

03

Reproductive Health

01. INTRODUCTION

- **What do we understand by the term “reproductive health”?** The term simply refers to healthy reproductive organs with normal functions. However, it has a broader perspective and includes the emotional and social aspects of reproduction also.
- According to the World Health Organisation (WHO), **reproductive health means a total well-being in all aspects of reproduction, i.e., physical, emotional, behavioural, and social.**
- A society with people having physically and functionally normal reproductive organs and normal emotional and behavioural interactions among them in all sex-related aspects might be called reproductively healthy.

NCERT Question :

What do you think is the significance of reproductive health in a society?

Ans. Reproductive health in a society is significant because the people are aware of

- (i) birth control methods and advantages of small family,
- (ii) sexually transmitted diseases and methods to avoid them,
- (iii) importance breast feeding and post natal care of the mother and baby and
- (iv) equal opportunities for the male and female children.

02. REPRODUCTIVE HEALTH – PROBLEMS AND STRATEGIES

- 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.
- These programmes called **‘family planning’ were initiated in 1951** and were periodically assessed over the past decades. **Improved programmes covering wider reproduction-related areas are currently in operation under the popular name ‘Reproductive and Child Health Care (RCH) programmes.**
- Creating awareness among people about various reproduction related aspects and providing facilities and support for building up a reproductively healthy society are the major tasks under these programmes.

- **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.
- **Successful implementation of various action plans to attain reproductive health requires strong infrastructural facilities, professional expertise and material support. These are essential to provide medical assistance and care to people in reproduction-related problems like pregnancy, delivery, STDs, abortions, contraception, menstrual problems, infertility, etc.**

NCERT Question:

Suggest the aspects of reproductive health which need to be given special attention in the present scenario.

Ans. The aspects of reproductive health which need to be given special attention are :

- Introduction of sex education in schools to give right information to the young minds about reproductive organs, accessory organs of reproduction, secondary sexual characters, adolescence and related changes, safe and hygienic sexual practices, STDs etc.
- Providing knowledge about available birth control methods, care of pregnant mothers, post-natal care of the mother and child, importance of breast feeding etc.
- Creating awareness about consequences of uncontrolled population growth and social evils (sex abuses and sex-related crimes, use of drugs, tobacco and alcohol etc.) among young people.

NCERT Question :

Do you think that reproductive health in our country has improved in the past 50 years? If yes, mention some such areas of improvement.

Ans. Yes, in the last 50 years, reproductive health in our country has improved. Some such areas of improvement are :

- | | |
|--|---------------------------------|
| (i) massive child immunization | (ii) maternity and child health |
| (iii) increasing use of contraceptives | (iv) family planning. |

Bringing sexual and reproductive health services to the millions of people living in countries which still suffer from short life expectancies, high levels of child and maternal mortality, child labour and illiteracy and poor overall health remains a major challenge for governments and non-government organizations.

03. POPULATION EXPLOSION AND BIRTH CONTROL

- The world population which was around 2 billion (2000 million) in 1900 rocketed to about 6 billion by 2000 and 7.2 billion in 2011.
- A similar trend was observed in India too. Our population which was approximately 350 million at the time of our independence reached close to the billion mark by 2000 and **crossed 1.2 billion in May 2011.**
- **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 reproductive 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 2011 census report, the population growth rate was still around 2 per cent i.e. 20/1000/year, a rate at which our population could increase rapidly.**
- Such an alarming growth rate could lead to an absolute scarcity of even the basic requirements, i.e., food, shelter and clothing, in spite of significant progress made in those areas. Therefore, the government was forced to take up serious measures to check this population growth rate.
- The most important step to overcome this problem is to motivate smaller families by using various contraceptive methods. You might have seen advertisements in the media as well as posters/bills, etc., showing a happy couple with two children with a slogan ***Hum Do Hamare Do*** (we two, our two). Many couples, mostly the young, urban, working ones have even adopted 'one child norm'.
- **Statutory raising of marriageable age of the female to 18 years and that of males to 21 years, and incentives given to couples with small families are two of the other measures taken to tackle this problem.**

NCERT Question :

Is sex education necessary in schools? Why?

