
- Once the temperature rise is noticed the couple may have intercourse for pregnancy to occur or avoid intercourse for preventing the pregnancy to occur.

e) Vaginal washing method:

- In this method vagina is immediately washed after intercourse to flush out all sperms.

2. BARRIER METHODS:

These are the devices that attempt to prevent pregnancy by physically preventing sperm from entering the uterus. These include:

a) Male condoms.

- This condom is a thin sheath that covers the penis to collect sperm and prevent it from entering the woman's body.
- Male condoms are generally made of latex or polyurethane, but a natural alternative is lambskin (made from the intestinal membrane of lambs).
- Latex or polyurethane condoms reduce the risk of spreading sexually transmitted diseases.
- Male condoms are disposed of after a single use

Male and female condom contraceptives



b) Female condoms.

- These are thin, flexible plastic pouches. A portion of the condom is inserted into a woman's vagina before intercourse to prevent sperm from entering the uterus. The female condom also reduces the risk of STDs.
- Female condoms are disposed of after a single use.

c) Contraceptive sponges

- These are soft, disposable, spermicide-filled foam sponges. One is inserted into the vagina before intercourse.
- The sponge helps block sperm from entering the uterus, and the spermicide also kills the sperm cells.
- The sponge should be left in place for at least 6 hours after intercourse and then removed within 30 hours after intercourse.



d) Diaphragms

- Each diaphragm is a shallow, flexible cup made of latex or soft rubber that is inserted into the vagina before intercourse, blocks sperm from entering the uterus.
- Spermicidal cream or jelly should be used with a diaphragm.
- The diaphragm should remain in place for 6 to 8 hours after intercourse to prevent pregnancy, but it should be removed within 24 hours.

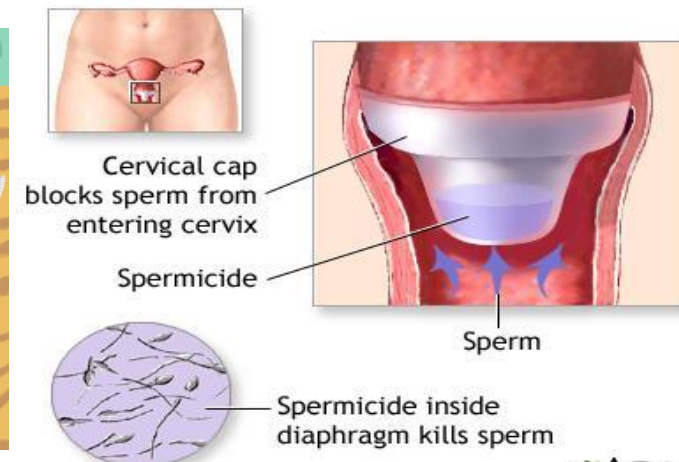


e) Spermicides

- A spermicide can kill sperm cells. A spermicide can be used alone or in combination with a diaphragm or cervical cap.
- The most common spermicidal agent is a chemical called nonoxynol-9 (N-9).
- It is available in several concentrations and forms, including foam, jelly, cream, suppository, and film.
- A spermicide should be inserted into the vagina close to the uterus no more than 30 minutes prior to intercourse and left in place 6 to 8 hours after intercourse to prevent pregnancy.
- Spermicides do not prevent the transmission of STDs and may cause allergic reactions or vaginitis.

f) Cervical caps

- These are similar to diaphragms but are smaller and more rigid.
- The cervical cap is a thin silicone cup that is inserted into the vagina before intercourse to block sperm from entering the uterus.
- As with a diaphragm, the cervical cap should be used with spermicidal cream or jelly.
- The cap must remain in place for 6 to 8 hours after intercourse to prevent pregnancy, but it should be removed within 48 hours.



g) Intrauterine devices (IUD):

