



# REPRODUCTIVE HEALTH

## INTRODUCTION

### 1) DEFINITION

According to WHO, reproductive health means a total well being in all aspects of reproduction, i.e. physical, emotional, social and behavioral.

### 2) REPRODUCTIVE HEALTH : PROBLEMS AND STRATEGIES

India was amongst first countries in the world to initiate action plans to attain reproductive health such as Family Planning Programmes (FPP) in 1951.



### 3) POPULATION STABILISATION

• According to 2011 census, our population growth rate was less than 2 % i.e. 20/1000/year.

Year	World Population	Indian Population
1900	2 billion	350 million
2000	6 billion	1 billion
2011	7.2 billion	1.2 billion

### • REASONS FOR INCREASE IN POPULATION SIZE :

- Decline in death rate.
- Rapid decline in maternal mortality rate (MMR).
- Decrease in infant mortality rate (IMR).
- Increase in number of people in reproductive age.
- Increase in health facilities.

- Measures Taken By Government To Check Population Growth Rate :**
- Motivate smaller families by using various contraceptive methods with slogans "Hum do Hamare do", advertisements and posters.
  - Urban couples adopting : "One child norm".
  - Statutory raising of marriageable age:**
    - Female to 18 years.
    - Male to 21 years.
  - Incentives given to couples with small families.

### 4) BIRTH CONTROL/CONTRACEPTION

#### • Features of an ideal contraceptive:

- User-friendly.
- Easily available.
- Effective.
- Reversible.
- No/least side-effects.
- No interference with libido or act of coitus.

#### • There are two principle methods of birth control:

- Natural methods.
- Artificial methods.

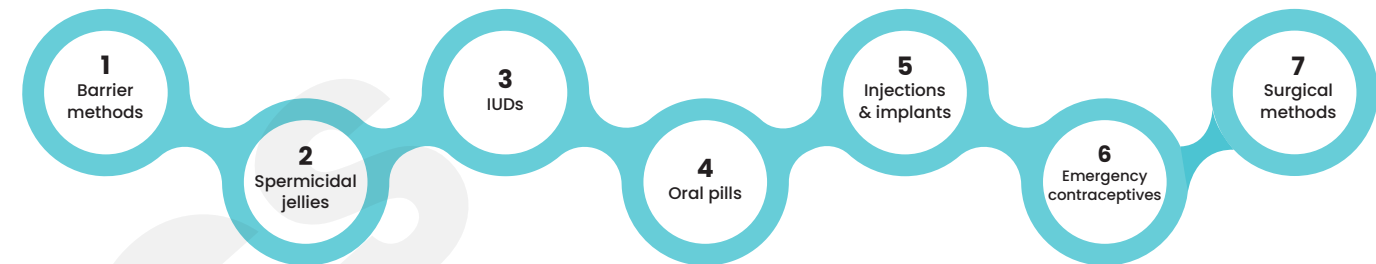
### 5) NATURALTRADITIONAL METHODS

- Principle of avoiding physical meeting of the egg and sperms.
- Chances of failure are high.

Method	Mode of Action (MoA)
Periodic abstinence :	Couples abstain from coitus from day 10 to 17 of the menstrual cycle i.e. fertile period.
Withdrawal method :	Insemination is avoided as the male partner, Coitus interruptus, withdraws his penis from the vagina just prior to ejaculation.
Lactational amenorrhea :	Absence of menstruation upto 6 months during period of intense lactation following parturition.

### 6) ARTIFICIAL METHODS

The various methods of contraception are enlisted below:



### 7) ARTIFICIAL METHODS

#### (i) Barrier methods :

- Prevent ovum and sperm from physically meeting.
- Self inserted and offer privacy to user.