Ans. Yes, sex education is necessary in school Because introduction of sex education in school encourage to provide the right or correct information to the young peoples so as to discourage children from believing in myths & having misconceptions about sex related aspects. Proper information about reproductive organs, safe & hygienic sexual practices, STD's etc. would help people, those in the adolescent age group to lead a healthy reproductive life. In many countries, sexual education raises much contentious debate. Chief among the controversial points is whether covering child sexuality is valuable or detrimental; the use of birth control such as condoms and hormonal contraception, and the impact of such use on pregnancy, outside marriage, teenage pregnancy, and the transmission of STDs. Increasing support for abstinence – only sex education by conservative groups has been one of the primary causes of the controversies.

NCERT Question :

What are the suggested reasons for population explosion?

04. FAMILY PLANNING

- Family planning refers to practices that help individual to attain certain objectives :
 - (i) To avoid unwanted Births
 - (ii) To bring about wanted birth
 - (iii) To regulate the interval between pregnancies
 - (iv) To determine the number of children in family

NCERT Question :

Removal of gonads cannot be considered as a contraceptive option. Why?

- Methods which prevent unwanted birth or pregnancies are called contraceptive methods.** Contraceptive methods help in family planning.
- 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.**

NCERT Question :

Is the use of contraceptives justified? Give reasons.

- Contraceptives are categorised under temporary and permanent methods.

05. CONTRACEPTIVES METHODS**(A) TEMPORARY OR SPACING METHODS :**

- These are the contraceptive methods which are used to prevent/delay pregnancy and/or space children. They are of the following types.

(I) NATURAL METHODS :

Work on the principle of naturally avoiding chances of ovum and sperms meeting. 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.

Types of Natural Methods-

(i) Rhythm or Periodic abstinence method -

- **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.
- 1st 7 days after Menstruation and 7 days before mensuration is called safe period because in these 14 days ovum is absent in fallopian tubes. Hence fertilization usually does not occur.

(ii) Withdrawal or Coitus interrupts -

- During sexual intercourse, male partner withdraws his penis from vagina just before ejaculation so as to **avoid insemination**.

(iii) Lactational amenorrhea -

- High concentration of prolactin may lead to inhibition of menstrual cycle in lactating mother.
- 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.
- 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 up to a maximum period of six months following parturition**.

(II) CHEMICAL METHOD :

In this method chemicals are used which are spermicidal agent or surface-active agents which attach themselves to spermatozoa and inhibit O_2 uptake and kill sperm.

Example: Vaginal Foam/tablets = 'Today' | Cream or Jelly = "Nim-76"

(III) BARRIER METHODS :

In these methods ovum (egg) and sperms are prevented from physically meeting with the help of barriers.

Examples of Barrier methods :-

(i) Condoms -

- 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 i.e. they prevent insemination.



Fig : Male Condom

- 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.
- **‘Nirodh’ is a popular brand of condom for the male.**

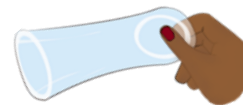


Fig : Female Condom (Femidom)

(ii) Diaphragms, Cervical Caps & Vaults -

- 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 do not prevent insemination but prevent conception by blocking the entry of sperms through the cervix.**
- They are reusable. Spermicidal creams, jellies and foams are usually used along with these barriers to increase their contraceptive efficiency.
- **They do not provide protection against STDs.**



Fig : Cervical cap

(IV) INTRA UTERINE DEVICES (IUDS) :

- IUDs are contraceptive devices that are inserted by doctors or expert nurses in the uterus through vagina.
- IUDs are an ideal contraceptive for the females who want to delay pregnancy or space between children.
- **It is one of most widely accepted methods of contraception in India.**
- These IUDs are of the following types-

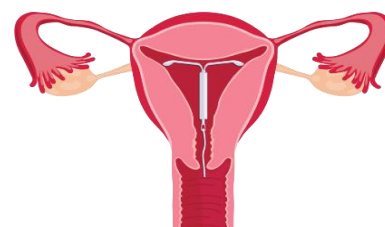


Fig : IUD

(i) Non-medicated IUDs -

- These devices are made of plastic or stainless steel only.
- Mechanism: Non-medicated IUDs, promote the phagocytic cells of uterus to phagocytosis of sperms within the uterus. **e.g.** Lippes loop - made of plastic (Polyethylene).

