



# FAMILY PLANNING-

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# **FAMILY PLANNING**

## **WHO defines family planning as :**

“A way of thinking and living that is adopted voluntarily upon the basis of knowledge, attitude and responsible decisions by individuals and couples, in order to promote the health and welfare of the group and thus contribute effectively to the social development of a community”.

# DEFINITION

**Family planning refers to practices help individuals or couples to attain objectives:**

- To avoid unwanted births
- To bring about wanted births
- To regulate the intervals between pregnancies
- To control the time at which births occur in relation to the ages of the parents
- To determine the number of children in a family

# Scope of family planning services

- The proper spacing and limitation of birth
- Advice on sterility
- Education for parenthood
- Sex education
- Screening for pathological conditions related to the reproductive system
- Genetic counselling

# Scope of family planning services

- Premarital consultation and examination
- Carrying out pregnancy test
- Marriage counselling
- The preparation of couples for the arrival of their first child
- Providing services for unmarried mothers
- Teaching home economics and nutrition
- Providing adoption services

# Health aspects of family planning

The principal health outcomes given **WHO** are:

## Women's Health:

Maternal morbidity, morbidity of women in child bearing age group, nutritional status, preventable complications of pregnancy and abortion

## Foetal Health:

Foetal mortality, abnormal development

## Infant and Child health:

Neonatal, infant and preschool mortality, health of infant at birth, vulnerability of di

## Eligible couples

- An “**eligible couple**” refers to a currently married couple where in wife is in the reproductive age, which is generally assumed to lie between the ages of 15 and 45 years.
- These couples are in need of family planning services.
- On an average 2.5 million couples join the reproductive group every year.

## Target couples

- “**Target couples**” are the couples who have two to three living children, and when family planning was largely directed towards such couples.
- The definition of target couples has gradually enlarged to include families with one child or even newly married couples with a view to develop acceptance of the idea of family planning from the earliest possible stage.



## Couple protection rate (C

- Couple protection rate is an indicator of the prevalence of contraceptive practice in the community.
- It refers to “the percentage of eligible couples effectively protected against birth by one or other approved method of family planning, viz. sterilization, condom or oral pills”.

# CONTRACEPTIVE METH

- “Preventive methods to help w avoid unwanted pregnancies”.
- They include all “temporary” and “permanent” methods.
- There can never be an ideal contra – that is safe, effective, acceptable, inexpensive, reversible, simple to administer, and requiring simple or medical supervision.

# Classification

## 1- Spacing methods:

- Barrier methods
  - Physical methods
  - Chemical methods
  - Combined methods
- Intrauterine devices
- Hormonal methods
- Post-conceptual methods
- Miscellaneous

## 2- Terminal methods:

- Male sterilization
- Female sterilization

# BARRIER METHODS

- Barrier or occlusive methods, suitable for both men and women are available.
- **Aim:** to prevent live sperm from meeting the ovum.
- These methods require a high degree of motivation on the part of user.
- In general they are less effective than the oral or the loop. They are only effective if they are used consistently and carefully.
- Pregnancy rates vary from 2-3 per 100 women.

# A- PHYSICAL METHOD

## I- CONDOM

- This is considered as the simple space method without side effects and prevents both male and female from sexually transmitted diseases.
- This prevents the semen from being deposited in vagina.
- The effectiveness of a condom may be increased by using it in conjunction with spermicidal jelly inserted in the vagina before intercourse.

## Advantages

- Easily Available
- Safe and inexpensive
- Easy to use, do not require medical supervision
- No side effects
- Light, compact and disposable
- Provides protection not only against pregnancy but also against STD

## Disadvantages

- It may slip off and tear during intercourse due to incorrect use
- Interfere with sex sensation locally which some complain while others are used to it.

## Female Condom

- This is a pouch made of polyurethane which lines the vagina.
- An internal ring in the close end of the condom covers the cervix and an external ring remains outside the vagina. It is pre-lubricated with silicon and a spermicide need not to be used.
- It is an effective barrier to STD. Failure rate may vary from 5-21 per 100 women.



## 2- DIAPHRAGM

- This is a vaginal barrier.
- It is a shallow cup made of synthetic rubber or plastic material. It ranges in diameter from 5-10 cm.
- The diaphragm is inserted before sexual intercourse and remains in place for less than 6 hours after sexual intercourse.
- A spermicidal jelly is always used with the diaphragm.

## **Advantages:**

- Primary advantage is the total absence of risks and medical contraindications

## **Disadvantages:**

- Initially a trained person or physician is needed to demonstrate insertion
- After delivery it can only be used when the involution of uterus is complete
- If left in vagina for extended period of time a remote possibility of toxic shock syndrome may occur.

## 3- VAGINAL SPONGE:

- Sponge soaked in vinegar or olive oil is used. It is 5 cm x 2.5 cm, saturated with a spermicidal .
- Failure rate in parous women is 20% per 100 and in nulliparous about 9-20% per 100 women.