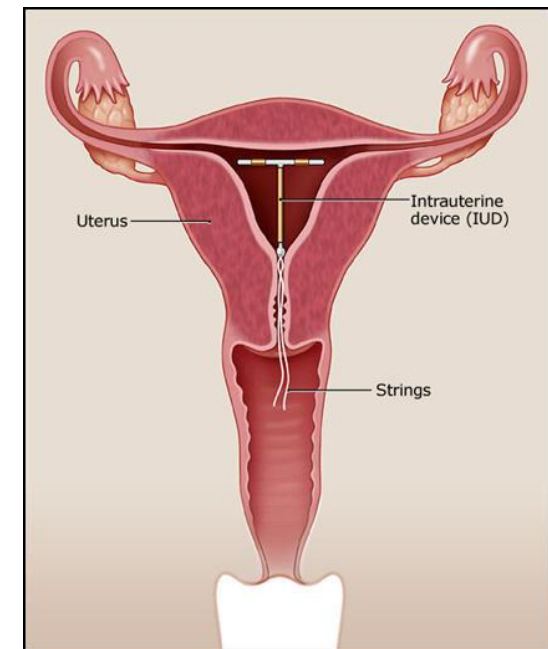
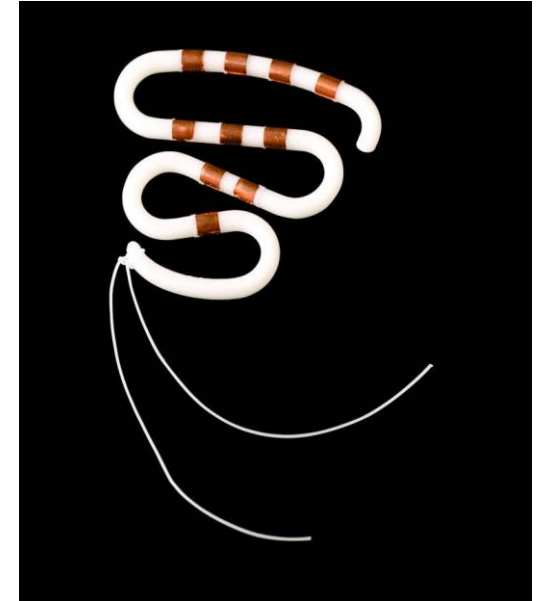
- Intrauterine devices mean inside the uterus. It is inserted into the uterus to prevent conception.
- There are many types of Intrauterine devices but Lippe's loop and copper-T are the most commonly used in India.

a. Lippe's Loop:

- It is simply called "loop" which is a small double S shaped device made up of polyethylene.
- These devices are attached with soft nylon thread so that the loop can be removed easily as and when desired.
- The loop contains a small amount of barium so that it could be seen on X-ray.

b. Copper-T:

- It is made up of polythene and a copper wire is wrapped around the stem of the device which enhances its contraceptive effect.
- Tail of nylon thread is attached to these devices so that Intrauterine devices can be easily removed as and when pregnancy is desired.



3. HORMONAL METHODS:

- Hormonal methods of birth control use hormones to regulate or stop ovulation and prevent pregnancy.
- Ovulation is the biological process in which the ovary releases an egg, making it available for fertilization.
- Hormones can be introduced into the body through various methods, including pills, injections, skin patches, transdermal gels, vaginal rings, intrauterine systems, and implantable rods.
- Depending on the types of hormones that are used, these methods can prevent ovulation; thicken cervical mucus, which helps block sperm from reaching the egg, or thin the lining of the uterus.

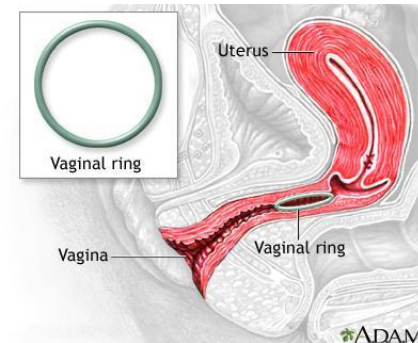
1) Injectable birth control

- This method involves injection of a progestin, Depo- Provera (depot medroxyprogesterone acetate (DMPA)), given in the arm or buttocks once every 3 months.
- This method of birth control can cause a temporary loss of bone density, particularly in adolescents.
- However, this bone loss is generally regained after discontinuing use of DMPA.
- Most patients using injectable birth control should eat a diet rich in calcium and vitamin D or take vitamin supplements while using this medication.



2) Vaginal ring

- The ring is thin, flexible, and approximately 2 inches in diameter. It delivers a combination of ethinyl estradiol and a progestin.
- The ring is inserted into the vagina, where it continually releases hormones for 3 weeks.
- The woman removes it for the fourth week and reinserts a new ring 7 days later.
- A vaginal ring may not be recommended for women with certain health conditions, including high blood pressure, heart disease, or certain types of cancer.