(ii) Copper releasing IUDs -

- Mechanism: Copper releasing IUDs, release Copper ions which suppress sperm motility and the fertilizing capacity of sperms. **e.g.** CuT, Cu7, Multiload-375



Fig :
Copper
Releasing
IUD

(iii) Hormone releasing IUDs

- Mechanism: The hormone releasing IUDs, make the uterus unsuitable for implantation and the cervix hostile to the sperms.
e.g. Progestasert, LNG-20



Fig :
Hormone
Releasing
IUD

**BEGINNER'S BOX-1****PROBLEMS AND STRATEGIES, CONTRACEPTIVE METHODS-NATURAL, CHEMICAL, BARRIER & IUDs**

- | | |
|--|---------------|
| 1. First country of world which adopted family planning programme -
(1) Japan (2) India (3) USA (4) Bangladesh | BRH092 |
| 2. Government sponsored "family planning programme" started in –
(1) 1947 (2) 1977 (3) 1951 (4) 1955 | BRH093 |
| 3. Which of the following method is based on avoiding insemination?
(1) Lactational amenorrhea (2) Hormonal method
(3) Coitus interrupts (4) Periodic abstinence | BRH094 |
| 4. Lactational amenorrhea is effective only up to a maximum of _____ months.
(1) Two (2) Four (3) Six (4) Eight | BRH095 |
| 5. CuT, Cu7, Multiload-375 are examples of -
(1) Hormone releasing IUDs (2) Non-medicated IUDs
(3) Copper releasing IUDs (4) Barrier methods | BRH096 |
| 6. Which of the following is an IUCD?
(1) Vault (2) Copper-T (3) Condom (4) Cervical cap | BRH097 |
| 7. Which of the following contraceptive device is reusable?
(1) Condom (2) Cervical cap (3) Copper-T (4) LNG-20 | BRH098 |
| 8. Which contraceptive method provides some protection against HIV?
(1) IUD (2) Pills (3) Condom (4) Cervical cap | BRH099 |

(V) Hormonal Methods :

- These are most widely used and most effective methods (almost 100% effective)
- In this method oral pills, injections and implants are used.

(i) Oral Pills -

- Pills are very effective with lesser side effects and are well accepted by the females.**
- The daily oral pills are started preferably within the first five days of menstrual cycle.**



Daily oral pills

- For 1 to 21 days Hormonal pills are given and Iron or Fe pills are given in last 7 days for recovery of blood loss in menstruation flow and to maintain regularity of pills.
- Composition of oral pill
 - (a) Synthetic progesterone – High concentration
 - (b) Synthetic Estrogen – Low concentration
- Mechanism: Action of combination oral pill is to prevent the ovulation from ovary. This is achieved by blocking the pituitary secretion of gonadotropin (FSH and LH) that is necessary for ovulation.
- **Progesterone only preparations render the cervical mucosa thick and scanty this prevent/ retard entry of sperms. So fertilization does not take place.**
- Daily oral pills for females: Mala–N, Mala–D

(ii) **Implants & Injections -**

- Progestogens alone or in combination with estrogen can also be used by females as injections or implants under the skin.
- **In these implants/injections, high level of progesterone Hormone is present which Inhibit secretion of gonadotropins so ovulation in absent. e.g. Norplant (implant)**



Fig : Norplant

(iii) **Male Pill -**

- Progesterone hormone can be used in male oral pills.
- In July 2000 China made progesterone pills for male (first time in world).

(iv) **Saheli :**

- Weekly oral pill
- **Non-steroidal & non-hormonal pill. (Developed by scientists at CDRI Lucknow).**
- Few side effects and high contraceptive value.
- **Mechanism: it blocks oestrogen receptors in uterus and prevents implantation.**



(v) **Emergency Contraceptive Methods :**

- Contraceptives methods which are used within 72 hours of unprotected sexual intercourse are known as emergency contraceptives or **post-coital contraceptives.**

