

# UPDAAN



## 2025

### How Do organisms Reproduce ?

Biology

Lecture - 09

By - SAMRIDHI SHARMA MA'AM



# Topics to be covered

- 1 Reproductive health ✓
- 2 Doubt discussion
- 2 MCQ practice and Homework





Heredity

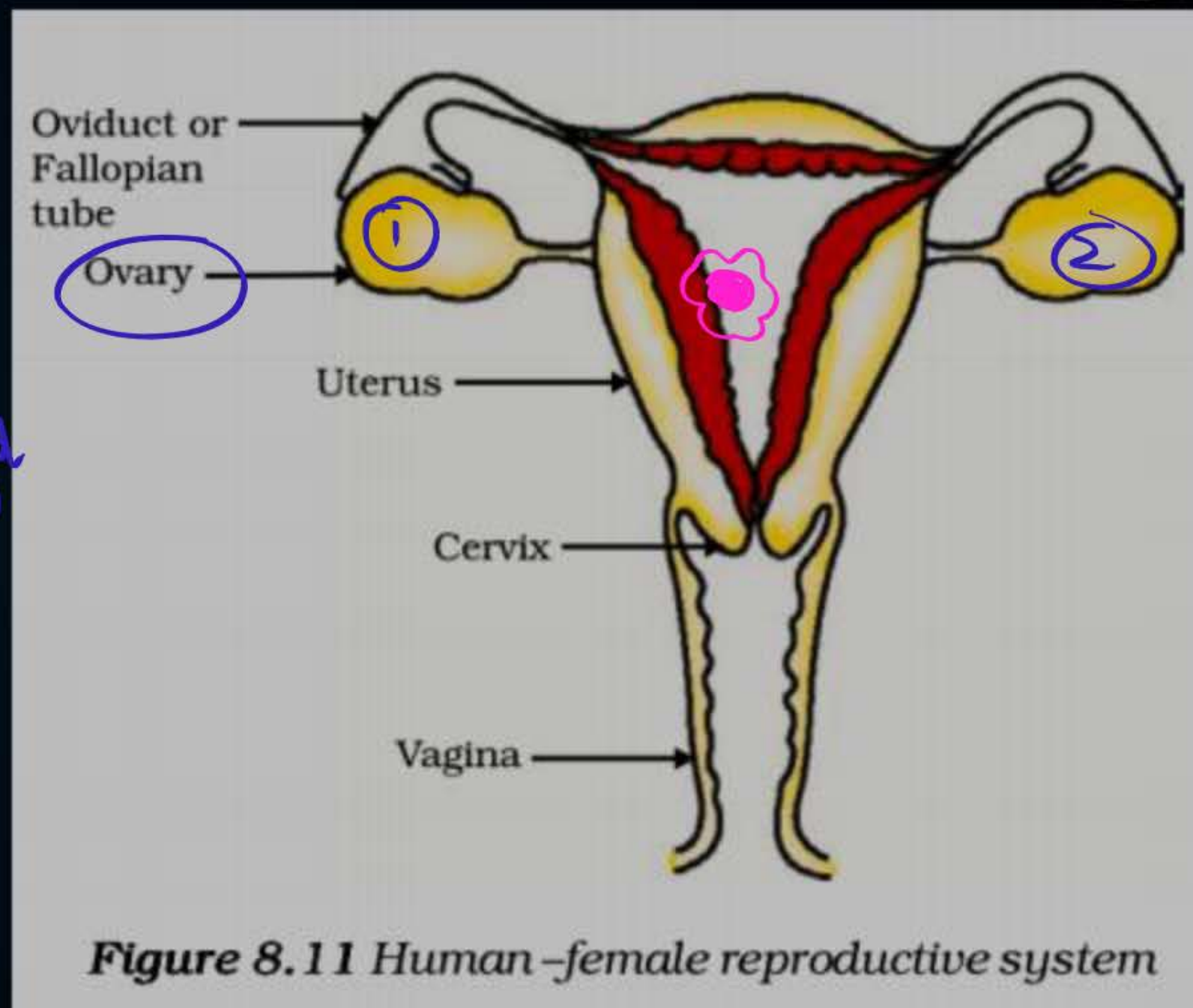
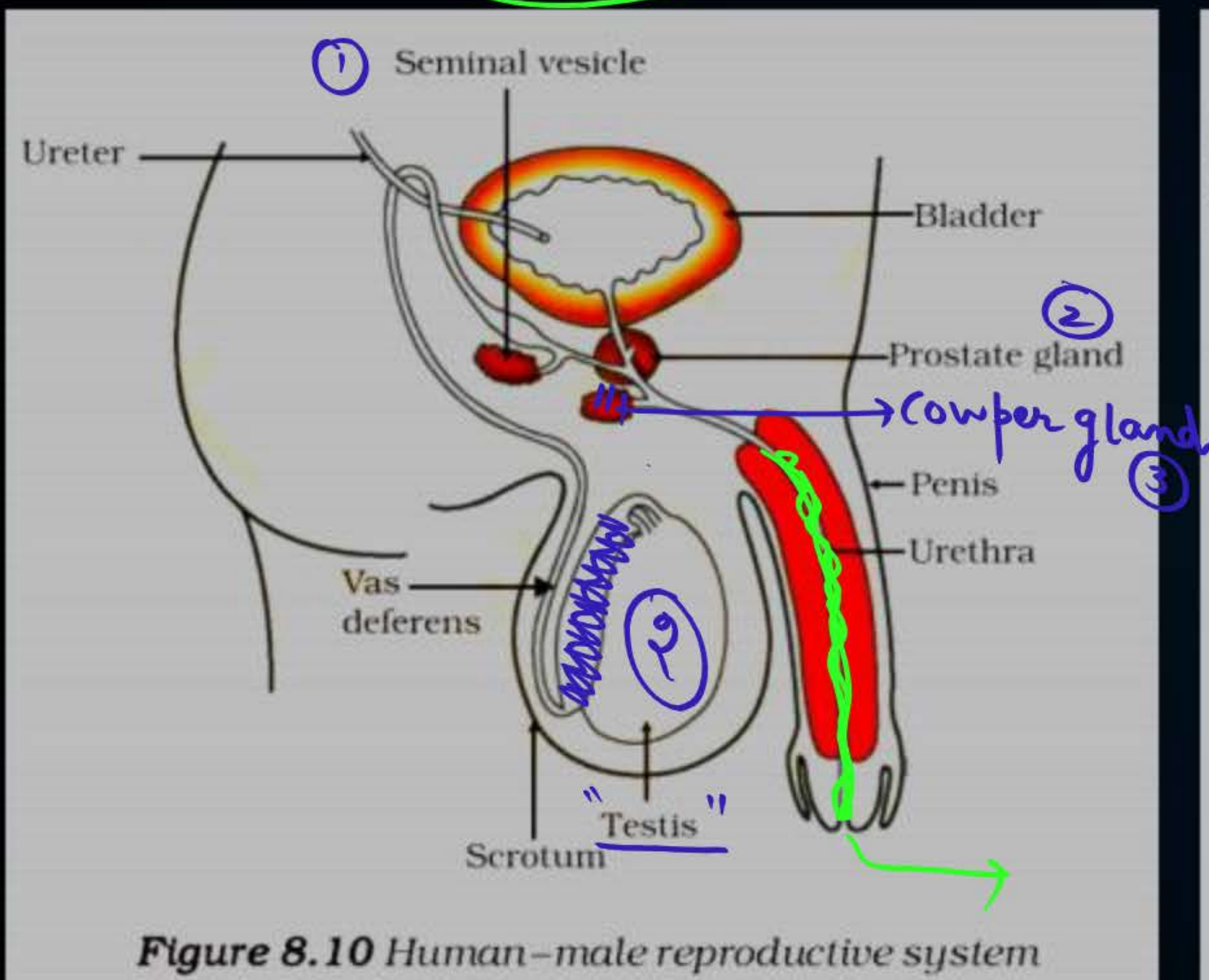
8<sup>th</sup> Sep → 22<sup>nd</sup> Sep

