FREE NOTES · NCERT + NEET LEVEL

Reproductive Health

Reproductive health problems and strategies, population stabilisation and birth control, contraceptive methods, medical termination of pregnancy, sexually transmitted infections, infertility and assisted reproductive technologies.

01 Reproductive health
02 Population and birth control
03 Contraceptive methods
04 Medical termination of pregnancy
05 Sexually transmitted infections
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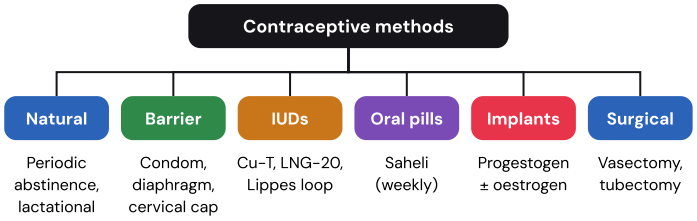
01 Reproductive health

- WHO: total well-being in all aspects of reproduction: physical, emotional, behavioural, social.
- India was among the first countries to start national family planning (1951); now **RCH** (Reproductive and Child Health Care) programmes.
- Strategies: sex education in schools, awareness about STIs, AIDS, birth control, care of pregnant mothers, post-natal care, breastfeeding, equal opportunities for boy and girl child.
- Statutory ban on **amniocentesis** for sex determination (to stop female foeticide). Amniocentesis is meant to detect genetic disorders in foetus.

02 Population and birth control

- World population ~2 billion (1900) → ~6 billion (2000); India ~350 million at independence, crossed 1 billion in May 2000. Reasons: decline in death rate, MMR (maternal mortality rate) and IMR (infant mortality rate), more people in reproductive age.
- Measures: contraception, raising marriageable age (females 18, males 21 years), incentives for small families.
- **Ideal contraceptive**: user-friendly, easily available, effective, reversible, no or least side effects, does not interfere with sexual drive.

03 Contraceptive methods



Types of contraceptive methods

Method	How it works
Natural: periodic abstinence	Avoid coitus on days 10–17 (fertile period)
Withdrawal / coitus interruptus	Withdraw penis before ejaculation
Lactational amenorrhoea	No ovulation during intense lactation; effective up to 6 months after delivery
Barrier	Condoms (also protect from STIs), diaphragms, cervical caps, vaults (reusable); with spermicidal creams
IUDs	Non-medicated (Lippes loop), copper-releasing (CuT, Cu7, Multiload 375: Cu ions suppress sperm motility and fertilising capacity), hormone-releasing (Progestasert, LNG-20: uterus unsuitable, cervix hostile to sperms); increase phagocytosis of sperms. Ideal for spacing children
Oral pills	Progestogens or progestogen–oestrogen combination; inhibit ovulation and implantation, alter cervical mucus. **Saheli** (CDRI Lucknow): non-steroidal, once a week
Injections/implants	Progestogens ± oestrogen under skin; long-lasting
Emergency	Progestogens or combination or IUDs within 72 h of coitus
Surgical (sterilisation)	**Vasectomy** (vas deferens cut, tied) and **tubectomy** (fallopian tube cut, tied); very effective, poorly reversible

04 Medical termination of pregnancy

- Intentional or voluntary termination of pregnancy before full term = MTP / induced abortion. ~45–50 million MTPs per year worldwide (about 1/5 of conceived pregnancies).
- India: MTP Act 1971; amended 2017 to reduce illegal abortion and maternal mortality. Allowed up to 12 weeks on opinion of one registered medical practitioner; 12–24 weeks needs two practitioners (in specified conditions).
- Safe in first trimester (up to 12 weeks). Misuse for female foeticide is illegal and dangerous; unsafe illegal MTPs by unqualified quacks can be fatal.