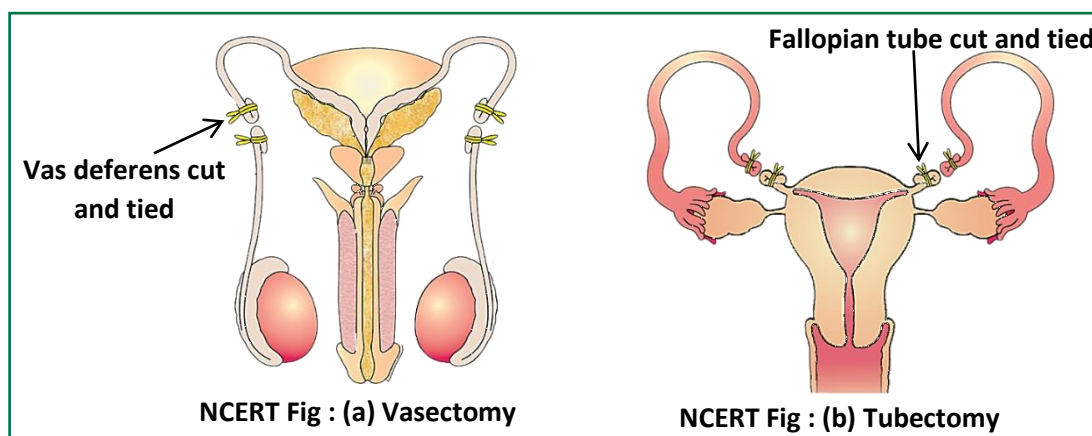


Emergency
contraceptive pill

- (a) Emergency contraceptive pills - progesterone only pill. e.g. i-pill, unwanted-72
- (b) IUDs can also be used as an emergency contraception as they prevent implantation.
- **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.**

(B) TERMINAL METHOD :

- 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.
- **These techniques highly effective but their reversibility is very poor.**



- **For Male: Vasectomy** - A small part of the vas deferens is removed or tied up through a small incision on the scrotum.
- **For Female: Tubectomy** - A small part of the fallopian tube is removed or tied up through a small incision in the abdomen or through vagina.

Important note :-

- **Contraceptives are not regular requirements for the maintenance of reproductive health. In fact, they are practiced against a natural reproductive event, i.e. conception/pregnancy.**
- **One is forced to use these methods either to prevent pregnancy or to delay or space pregnancy due to personal reasons.**
- No doubt, the widespread use of contraceptive methods has a significant role in checking uncontrolled growth of population. However, **their possible ill-effects like nausea, abdominal pain, breakthrough bleeding, irregular menstrual bleeding or even breast cancer, though not very significant, should not be totally ignored.**

06. MEDICAL TERMINATION OF PREGNANCY (M.T.P.)

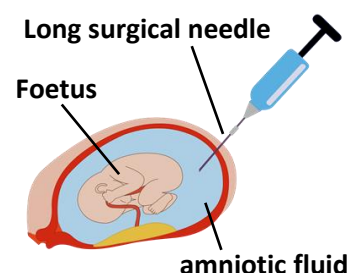
- Intentional or voluntary termination of pregnancy before full term is called medical termination of pregnancy (MTP) or induced abortion.
- **It is relatively safe during the 1st trimester (up to 12 weeks of pregnancy) and more risk in 2nd trimester.**
- Why MTP? obviously the answer is to get rid of 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.
- **Nearly 45 to 50 million MTPs are performed in a year all over the world which accounts to 1/5th of the total number of conceived pregnancies in a year. Obviously, MTP has a significant role in decreasing the population though it is not meant for that purpose.**
- Whether to accept / legalise MTP or not is being debated upon in many countries due to emotional, ethical, religious and social issues involved in it. **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.
- **The Medical Termination of Pregnancy (Amendment) Act, 2017 was enacted by the government of India with the intension of reducing the incidence of illegal abortion and consequent maternal mortality and morbidity.**
- According to this Act, a pregnancy may be terminated on certain considered grounds **within the first 12 weeks of pregnancy on the opinion of one registered medical practitioner.**
- **If the pregnancy has lasted more than 12 weeks, but fewer than 24 weeks, two registered medical practitioners must be of the opinion,** formed in good faith, that the required ground exist. The grounds for such termination of pregnancies are:
 - (i) The continuation of the pregnancy would involve a risk to the life of the pregnant woman or of grave injury physical or mental health.

OR

- (ii) There is a substantial risk that of the child were born, it would suffer from such physical or mental abnormalities as to be seriously handicapped.