##### (a) Condoms & its types

Made up of rubber and thin latex

Parameter	Male	Female
Region covered	Penis	Vagina and cervix
Provides protection from STIs	Yes	Yes
	Male condom (Nirodh)	Female condom

#### (b) Diaphragms, cervical caps, vaults :

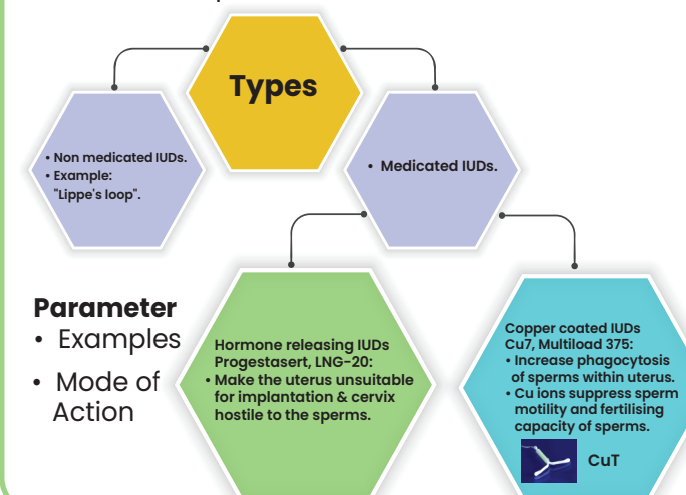
- Rubber barriers that cover the cervix during coitus.
- Reusable.
- Do not protect from STIs.
- Used by females only.

#### (ii) Spermicidal jellies, foams and creams :

- Kill the sperms by creating acidic pH.
- Used along with barrier methods to increase their efficiency.

#### (iii) Intra-uterine devices (IUDs) :

- Inserted by doctors or expert nurses in uterus.
- IUDs are one of the most widely accepted method of contraception in India.



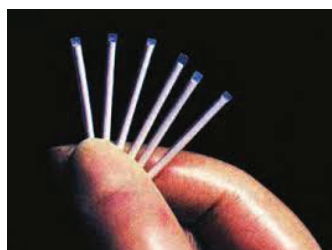
#### (iv) Oral Contraceptive Pills (OCP,) or tablets :

Parameter	Non-steroidal	Steroidal
Example or composition.	Saheli.	Progestogens (Prg) alone or combination of Prg and Estrogens (Est).
Mode of action.	Interferes with implantation.	Inhibit ovulation & implantation; also alter the quality of cervical mucus to retard entry of sperms.
Dosage.	'Once a week' pill.	Pills have to be taken daily for a period of 21 days starting preferably within first 5 days of menstrual cycle.
Effectiveness.	High contraceptive value with very few side effects.	Pills are very effective with lesser side effects & well accepted by females.

Saheli was developed at CDRI, Lucknow, Uttar Pradesh.

#### (v) Implants :

- Placed under skin.
- Effective periods are much longer.
- Composition: Progestagens alone/Combination of Progestagens and Estrogens.
- Mode of Action (MoA).**
  - Inhibit ovulation and implantation.
  - Alter the quality of cervical mucus to retard entry of sperms.
  - Injections usually share similar MoA and composition as implants.



## (VI) Emergency contraceptives :



### Types

- Progestogens.
- Combination of Prg + Est.
- IUDs.

### Charateristics

- Effective within 72 hrs of coitus.
- Used to prevent contraception resulting from rape or unprotected intercourse.

## 8) MEDICAL TERMINATION OF PREGNANCY (MTP)/INDUCED ABORTION :

- **MTP** : Intentional or voluntary termination of pregnancy before full term.
- MTP was legalized in India in **1971**.
- **When can MTP be performed?**
- Unwanted pregnancy due to rape, failure of contraception, casual unprotected intercourse.
- If continuation of pregnancy could harm the mother of foetus or both.

### • Intention behind MTP amendment act 2017 :

- Reduction in the incidence of illegal abortion.
- Decrease consequent maternal mortality and morbidity.
- MTPs are safe upto 12 weeks but riskier in 2nd trimester yet both are legal.
- Amniocentesis and MTPs have been misused in context of female foeticide.

## (VII) Surgical/Sterilisation methods :

- Poor reversibility but highly effective.
- **Mode of action**  
Blocks gamete transport.

### Types



#### Tubectomy

- In females:
- Cut and tie fallopian tubes.
- Incision in abdomen or through vagina.

#### Vasectomy

- In males:
- Cut and tie vas deferens.
- Small incision on the scrotum.

- **Permission of how many medical practitioners is needed for MTP depending on duration of gestation?**

01

less than/upto 12 weeks.

02

More than 12 but less than 24 weeks.

## 9) AMNIOCENTESIS :

- Analyse foetal cells and dissolved substances from amniotic fluids.
- Technique used to check for genetic disorders such as Down's syndrome, hemophilia, sickle-cell anemia etc.
- Statutory ben on this technique in India to prevent female foeticide.

