

## REPRODUCTIVE HEALTH

### POPULATION EXPLOSION AND BIRTH CONTROL

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- ❖ Increased health facilities along with better living conditions had an explosive impact on the growth of population.
- ❖ The world population which was around 2 billion (2000 million) in 1900 rocketed to about 6 billions by 2000.
- ❖ Our population which was approximately 350 million at the time of our independence reached close to the billion mark by 2000 and crossed 1 billion in May 2000.
- ❖ That means, every sixth person in the world is an Indian.
- ❖ A rapid decline in death rate, maternal mortality rate (MMR) and infant mortality rate (IMR) as well as an increase in number of people in reproducible age are probable reasons for this.
- ❖ Through our RCH programmes, though we could bring down the population growth rate, it was only marginal.
- ❖ According to the 2001 census report, the population growth rate was still around 1.7 percent, i.e., 17/1000/year, a rate at which our population could double in 33 years.

#### To motivate smaller families -

- ❖ by using various contraceptive methods.
- ❖ Advertisements - "**Hum Do Hamare Do**"
- ❖ Many couples, have even adopted an '**one child norm**'.
- ❖ Statutory raising of marriageable age of the female to 18 years and that of males to 21 years
- ❖ Contraceptive methods

**An ideal contraceptive -**

- ❖ User-friendly, easily available.
- ❖ effective and reversible with no or least side-effects.
- ❖ It also should in no way interfere with the sexual drive, desire and/or the sexual act of the user.

**Methods Of Contraception**

An ideal contraceptive should be user-friendly, easily available, effective and reversible with no or least side-effects. It also should in no way interfere with the sexual drive, desire and/or the sexual act of the user. A wide range of contraceptive methods are presently available which could be broadly grouped into the following categories, namely Natural/Traditional, Barrier, IUDs, Oral contraceptives, Injectables, Implants and Surgical methods.

**(1).Natural methods :**

- work on the principle of avoiding chances of ovum and sperms meeting. Periodic abstinence is one such method in which the couples avoid or abstain from coitus from day 10 to 17 of the menstrual cycle when ovulation could be expected. As chances of fertilisation are very high during this period, it is called the fertile period. Therefore, by abstaining from coitus during this period, conception could be prevented.
- Withdrawal or coitus interruptus is another method in which the male partner withdraws his penis from the vagina just before ejaculation so as to avoid insemination.
- Lactational amenorrhea (absence of menstruation) method is based on the fact that ovulation and therefore the cycle do not occur during the period of intense lactation following parturition. Therefore, as long as the mother breast-feeds the child fully, chances of conception are almost nil. However, this method has been reported to be effective only upto a maximum period of six months following parturition. As no

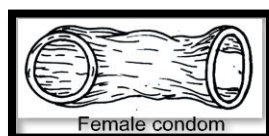
medicines or devices are used in these methods, side effects are almost nil. Chances of failure, though, of this method are also high.

(2). **Barrier methods** - ovum and sperms are prevented from physically meeting with the help of barriers. Such methods are available for both males and females.

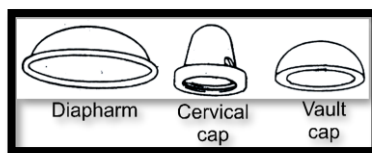
- ❖ **Condoms** - are barriers made of thin rubber/latex sheath that are used to cover the penis in the male or vagina and cervix in the female, just before coitus so that the ejaculated semen would not enter into the female reproductive tract.
- **'Nirodh'** is a popular brand of condom for the male (Manufactured by Hindustan Latex Ltd.).



- Use of condoms has increased in recent years due to its additional benefit of protecting the user from contracting STDs and AIDS.
- Both the male and the female condoms are disposable, can be self-inserted and thereby gives privacy to the user.



- ❖ **Diaphragms, cervical caps and vaults** - are also barriers made of rubber that are inserted into the female reproductive tract to cover the cervix during coitus.



- They prevent conception by blocking the entry of sperms through the cervix.
- They are reusable.

**Note:**

Spermicidal creams, jellies and foams are usually used alongwith these barriers to increase their contraceptive efficiency. They contain nanoxynol.