07. AMNIOCENTESIS

- In the 14th to 16th week of pregnancy with the help of long surgical needle, amniotic fluid is taken out from the uterus. In this fluid, few cell of embryo (skin, liver and placenta) are present.
- These cells are tested to know –
 - Genetic disorder/chromosomal abnormalities like Down syndrome.
 - Metabolic disorder (deficiency of protein, enzymes, hormones).
 - Detection of Sex (Barr bodies).
- There is statutory ban on amniocentesis for sex-determination to legally check increasing female foeticides.**

**NCERT Question :**

Amniocentesis for sex determination is banned in our country. Is this ban necessary? Comment.

**BEGINNER'S BOX-2****HORMONAL METHODS, EMERGENCY CONTRACEPTIVES, TERMINAL METHOD, MTP & AMINOCENTESIS**

- Which of the following is a non-steroidal pill?
 (1) Mala-D (2) Saheli (3) Mala-N (4) i-pill
 BRH100
- Which of the following is an example of implant?
 (1) Saheli (2) Unwanted-72 (3) Norplant (4) Mala-D
 BRH101
- Hormonal methods work mainly by preventing -
 (1) ovulation (2) implantation (3) insemination (4) parturition
 BRH102
- Full form of MTP is:
 (1) Maximum termination of pregnancy (2) Medical termination of population
 (3) Multiple temporary pregnancy (4) Medical termination of pregnancy
 BRH103
- MTP is relatively safe during?
 (1) 12 week (2) 18 week (3) First trimester (4) Both (1) & (3)
 BRH104
- Tubectomy, a method of population control is performed on:
 (1) Both males & females (2) Males only
 (3) Females only (4) Pregnant females
 BRH105
- Purpose of tubectomy is to prevent:
 (1) Fertilisation (2) Coitus (3) Egg formation (4) Follicle development
 BRH106

NCERT Question :

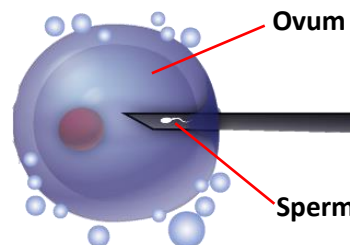
Suggest some methods to assist infertile couples to have children.

08. INFERTILITY

- If couples are unable to produce children in spite of unprotected sexual cohabitation up to 2 years this is called infertility.
- The reasons for this could be many—physical, congenital, diseases, drugs, immunological or even psychological.
- Specialised health care units (infertility clinics, etc.) could help in diagnosis and corrective treatment of some of these disorders and enable these couples to have children.
- However, where such corrections are not possible, **the couples could be assisted to have children through certain special techniques commonly known as assisted reproductive technologies (ART) categorised under two types –**

(A) IN-VITRO FERTILISATION (TEST TUBE BABY) :

- Fertilisation occurs outside the body of female in almost similar conditions as that in the body and after it, **embryo is transferred into fallopian tube or uterus** of surrogate mother or same mother.
- Sperms and egg can be made to fertilize in an artificial medium similar to the medium in fallopian tube or ICSI can be used.



(a) Intra-cytoplasmic Sperm Injection (ICSI) - It is a specialised procedure to form an embryo in the laboratory in which a sperm is directly injected into the cytoplasm of ovum.

EMBRYO TRANSFER (ET) METHODS :

- (b) Zygote Intra Fallopian Transfer (ZIFT)** – Zygote or early embryos (with up to eight blastomere) could be transferred into the fallopian tube of surrogate or same mother.
- (c) Intra Uterine Transfer (IUT)** – Embryo with more than eight blastomeres (**commonly 32 cells stage**) are transferred into uterus.

(B) IN-VIVO FERTILISATION :

Fertilisation occurs inside the body of female, either naturally or artificially.

- (a) **Gamete Intra Fallopian Transfer (GIFT) – Transfer of an ovum** collected from ovary into the fallopian tube of same female or female who can't produce one, but can provide suitable environment for fertilisation, this is called GIFT.
- (b) **Artificial insemination** – If male is unable to inseminate the semen into vagina or if there is very low sperm count in the semen then semen is artificially introduced either into vagina or **into the uterus of the female (intrauterine insemination) IUI**.

09. SEXUALLY TRANSMITTED INFECTIONS (STIS)

- Diseases or infections which are transmitted through sexual intercourse are collectively called **sexually transmitted infections (STI) or venereal diseases (VD) or reproductive tract infections (RTI)**.

