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#### WHAT IS REPRODUCTIVE HEALTH?

- Good sexual and reproductive health is a state of complete physical, mental and social well-being in all
  matters relating to the reproductive system. It implies that people are able to have a satisfying and safe
  sex life, the capability to reproduce, and the freedom to decide if, when, and how often to do so.
- To maintain one's sexual and reproductive health, people need access to accurate information and the safe, effective, affordable and acceptable contraception method of their choice. They must be informed and empowered to protect themselves from sexually transmitted infections. And when they decide to have children, women must have access to services that can help them have a fit pregnancy, safe delivery and healthy baby.
- India was amongst the first countries in the world to initiate action plans and programmes at a national level to attain total reproductive health as a social goal.
- The most popular programme named 'Reproductive and Child Health Care (RCH) programmes' is aim to create awareness among people about various reproduction related aspects and provide facilities and support for building up a reproductively healthy society.

### NEED FOR REPRODUCTIVE HEALTH

- With the help of audio-visual and the print-media governmental and non-governmental agencies have taken various steps to create awareness among the people about reproduction-related aspects.
- Parents, other close relatives, teachers and friends, also have a major role in transfering of the above information.
- Introduction of sex education in schools should also be encouraged to provide right information to the young so as to discourage children from believing in myths and having misconceptions about sexrelated aspects.
- Proper information about reproductive organs, adolescence and related changes, safe and hygienic sexual practices, sexually transmitted diseases (STD), AIDS, etc., would help people, especially those in the adolescent age group to lead a reproductively healthy life.
- Educating people, especially fertile couples and those in marriageable age group, about available birth control options, care of pregnant mothers, post-natal care of the mother and child, importance of breast feeding, equal opportunities for the male and the female child, etc., would address the importance of bringing up socially conscious healthy families of desired size.

- Awareness of problems due to uncontrolled population growth, social evils like sex-abuse and sexrelated crimes, etc., need to be created to enable people to think and take up necessary steps to prevent them and thereby build up a socially responsible and healthy society.
- Research on various reproduction-related areas are encouraged and supported by governmental and non-governmental agencies to find out new methods and/or to improve upon the existing ones.

#### WHAT ARE SEXUALLY TRANSMITTED DISEASES?

- Diseases which are transmitted through sexual intercourse are collectively called sexually transmitted diseases (STD).
- Gonorrhoea, syphilis, genital herpes, chlamydiasis, genital warts, trichomoniasis, hepatitis-B and infection of HIV leading to AIDS are some of the common STDs.

#### PREVENTION OF STD

- STIs are a major threat to a healthy society.
- Therefore, prevention or early detection and cure of these diseases are given prime consideration under the reproductive health-care programmes.
- One could be free of these infections by following the simple principles given below:
  - (i) Avoid sex with unknown partners/multiple partners.
  - (ii) Always try to use condoms during coitus.
  - (iii) In case of doubt, one should go to a qualified doctor for early detection and get complete treatment if diagnosed with infection.

### **BIRTH CONTROL**

- Birth control, also known as contraception and fertility control, is a method or device used to prevent pregnancy.
- The most effective methods of birth control are (1) sterilization by means of vasectomy in males and tubal ligation in females, (2) intrauterine devices (IUDs), and (3) implantable birth control. This is followed by a number of (4) hormone-based methods including oral pills, patches, vaginal rings, and injections.
- Less effective methods include (5) physical barriers such as condoms, diaphragms and birth control sponges and (6) fertility awareness methods.
- The least effective methods are
   (7) spermicides and (8) withdrawal by the male before ejaculation.

- (1) Surgical sterilization is available in the form of tubal ligation for women and vasectomy for men. There are no significant long term side effects, and tubal ligation decreases the risk of ovarian cancer. Short term complications are twenty times less likely from a vasectomy than a tubal ligation.
- Sterilization, while highly effective, is not usually reversible; all other methods are reversible, most immediately upon stopping them.
- (2) The current intrauterine devices (IUD) are small devices, often 'T'-shaped, containing either copper or levonorgestrel, which are inserted into the uterus. They are one form of long-acting reversible contraception which are the most effective types of reversible birth control.
- (3) Birth control implant is a matchstick-sized rod that a doctor places under the skin of a woman's upper arm. It releases the same hormone that's in the birth control shot. The failure rate is less than 1%.





- (4) The most common type birth control pill uses estrogen and progestin to prevent ovulation. Women who forget daily pills may use the patch. They wear it on your skin and change it once a week for 3 weeks, then go a week without it. It releases the types of hormones in birth control pills and works just as well. The vaginal ring is a soft plastic ring that goes inside the vagina. It releases the same hormones as the pill and patch, and it works just as well to prevent pregnancy. The birth control injection is called Depo-Provera, and it's a hormonal shot that protects against pregnancy for 3 months.
- (5) The male condom is latex cover that blocks sperm from entering the woman's body, which
  protects against pregnancy and some STDs. Female condom is a thin plastic pouch that lines the
  vagina. A woman can put it in place up to 8 hours before sex. To do that, she would grasp a flexible
  plastic ring at the closed end and guide it into position. Diaphragm is a rubber dome that a woman



places over her cervix before sex. Birth control sponge is made of foam and contains spermicide. A woman can place it against her cervix up to 24 hours before sex.