**(3).Intra uterine devices (IUDS):** These devices are inserted by doctors or expert nurses in the uterus through vagina. These Intra Uterine Devices are presently available as

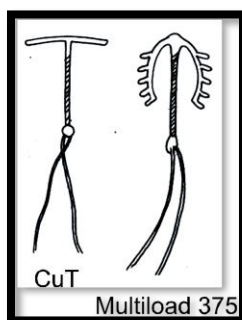
**(a)** The non-medicated IUDs (e.g., Lippes loop, Paragard).

- Surprisingly, the mere presence of an inert foreign body in the uterus somehow prevents pregnancy. Leucocytes accumulate in the uterine fluid in response to the foreign body. They probably destroy the sperms and prevent fertilization at the same time, make the endometrium unsuitable for implantation.

**(b)** Copper releasing IUDs (CuT, Cu7, Multiload 375).

(c) The hormone releasing IUDs (Progestasert, LNG-20).

- IUDs increase phagocytosis of sperms within the uterus.
- The Cu ions released suppress sperm motility and the fertilising capacity of sperms.



- The hormone releasing IUDs, in addition, make the uterus unsuitable for implantation and the cervix hostile to the sperms.



- IUDs are ideal contraceptives for the females who want to delay pregnancy and/or space children.
- It is one of most widely accepted methods of contraception in India.

(4). **Oral contraceptives** - administration of small doses of either progestogens or progestogen–estrogen combinations is another contraceptive method used by the females.

- They are used in the form of tablets and hence are popularly called the pills.



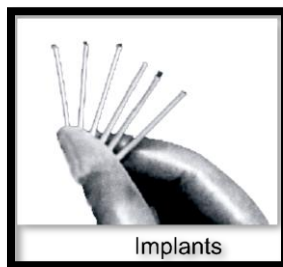
### Oral Contraceptive Pills

- Pills have to be taken daily for a period of 21 days starting preferably within the first five days of menstrual cycle.
- After a gap of 7 days (during which menstruation occurs) it has to be repeated in the same pattern till the female desires to prevent conception.
- They inhibit ovulation and implantation as well as alter the quality of cervical mucus to prevent/ retard entry of sperms.
- Pills are very effective with lesser side effects and are well accepted by the females.
- ❖ **Saheli** – the new oral contraceptive for the females contains a non-steroidal preparation - centchroman. That does not affect ovulation, instead it prevents implantation. Its mechanism of action is based on anti-oestrogenic activity.
- It is a 'once a week' pill with very few side effects and high contraceptive value.
- Mala-D and Mala-N are daily oral contraceptives.

- **Progestogen only pill (POP)**, this pill is commonly referred to as “minipill” or “micropill”. It contains only progesterone, which is given in small dose throughout the cycle. The commonly used progestogens are Levonorgestrel.
  
- The pills
  - (i).Inhibit ovulation
  - (ii).Inhibit implantation
  - (iii).They alter the quality of cervical mucus to prevent/retard the entry of sperms.Pills are very effective with lesser side effects and are well-accepted by the females.
- The oral pills generally contain, progestogen-estrogen combination. A negative feedback on the pituitary by these hormones blocks FSH and LH release so that no ovum develops. They primarily prevent ovulation.

**(5).Injections or implants** - Progestogens alone or in combination with estrogen can also be used by females as injections or implants under the skin.

- Norplant is an implant. Six capsules surgically implanted under the skin, slowly release hormone that blocks ovulation .Works for a period of 5 years.
- DMPA (Depot Medroxy Progesterone Acetate) is contraceptive injection, effective for 3 months.



- Their mode of action is similar to that of pills and their effective periods are much longer.

**Note:**

- Administration of progestogens or progestogen-estrogen combinations or IUDs within 72 hours of coitus have been found to be very effective as emergency contraceptives
- As they could be used to avoid possible pregnancy due to rape or casual unprotected intercourse.

**(6).Surgical methods :**

- Also called **sterilisation**, are generally advised for the male/female partner as a terminal method to prevent any more pregnancies. Surgical intervention blocks gamete transport and thereby prevent conception. Sterilisation procedure in the male is called 'vasectomy' and that in the female, 'tubectomy'.
- In **vasectomy**, a small part of the vas deferens is removed or tied up through a small incision on the scrotum whereas in **tubectomy**, a small part of the fallopian tube is removed or tied up through a small incision in the abdomen or through vagina. These techniques are highly effective but their reversibility is very poor.