Disease	Pathogen	Microbes' type
Gonorrhoea	Neisseria gonorrhoeae	Bacteria
Syphilis	Treponema pallidum	Bacteria
Genital herpes	Herpes simplex	Virus
Chlamydiasis	Chlamydia trachomatis	Bacteria
Genital warts	Human papilloma	Virus
Trichomoniasis	Trichomonas vaginalis	Protozoa
Hepatitis-B	Hepatitis-B	Virus
AIDS	HIV	Virus

- HIV infection is most dangerous.
- Some of these infections like hepatitis-B and HIV can also be transmitted by sharing of injection needles, surgical instruments, etc., with infected persons, transfusion of blood, or from an infected mother to the foetus too.
- Except for hepatitis-B, genital herpes and HIV infections, other diseases are completely curable if detected early and treated properly.**
- Early symptoms of most of these are minor and include itching, fluid discharge, slight pain, swellings, etc., in the genital region.
- Infected females may often be asymptomatic and hence, may remain undetected for long.**

- Absence or less significant symptoms in the early stages of infection and the social stigma attached to the STDs, deter the infected persons from going for timely detection and proper treatment.
- This could lead to complications later, which include pelvic inflammatory diseases (PID), abortions, still births, ectopic pregnancies, infertility or even cancer of the reproductive tract. **STDs 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.
- Though all persons are vulnerable to these infections, their incidences are reported to be very high among persons in the age group of 15-24 years – the age group to which you also belong.

NCERT Question :

Correct the following statements :

- (a) Surgical methods of contraception prevent gamete formation.
- (b) All sexually transmitted diseases are completely curable.
- (c) Oral pills are very popular contraceptives among the rural women.
- (d) In E. T. techniques, embryos are always transferred into the uterus.

Ans.

- (a) Surgical methods of contraception prevent gamete transport & thereby prevent conception.
- (b) Except for hepatitis-B, genital herpes, and HIV infections, other STD diseases are completely curable if detected early and treated properly.
- (c) Oral pill are very popular contraceptives among the educated urban women.
- (d) In E.T. techniques, embryos with 8 blastomeres are transferred into fallopian tube and more than 8 blastomeres are transferred

NCERT Question :

What are the measures one has to take to prevent from contracting STDs?

- One could be free of these infections if one follows the simple principles given below:
 - (i) Avoid sex with unknown partners/multiple partners.
 - (ii) Always use condoms during coitus.
 - (iii) In case of doubt, go to a qualified doctor for early detection and get complete treatment if diagnosed with disease.

NCERT Question :

State True/False with explanation

- (a) Abortions could happen spontaneously too. (True/False)
- (b) Infertility is defined as the inability to produce a viable offspring and is always due to abnormalities/defects in the female partner. (True/False)
- (c) Complete lactation could help as a natural method of contraception. (True/False)
- (d) Creating awareness about sex related aspects is an effective method to improve reproductive health of the people. (True/False)

Ans.

- (a) True, Due to internal factors like incompatibility, abortion could happen spontaneously.
- (b) False, It is due to abnormalities/defects in either male or female or both the partners.
- (c) True, but it is limited to period up to six months after parturition.
- (d) True, Creating awareness about sex-related aspects removes the myths and misconceptions about these problems.

Note : Failure rate is further less when these methods are used correctly and consistently.

★ **Golden Key Points** ★

- IUDs increase phagocytosis of sperms within the uterus.
- Progestasert and LNG-20 are hormone releasing IUDs.
- Vasectomy doesn't prevent spermatogenesis. It only blocks the transfer of sperms.
- In tubectomy, a small part of the fallopian tube is removed or tied up.
- MTPs are considered relatively safe during the first trimester, i.e., up to 12 weeks of pregnancy.
- Assisted reproductive technology, IVF (In vitro fertilisation) involves transfer of either zygote or early embryo (with up to eight blastomeres) into the fallopian tube; or embryo with more than eight blastomeres in to the uterus.