3) Oral contraceptives (OCs, "the pill")

- OCs contains a synthetic estrogen and a progestin, which functions to inhibit ovulation.
- A woman takes one pill daily. preferably at the same time each day.
- Many types of oral contraceptives are available.

a) Combined pill

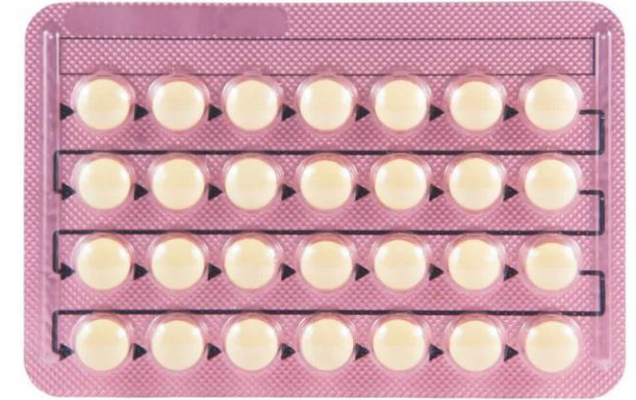
- The **combined pill** contains both progestin and estrogens and is typically taken once a day for 3 weeks to prevent pregnancy and regulate the menstrual cycle.
- The pills taken during the fourth week are inactive (do not contain hormones) and permit menstruation to occur. An example is Yasmin®.



b) Progestin-only pills (POPS)/Minipil

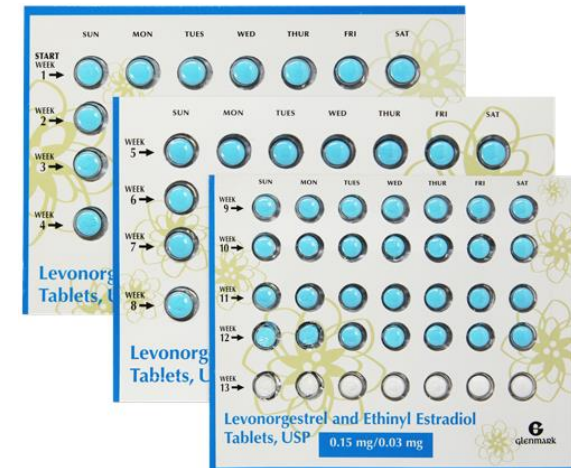
- Containing only low dose of progesterone taken for 28 days.
- A woman takes one pill daily, preferably at the same time each day.
- POPs may interfere with ovulation or with sperm function.
- POPs thicken cervical mucus, making it difficult for sperm to swim into the uterus or to enter the fallopian tube.

Progestin birth control pills



c) Extended cycle birth control pill

- Containing both progestin and estrogens, the **extended cycle birth control pill** is taken once a day in 3-month cycles of 12 weeks of hormone-containing pills followed by 1 week of inactive pills.
- Menstruation occurs during the thirteenth week. An example is Seasonale®.



d) Emergency contraception (EC)

- **Emergency contraception (EC)** also known as the *morning-after pill*, consists of progestin and estrogens or progestin alone to prevent pregnancy following unprotected sexual intercourse.
- The relatively high levels of progestin and estrogens in EC pills provide inhibition of FSH and LH secretion.
- Loss of the stimulating effects of these gonadotropic hormones causes the ovaries to cease secretion of their own estrogens and progesterone.
- In turn, declining levels of estrogens and progesterone induce shedding of the uterine lining, thereby blocking implantation.
- One pill is taken as soon as possible but within 72 hours of unprotected sexual intercourse.
- The second pill must be taken 12 hours after the first.
- The pills work in the same way as regular birth control pills.