05 Sexually transmitted infections

- STIs/VD/RTI: gonorrhoea, syphilis, genital herpes, chlamydiasis, genital warts, trichomoniasis, hepatitis B, HIV/AIDS.
- Hepatitis B, genital herpes and HIV infections are not completely curable. Hepatitis B and HIV also spread by sharing injection needles, surgical instruments, transfusion of infected blood, mother to foetus.
- Early symptoms minor (itching, fluid discharge, slight pain, swellings); later: PID (pelvic inflammatory disease), abortions, still births, ectopic pregnancies, infertility, cancer of reproductive tract. Age group 15–24 years most affected.
- Prevention: avoid sex with unknown/multiple partners, always use condoms, consult a doctor early in doubt.

06 Infertility and ART

Technique	What is done
IVF–ET (test tube baby)	Fertilisation outside body in lab; embryo transfer
ZIFT	Zygote or early embryo (up to 8 blastomeres) into fallopian tube
IUT	Embryo with more than 8 blastomeres into uterus
GIFT	Ovum from donor into fallopian tube of female who cannot produce ova but can provide suitable environment
ICSI	Sperm injected directly into ovum
AI / IUI	Semen from husband or donor into vagina or uterus (low sperm count)

Embryos formed by in-vivo fertilisation can also be transferred. Adoption is also a good option for childless couples. Infertility can be due to either partner.

07 Extra + tricks

Barrier	Used by	Reusable	Protects from STIs
Condom (Nirodh)	Male / female	No	Yes
Diaphragm	Female (cervix)	Yes	No
Cervical cap	Female	Yes	No
Vault	Female	Yes	No

- Injectables (**Depo-Provera**, progestogen) work ~2–3 months; **implants** (Norplant-type, under skin) work for years.
- Emergency pills (i-pill type, levonorgestrel) within 72 h; **Mifepristone (RU-486)** is used for medical termination.
- Copper IUD most widely accepted method in India; Multiload 375 releases Cu.
- Trick for ART: **"Z for Zygote in tube, G for Gamete in tube, I for Inside uterus"** = ZIFT (≤8 cells, fallopian tube), GIFT (ovum in tube), IUT (>8 cells, uterus).
- Amniocentesis done around 14–16 weeks: amniotic fluid tested for genetic disorders.

08 Important Q&A

Q1. How do copper-releasing IUDs prevent pregnancy?

Cu ions suppress sperm motility and fertilising capacity; IUDs also increase phagocytosis of sperms in uterus.

Q2. Differentiate ZIFT and IUT.

ZIFT: embryo up to 8 blastomeres into fallopian tube. IUT: embryo with more than 8 blastomeres into uterus.

Q3. Why is amniocentesis banned for sex determination?

To prevent female foeticide; it is meant only for detecting genetic disorders.

09 Common mistakes

- Saying Saheli is a steroidal daily pill (non-steroidal, weekly).
- Thinking all STIs are curable (hepatitis B, herpes, HIV are not).
- Mixing GIFT (gamete) and ZIFT (zygote).
- Saying lactational amenorrhoea works for years (about 6 months).

10 Practice (NEET style)

1. Non-steroidal weekly pill?
2. Surgical method in males?
3. Emergency contraception within?
4. Technique injecting sperm into ovum?
5. Hormone-releasing IUD?

ANSWERS

1) Saheli · 2) Vasectomy · 3) 72 hours · 4) ICSI · 5) LNG-20 / Progestasert

11 Quick revision: 5 minutes before the exam

POPULATION

- Marriage age 18/21
- RCH programmes
- Amniocentesis ban for sex

CONTRACEPTION

- Cu-T, LNG-20
- Saheli weekly
- Vasectomy, tubectomy

MTP/STI

- Safe up to 12 weeks
- HIV, hep B, herpes incurable
- Condoms protect

ART

- IVF-ET test tube
- ZIFT ≤8, IUT >8
- GIFT, ICSI, IUI

Have a doubt? Ask the AI Doubt Solver at padhaiadda.netlify.app, or take the mock test on this chapter.