BEGINNER'S BOX-3

INFERTILITY AND SEXUALLY TRANSMITTED INFECTIONS (STIs)

1. In which of the following technique is in-vivo?
(1) ZIFT (2) ICSI (3) GIFT (4) IUT BRH107
2. In which of the following methods zygote up to 32 blastomere is transferred into the uterus?
(1) IUT (2) GIFT (3) ZIFT (4) ICSI BRH108
3. If male is impotent and female is normal then which of the following technique can be used?
(1) ICSI (2) ZIFT (3) GIFT (4) AI BRH109
4. Fertilisation outside the body in almost similar conditions as that in the body is termed as-
(1) In vitro fertilisation (2) Artificial Insemination
(3) In vivo fertilisation (4) G.I.F.T. BRH110
5. The age group of _____ years is quite vulnerable to STDs.
(1) 10 to 19 (2) 15 to 22 (3) 15 to 24 (4) 17 to 27 BRH111
6. Which STI is not completely curable :-
(1) Syphilis (2) Chlamydisias (3) Both (1) and (2) (4) Genital herpes BRH112
7. Which of the following is not a sexually transmitted disease?
(1) Cancer
(2) Acquired Immuno Deficiency Syndrome (AIDS)
(3) Genital warts
(4) Syphilis BRH113
8. Which among the following diseases are completely curable if detected in early stages?
(1) HIV infection (2) Chlamydisias (3) Hepatitis B (4) Genital herpes BRH114



BEGINNER'S BOX

ANSWERS KEY

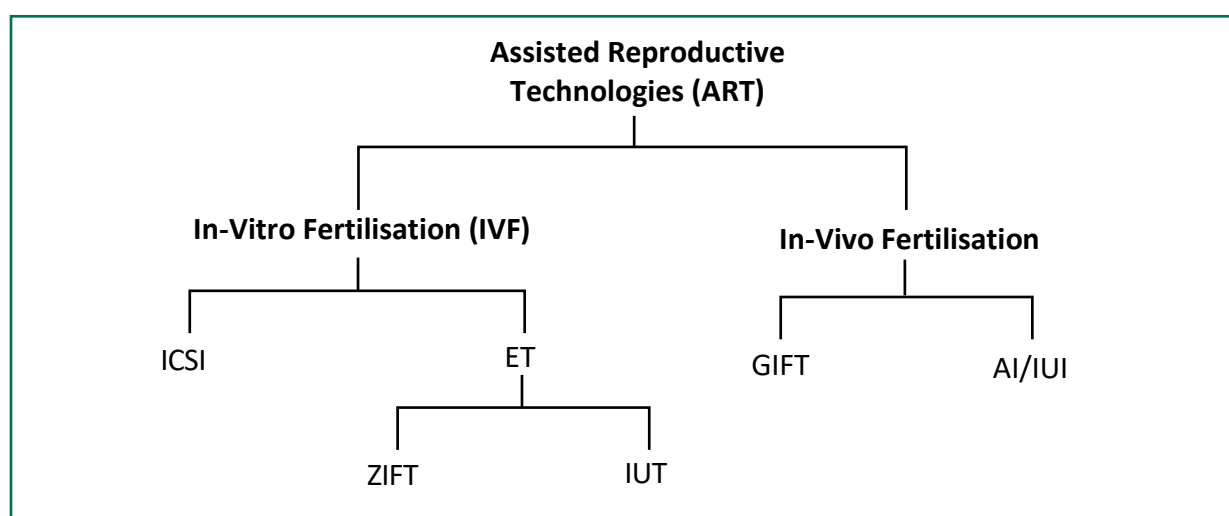
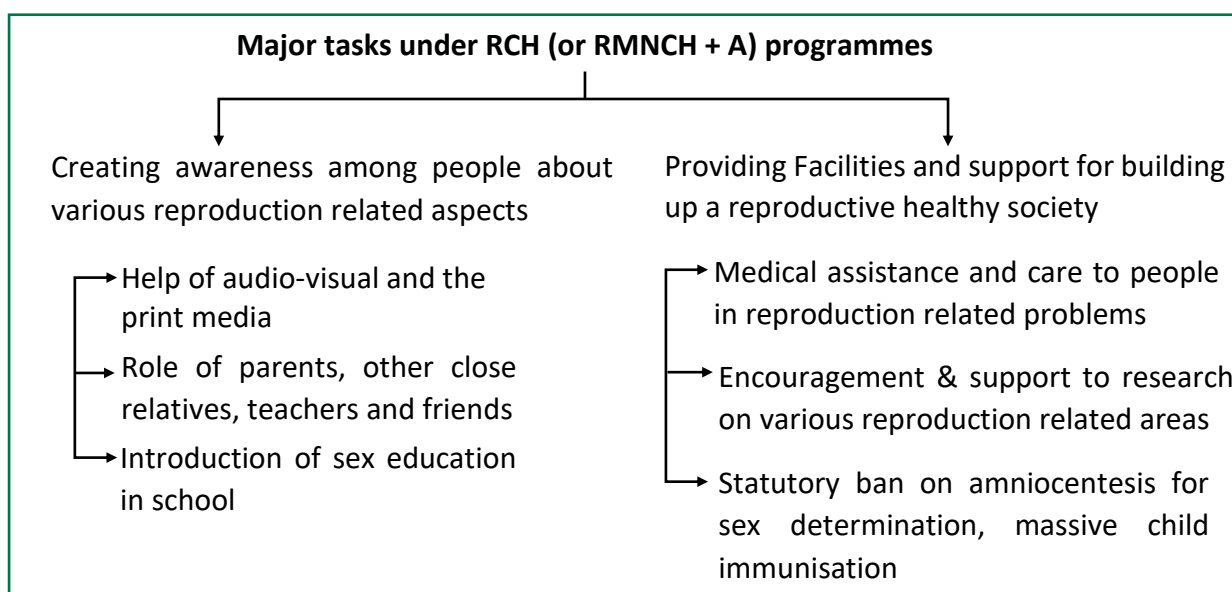
BEGINNER'S BOX-1	Que.	1	2	3	4	5	6	7	8	
	Ans.	2	3	3	3	3	2	2	3	

