

# **Reproductive Health**

## **Reproductive Health and Population Explosion**

### **Reproductive health**

- It is defined as the total well being in all aspects of reproduction.
- India as a country ensures reproductive health to all, and since 1951, successive governments have introduced a number of programmes to ensure this, e.g., family planning and RCH (Reproductive and Child Healthcare) programmes.
- The aim of these programmes is to create awareness among people about the various aspects of reproductive health.
- Several audio-visual aids and pamphlets have been developed by both governmental and non-governmental organisations.
- Awareness is being created among school children by introducing sex education in schools.
- It is essential to provide medical assistance to people with problems related to STDs, pregnancy, contraception and infertility, especially in villages.
- Amniocentesis (foetal sex determination) has been banned to check female foeticide.

### **Population Explosion**

- Improvement in the quality of life due to all-round development (better health facilities and improved conditions of living) has lead to a large increase in the world population (around 1 billion in the year 2000).
- The causes of population explosion are:
  - Decline in death rate (including maternal mortality rate and infant mortality rate)
  - Increase in the number of people in the reproducible age
  - Population explosion causes a scarcity of every basic need.
- Therefore, it has become essential to check this increase in population.
- One-child norm, increasing the marriageable age and promoting contraceptive methods are some of the ways to check population explosion.

## Birth Control

Increase in the population density of a country results in a number of social and economic concerns.

- Per capita income gets decreased.
- Health of population is affected.
- Over utilisation of natural resources occurs.

It is essential to educate the people about population explosion and its adverse effects. Some measures that can be taken for the same are:

- Creating awareness among people about advantages of small family.
- Educating married couples to have gaps between two children.
- Advising people about family planning.

Successive governments have come out with various programmes that encourage smaller families by means of various contraceptive methods.

Contraceptive methods are of two types:

- Natural means of contraception
- Artificial means of contraception

### Natural Methods

Avoiding the coming together of ovum and sperm

- **Periodic abstinence:** Avoiding coitus from days 10 to 17 of the menstrual cycle
- **Coitus interruptus:** Withdrawal of penis before ejaculation
- **Lactational amenorrhea:** It is the absence of menstruation during lactation. So, in the lactation period, the chances of conception are almost zero.

### Artificial Methods

- Physically preventing the coming together of ovum and sperm
- **Barriers:** Include condoms, diaphragms, cervical caps and vaults
- **Intra uterine devices (IUDs):** They release hormones to cause phagocytosis of sperms, or they release copper ions to decrease sperm motility.
- **Oral contraceptive pills:** They contain hormones—either progesterone or progesterone–oestrogen combination.

- **Surgical methods:** Include vasectomy (removal of a part of the vas deferens in males) and tubectomy (removal of a part of the fallopian tubes in females)

## Medical Termination of Pregnancy and Sexually Transmitted Diseases

### Medical Termination of Pregnancy (MTP)

- Intentional or voluntary termination of pregnancy before the full term
- Also called induced abortion
- Has a role in decreasing population; becomes essential when continued pregnancy may prove to be fatal to the mother, foetus or to both
- In India, MTP is legal, but with certain strict conditions so as to prevent female foeticide.
- But in some places, MTP is used with amniocentesis, and when the foetus is female, it is aborted. Such practices can prove to be fatal to the mother as well.

### Sexually Transmitted Diseases (STDs)

- Diseases which are transmitted sexually are called STDs.
- Most of the STD's are **venereal diseases** (VD) or **reproductive tract infections** (RTI) but not all the STD's are RTI.
- Some of the STDs are:
  - Gonorrhoea
  - Syphilis
  - Chlamydia
  - Genital herpes
  - Genital warts
  - Trichomoniasis
  - Hepatitis-B

- AIDS (can also be transmitted by sharing injection needles or surgical instruments, blood transfusion, and from the infected mother to the foetus )
- With the exception of AIDS, genital herpes and hepatitis-B, other diseases are curable.
- When not detected and treated in time, they can lead to pelvic inflammatory diseases, abortions, still births, ectopic pregnancies, infertility and even cancer.
- Therefore, prevention, and timely detection and cure of these diseases are essential to ensure reproductive health.
- Some of the preventive measures are:
  - Avoiding sex with unknown/multiple partners
  - Use of condoms
  - To check with a doctor when in doubt

### Infertility

- Many couples all over the world are unable to produce children.
- Some of the reasons for infertility are:
  - Congenital diseases
  - Drugs
  - Immunological and Psychological factors
- Specialised fertility clinics can help diagnose and treat infertility.
- The couples can be assisted to have children through techniques called assisted reproductive technologies (ART).

### Assisted Reproductive Technologies

In vitro fertilisation (IVF): Fertilisation takes place outside the body (test tube baby). The following techniques are included in IVF.

- **Surrogacy**- This is a technique which is used for women who face problem in implantation of embryo in uterus. In this technique the donor of the oocyte is the women itself who has problem in implanting the embryo in the uterus. The collected oocyte is fertilized with the sperm of her

husband in a test tube. The embryo which is obtained after fertilization is implanted in the uterus of another female who is called the surrogate mother.

- **ZIFT** – It stands for zygote intra fallopian transfer. In ZIFT, the sperm from a donor male and the ova from a donor female are fused in the laboratory. The zygote so formed is transferred into the fallopian tube at the 8 blastomeres stage.
- **IUT** – It stands for intra uterine transfer. In this technique, embryos with more than 8 blastomeres are transferred into the uterus.
- **GIFT** – It stands for gamete intra fallopian transfer. In GIFT, females who cannot produce ovum, but can provide suitable conditions for the fertilisation of ovum, are provided with ovum from a donor.
- **ICSI** – It stands for intra cytoplasmic sperm injection. In this method, sperm is directly injected into the cytoplasm of the ovum.
- **Artificial insemination** – In this technique, the semen collected from the husband or a donor is injected into the vagina or uterus. This cures the infertility arising from the inability of the male partner to ejaculate, or due to low sperm count.