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(6) Fertility awareness methods involve determining the most fertile days of the menstrual cycle and avoiding unprotected intercourse. Techniques for determining fertility include monitoring basal body temperature, cervical secretions, or the day of the cycle.



- (7) This is a foam, jelly, cream, or film that goes into the vagina before sex that contains a chemical that kills sperm.
- (8) The withdrawal method (also known as coitus interruptus) is the practice of ending intercourse ("pulling out") before ejaculation. The main risk of the withdrawal method is that the man may not perform the maneuver correctly or in a timely manner.
- Safe sex practices, such as with the use of male or female condoms, can also help prevent sexually transmitted infections. Other methods of birth control do not protect against sexually transmitted diseases.
- It needs to be emphasised that the selection of a suitable contraceptive method and its use should always be undertaken in consultation with qualified medical professionals.

### MEDICAL TERMINATION OF PREGNANCY (MTP)

- Intentional or voluntary termination of pregnancy before full term is called medical termination of pregnancy (MTP) or induced abortion.
- Government of India legalised MTP in 1971 with some strict conditions to avoid its misuse. Such restrictions are all the more important to check indiscriminate and illegal female foeticides which are reported to be high in India.
- It is used to get rid of unwanted pregnancies either due to casual unprotected intercourse or failure of the contraceptive used during coitus or rapes. MTPs are also essential in certain cases where continuation of the pregnancy could be harmful or even fatal either to the mother or to the foetus or both.
- MTPs are considered relatively safe during the first trimester, i.e., upto 12 weeks of pregnancy.

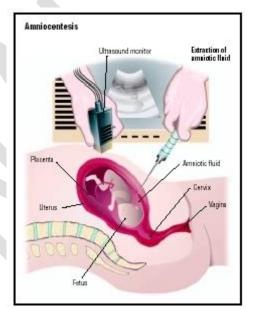
- Mifepristone (mifeprex) and misoprostol are referred to as abortion pills.
- Proper awareness and providing more health care facilities could reverse the unhealthy and illegal trend in our society.



• The word amniocentesis literally means "puncture of the amnion".

• Amniocentesis (also referred to as amniotic fluid test) is a medical procedure used in prenatal

- diagnosis of chromosomal abnormalities and fetal infections, and also for sex determination, in which a small amount of amniotic fluid, which contains fetal tissues, is sampled from the amniotic sac surrounding a developing fetus, and then the fetal DNA is examined for genetic abnormalities.
- After giving local anesthesia, the obstetrician inserts a very fine needle through the woman's abdomen into the uterus and amniotic sac and withdraws approximately 20ml of amniotic fluid for testing. The physician uses ultrasound images to guide needle placement and collect the sample, thereby minimizing the risk of fetal injury and the need for repeated needle insertions.



- After that the woman can take rest in home for two days. The puncture seals and the amniotic sac replenishes the liquid over the next 24–48 hours.
- The sample of amniotic fluid is sent to a laboratory where fetal cells contained in the fluid are isolated and grown in a culture medium in order to provide enough genetic material for testing. This takes about seven to 14 days. The material is then extracted and treated (fixed and stained) so that visual examination (microscopic examination) for abnormalities. The most common abnormalities detected are Down syndrome (trisomy 21), Edwards syndrome (trisomy 18), and Turner syndrome (monosomy X).

### INFERTILITY AND ASSISTED REPRODUCTIVE TECHNOLOGIES

- Infertility is the inability to produce children for a couple in spite of unprotected sexual co-habitation within one year or more.
- Infertility is seen in both males and females, though it is traditional to blame a woman as the cause of infertility if a couple fail to have children. For many couples especially in India, having a child of their own is a very important event in their lives.
- The causes of infertility may be physical, congenital, disease, drug, immunological or even psychological. These can be treated in specialized health care units known as infertility clinics available in India where they could identify the cause of infertility and take up treatment to remove



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the disorder. If any treatment dose not become fruitful then they are advised to use an special reproductive technology known as Assisted reproductive technology (ART).

- ART covers a wide spectrum of treatments. Depending on the cause of infertility, the following types of treatment may be suggested.
- 1) Ovulation induction (OI)
- 2) Artificial insemination (AI)
- 3) Donor conception
- 4) In-vitro fertilisation (IVF)
- 5) Intracytoplasmic sperm injection (ICSI)
- 6) Surrogacy
- Ovulation induction may be used by women who are not ovulating or are not ovulating regularly.
   Ovulation induction involves taking a hormone medication, which encourages the development of one or more follicles. If the couple has intercourse, the chances of conception are greatly increased.
- Artificial insemination, also known as intrauterine insemination (IUI), where woman cannot concieve due to man's inability to cause errection of penis during sexual intercourse.
- Donor eggs, sperms or embryos can be useed to have child by infertile female, male or both.
- IVF is used to achieving pregnancy for women whose fallopian tubes are blocked. In IVF, the woman's eggs are collected, along with sperm from the male partner or donor. The egg and sperm are left in a culture dish in the laboratory to allow the egg to be fertilised. If fertilisation occurs and an embryo develops, the embryo is then placed into the woman's uterus in a procedure called an embryo transfer.
- ICSI is used for the same reasons as IVF, but especially to overcome sperm problems. Essentially, ICSI follows the same process as IVF, except ICSI involves the direct injection of a single sperm into each egg to achieve fertilisation.
- Surrogacy is a form of ART in which a woman (the surrogate) carries a child for another person or couple with the intention of giving the child to that person or couple after birth.