BEGINNER'S BOX-2	Que.	1	2	3	4	5	6	7	
	Ans.	2	3	1	4	4	3	1	

BEGINNER'S BOX-3	Que.	1	2	3	4	5	6	7	8	
	Ans.	3	1	4	1	3	4	1	2	



1. **Reproduction related aspects :-** Reproductive organs, adolescence and related change, safe and hygienic sexual practices, sexually transmitted diseases (STD), AIDS, 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, problem due to uncontrolled population growth, social evils like sex abuse and sex related crimes, etc.



NCERT SUMMARY

Reproductive health refers to a total well-being in all aspects of reproduction, i.e., physical, emotional, behavioural and social. Our nation was the first nation in the world to initiate various action plans at national level towards attaining a reproductively healthy society.

Counselling and creating awareness among people about reproductive organs, adolescence and associated changes, safe and hygienic sexual practices, sexually transmitted infections (STIs) including AIDS, etc., is the primary step towards reproductive health. Providing medical facilities and care to the problems like menstrual irregularities, pregnancy related aspects, delivery, medical termination of pregnancy, STIs, birth control, infertility, post natal child and maternal management is another important aspect of the Reproductive and Child Health Care programmes.

An overall improvement in reproductive health has taken place in our country as indicated by reduced maternal and infant mortality rates, early detection and cure of STIs, assistance to infertile couples, etc. Improved health facilities and better living conditions promoted an explosive growth of population. Such a growth necessitated intense propagation of contraceptive methods. Various contraceptive options are available now such as natural, traditional, barrier, IUDs, pills, injectables, implants and surgical methods. Though contraceptives are not regular requirements for reproductive health, one is forced to use them to avoid pregnancy or to delay or space pregnancy.

Medical termination of pregnancy is legalised in our country. MTP is generally performed to get rid of unwanted pregnancy due to rapes, casual relationship, etc., as also in cases when the continuation of pregnancy could be harmful or even fatal to either the mother, or the foetus or both.

Infections or diseases transmitted through sexual intercourse are called Sexually Transmitted Diseases (STDs). Pelvic Inflammatory Diseases (PID), still birth, infertility are some of the complications of them. Early detection facilitate better cure of these diseases. Avoiding sexual intercourse with unknown/multiple partners, use of condoms during coitus are some of the simple precautions to avoid contracting STDs.

Inability to conceive or produce children even after 2 years of unprotected sexual cohabitation is called infertility. Various methods are now available to help such couples. *In Vitro* fertilisation followed by transfer of embryo into the female genital tract is one such method and is commonly known as the 'Test Tube Baby' Programme.