## B-CHEMICAL METHOD

- Before the advent of IUDs and oral contraceptives, spermicides (vaginal chemical contraceptives) were widely used.
- **Foams:** foam tablets, foam aerosols
- **Creams, jellies and pastes:** squeezed from a tube
- **Suppositories:** inserted manually
- **Soluble films:** C-film inserted manually

## Disadvantages

- High failure rate
- Must be used almost immediately after intercourse and repeated before ejaculation
- Must be introduced in those regions of the vagina where sperms are likely to be deposited.
- May cause mild irritation or burning besides messiness
- Spermicides are not recommended by professional advisers, they are best used in conjunction with barrier methods

# INTRA-UTERINE DEVI


## Types:

1. Non-medicated or Inert IUD
2. Medicated or bioactive IUD

- **First generation IUDs:** The non medicated or inert
- **Second generation IUDs:** Copper
- **Third generation IUDs:** Hormone releasing

## a-First Generation IUDs

- These usually comprise of inert or non-medicated devices. They appear in different shapes and sizes-loops, spiral, coils, rings.
- **Lippes loop:** This is the best known and most commonly used double S-shaped device.
- A plastic material that is non toxic, non tissue reactive, and extremely durable. The loop has attached thread or tail made of nylon, which projects into the vagina for insertion.

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- This exists in four sizes. A larger size has a greater anti fertility effect and a lower expulsion rate but a higher removal rate because of side effects like pain and bleeding



## **b-Second Generation IUD**


- A new approach was tried in 1970 adding copper to the IUD. The new copper devices are significantly more effective.
- **Multi load and variant of T device**  
Effective life of at least 5 years.
- They can be left in place safely for time, unless specific medical or personal reasons call for earlier removal.

## Advantages of copper device

- Low expulsion rate
- Lower incidence of side effects e.g. and bleeding
- Easier to fit even in nulliparous
- Better tolerated by nullipara
- Increased contraceptive effectiveness
- Effective as post coital contraceptive inserted within 3-5 days of unprotected intercourse.

# Third Generation IUDs

- These are based on another principle of release of hormone.
- **a- Progestasert:**
- Most commonly used device, which is a T-shaped device filled with 3 mcg of progesterone (the natural hormone).
- It is released daily in uterus and has a direct local effect on the uterine lining, the cervical mucus and possibly on sperm.

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- **b- Levonorgestrel:**
  - A potent synthetic steroid, this has an effective life of 10 years.
  - This is associated with lower menstrual blood loss and fewer days of bleeding than copper devices but are more expensive to be used on wider scale.

# Mechanism of action of IUDs

- IUD causes a foreign-body reaction in the uterus causing cellular and biochemical changes in the endometrium and uterine fluids.
- These changes impair the viability of the gamete and thus reduce its chance of fertilization, rather than its implantation.

## Mechanism of Action

- **Medicated IUD:** Produces other effects that may contribute to their contraceptive action.
- Copper seems to enhance the cell response in the endometrium. It also affects the enzymes in the uterus.
- By altering the biochemical composition of cervical mucus, copper ions may affect sperm mobility, capacitation and survival.

## Mechanism of action

- **Hormone-releasing devices:** Increase the viscosity of the cervical mucus thereby prevent sperm from entering the cervix.
- They also maintain high levels of progesterone in the endometrium thus relatively low levels of oestrogen thereby sustaining an endometrium unfavorable to implantation.

## Effectiveness

- IUD is one of the most effective reversible contraceptive method.
- The theoretical effectiveness of IUD is less than that of oral and injectable hormonal contraceptives.
- But since IUD have longer continuation rates than the hormonal pills or injections, the over all effectiveness of IUD and oral contraceptives are about the same in family planning program.




## Change of IUD

- Inert IUD such as lippes loop may be in place as long as required, if there are no side effects.
- Copper devices cannot be used indefinitely because copper corrodes and mineral deposits build up on the coil affecting the release of copper ions.
- The same applies to hormone releasing devices. They have to be replaced periodically.

# Advantages

- Simplicity, no complex procedures are involved in insertion
- Insertion takes only few minutes
- Once inserted IUD stays in place as required
- Inexpensive
- Contraceptive effect is reversible by removal of IUD

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- Virtually free of systemic metabolic effects associated with hormonal p
  - Highest continuation rate
  - There is no need for continual mo  
required to take a pill daily or to u  
barrier method consistently only a  
act of motivation is required

# Contraindications

## **a- Absolute:**

- Suspected pregnancy
- Pelvic inflammatory disease
- Vaginal bleeding of undiagnosed aetiology
- Cancer of the cervix, uterus or adnexa and other pelvic tumours
- Previous ectopic pregnancy

## **b- Relative:**


- Anaemia
- Menorrhagia
- History of PID since last pregnancy
- Purulent cervical discharge
- Distortions of the uterine cavity due to congenital malformations, fibroids
- Unmotivated person

# An ideal IUD candidate

- Who has borne at least one child
- Has no history of pelvic disease
- Has normal menstrual periods
- Is willing to check IUD tail
- Has access to follow up and treatment of potential problems
- Is in monogamous relationship

## Time of insertion

- Although an IUD can be inserted almost anytime during a woman's reproductive years (except pregnancy), the ideal time is during menstruation within 10 days of the beginning of a menstrual period.
- The insertion can also be done during the first week after delivery before the woman leaves the hospital (immediate postpartum insertion)

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- A convenient time for loop insertion is 8 weeks after delivery (post-puerperal insertion)
  - It can also be done after a legally induced first trimester abortion.



# Follow-up

An important aspect is follow-up v usually neglected.

## Objectives:

- To provide motivation and emotional support for the women
- To confirm the presence of the IUI
- Diagnose and treat any side effect complications

## Side effects and complicat

- Bleeding
- Pain
- Pelvic infection
- Uterine perforation
- Pregnancy
- Ectopic pregnancy
- Expulsion
- Fertility after removal
- Cancer and teratogenesis
- Mortality