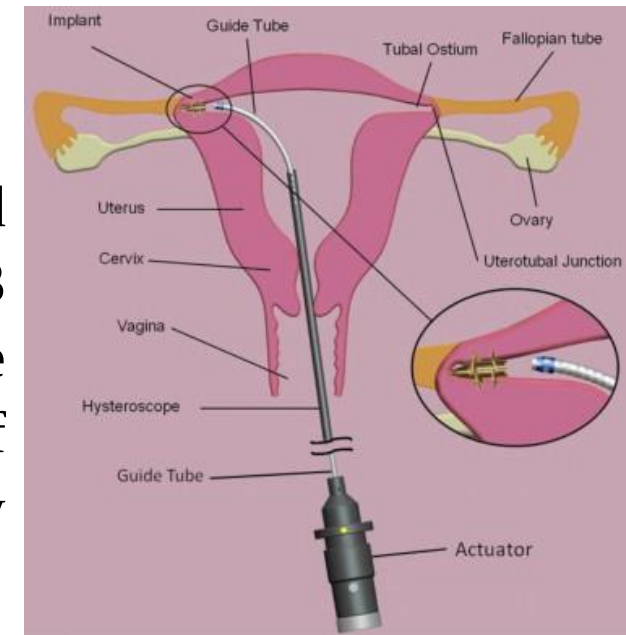
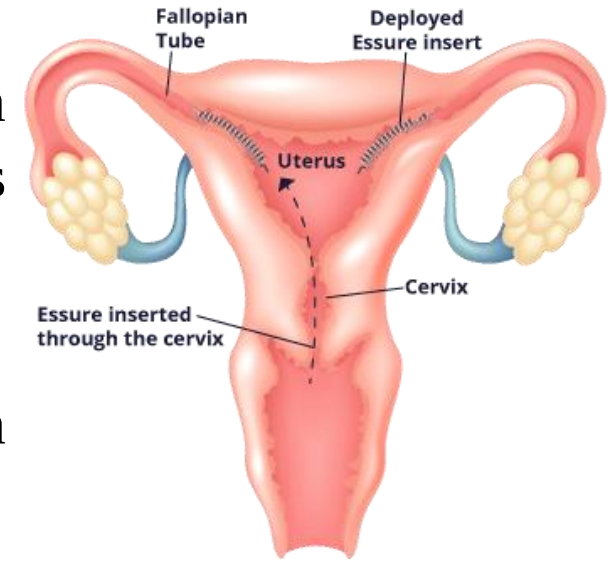


B. PERMANENT METHODS:

The permanent method put an end to the need for contraception through Sterilization which is a permanent form of birth control that either prevents a woman from getting pregnant or prevents a man from releasing sperm.

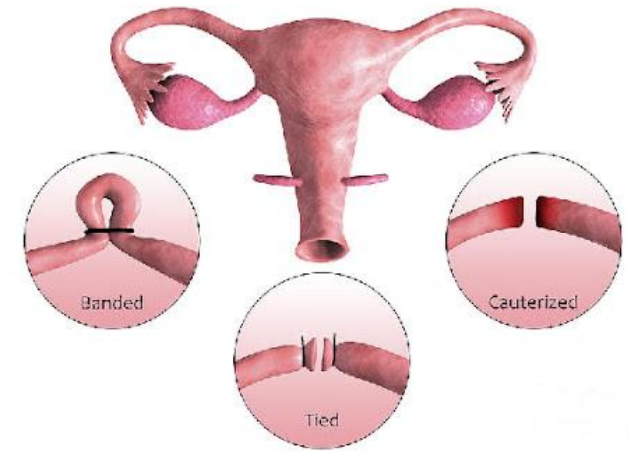
1. Sterilization implant

- It is a nonsurgical method for permanently blocking the fallopian tubes.
- A health care provider threads a thin tube through the vagina and into the uterus to place a soft, flexible insert into each fallopian tube.
- No incisions are necessary.
- During the next 3 months, scar tissue forms around the inserts and blocks the fallopian tubes so that sperm cannot reach an egg. After 3 months, a health care provider conducts tests to ensure that scar tissue has fully blocked the fallopian tubes. A backup method of contraception is used until the tests show that the tubes are fully blocked.



2. Tubal ligation/ Tubectomy

- It is a surgical procedure in which a doctor cuts, ties, or seals the fallopian tubes.
- This procedure blocks the path between the ovaries and the uterus.
- The sperm cannot reach the egg to fertilize it, and the egg cannot reach the uterus.



3. Vasectomy

- It is a surgical procedure that cuts, closes, or blocks the vas deferens.
- This procedure blocks the path between the testes and the urethra.
- The sperm cannot leave the testes and cannot reach the egg.
- It can take as long as 3 months for the procedure to be fully effective.
- A backup method of contraception is used until tests confirm that there is no sperm in the semen.