## 10) SEXUALLY TRANSMITTED INFECTIONS (STIS) :

- **Alternately named:** Venereal diseases (VD) or reproductive tract infections (RTIs).
- **High vulnerability/risk group:** 15-24 years.
- **Mode of transmission (MoT):** Sexual intercourse.

Category	Disease
1 Bacterial	Gonorrhea, Syphilis, Chlamydiasis.
2 Protozoan	Trichomoniasis.
3 Viral	Genital herpes, Hepatitis-B, Genital warts, AIDS.

- Bacterial and protozoan diseases are completely curable if detected early and treated properly.
- **Other MoT for hepatitis-B virus and HIV infection include:**
- Sharing of injection needles, surgical instruments with infected persons.
- Transfusion of blood.
- From infected mother to foetus.

### • Symptoms and complications of STIs :

1

#### Early detection

##### Symptoms

Itching, fluid discharge, slight pain, swellings in the genital region.

2

#### Late detection

##### Complications

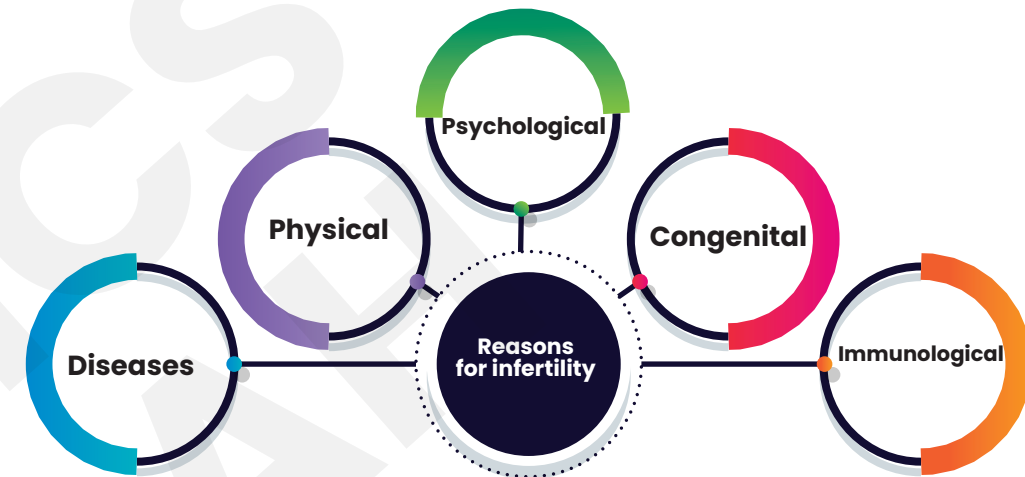
Pelvic inflammatory diseases (PIDs), abortions, still births, ectopic pregnancies, infertility, cancer of reproductive tract.

### • Preventive measures to avoid STIs:

- Avoid sex with unknown partners/multiple partners.
- Always try to use condoms during coitus.

## 11) INFERTILITY

- **Infertile couple** : Unable to produce children inspite of 2 years of unprotected sexual co-habitation.



Help for infertile couples comes in the form of ASSISTED REPRODUCTIVE TECHNOLOGIES (ART).

#### Parameter :

- Site of fertilisation
- Can female produce ova ?
- Embryo transfer.
- Example of techniques.

#### In-vitro fertilisation :

- Outside the body in simulated conditions in laboratory
- Yes
- Yes
- ZIFT, IUT, ICSI

#### in-vivo fertilisation:

- In the female reproductive tract
- No
- No
- GIFT, AI, IUI

### Site of Embryo Transfer (ET) based on number of blastomeres :



#### Parameter :

- Location.
- Technique.

#### Upto 8 blastomeres :

- In fallopian tube.
- ZIFT: zygote Intra fallopian transfer.

#### More than 8 blastomeres:

- In uterus.
- IUT: Intra uterine transfer fallopian transfer.

### • Other details of ART involved :

#### (i) ICSI : Intra cytoplasmic sperm injection :

- Sperm injected directly into the egg.

#### (ii) Artificial Insemination (AI):

- Semen introduced in vagina or uterus.
- Low sperm count or inability of male to inseminate female.
- **IUI** : Intra uterine insemination.

#### (iii) GIFT : Gamete intra fallopian transfer:

- Female can provide conditions for fertilisation and further development.