→ Mid-term break ✓

- ✓ → Marathon [Youtube]
- ✓ → Self-Study
- ✓ → Revision

8<sup>th</sup> Sep  
Biology Marathon  
↓  
PW foundation  
YT

# Semen



Ovulation



Fertilisation



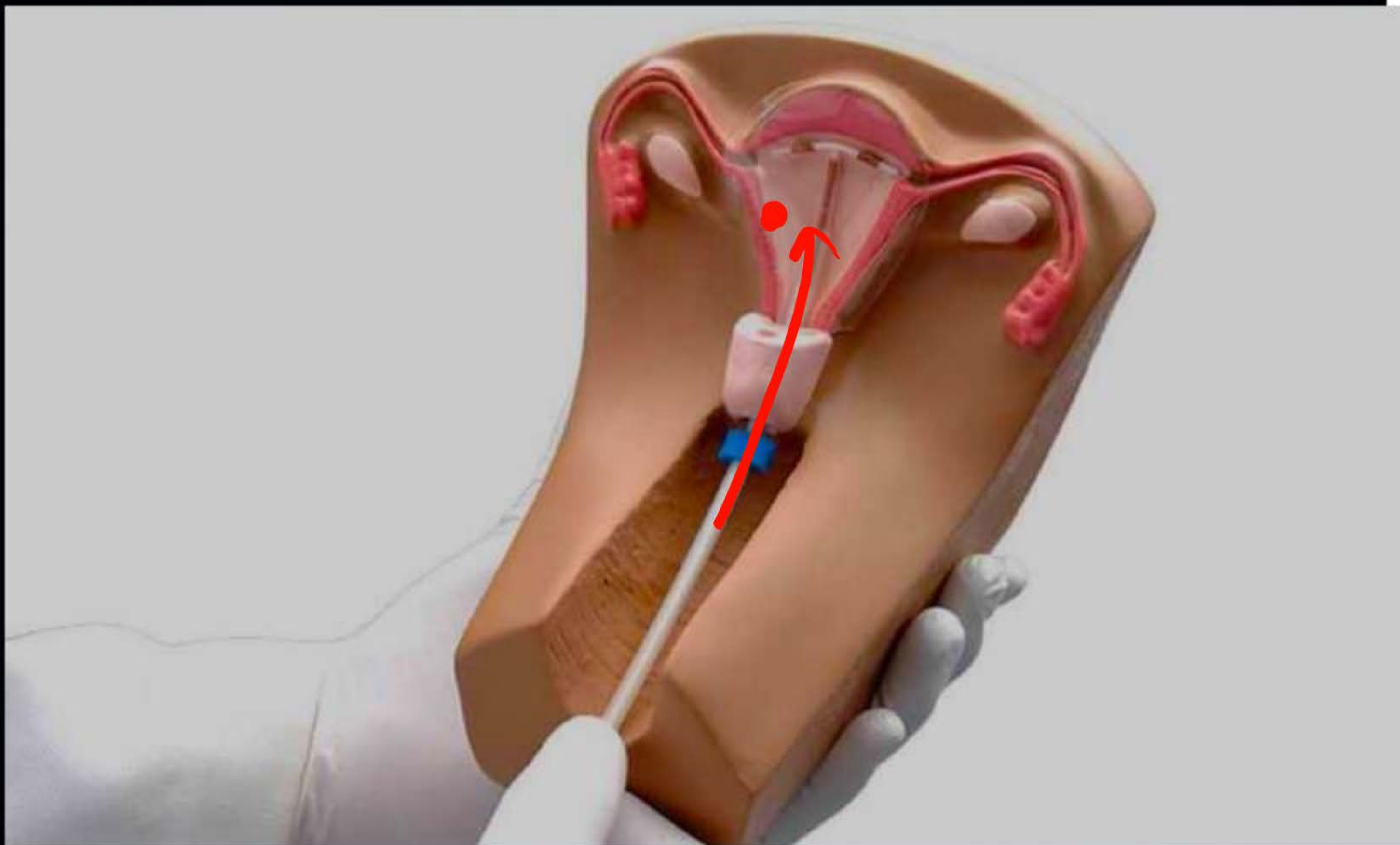
{ Implantation }

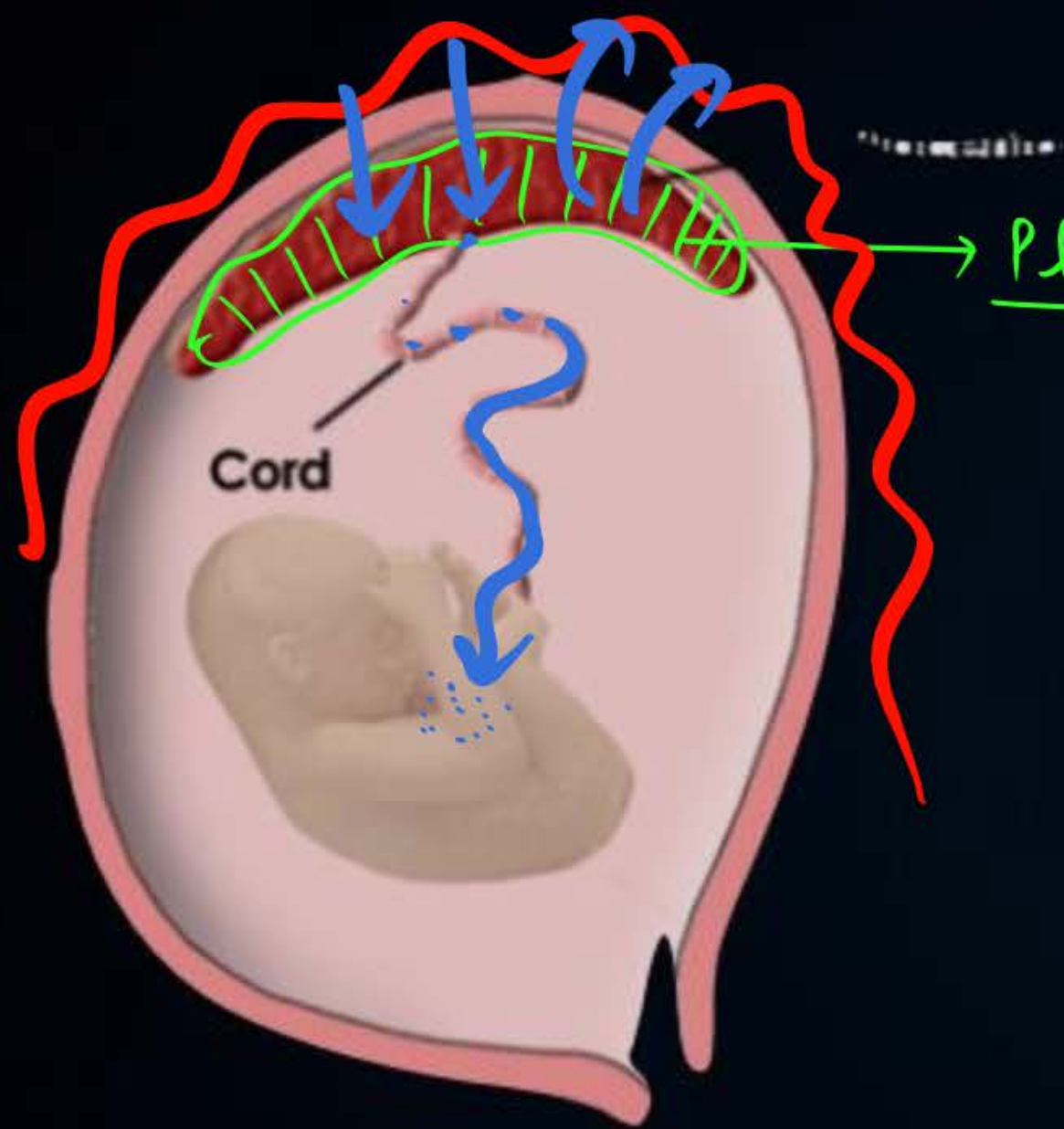


40 weeks [Gestation period]  
9 months

Parturition







Placenta

→ Villi

increase Surface area

↓  
Exchange of Substances



## Question



Which of the following statement is not related to reproduction in Amoeba? → Binary fission

- ① Division of Nucleus
- ② Division of Cytoplasm
- A Karyokinesis is followed by cytokinesis ✓
  - ~~B Cytokinesis is followed by karyokinesis~~ ✗
  - C It shows irregular binary fission ✓
  - D Two daughter cells are produced ✓



## Question



A and B are two reproductive organs/Tissues of females. A is responsible for nourishment of the developing embryo and B is where sperms encounter egg. Identify A and B respectively

- ☐ A Cervix & uterus
- ☐ B Ovary & oviduct
- ☐ C Fallopian tube & placenta
- ☒ D Placenta & oviduct



## Role of hormones in human reproduction :



- Testosterone ✓ → Males → Sperm production ✓
- Estrogen → Females →
  - Menstrual Cycle
  - Ovulation {Related to development of egg cell ✓}
- Oxytocin {Birth hormone}
- Prolactin {Release of milk from mammary gland}.





# Reproductive Health



[STD's]

## • Sexually Transmitted Diseases :

Diseases which can spread from one person to another person during the time of sexual intercourse are known as STD's

### → Bacterial STD's

- \* Syphilis
- \* Gonorrhea

### → Viral STD's

- \* HIV-AIDS ✓
- \* Genital Warts

# HIV - AIDS

- Human Immunodeficiency Virus
- Acquired Immuno Deficiency Syndrome

AIDS → Viral Disease

→ Chronic Disease { Lifelong disease }  
→ Virus weaken our Immune System [ Kill our white blood cell ]





Transmit



- ① Sexually transmit
- ② Pregnancy / Breast feeding
- ③ By Sharing of infected needles / scissor / blades



## CONTRACEPTION

Methods or techniques adopted to prevent pregnancy as a consequence of sexual intercourse

Why contraceptive methods should be adopted ?

- ↳ To prevent unwanted pregnancy
- ↳ To prevent Sexually transmitted diseases
- ↳ To maintain family size / gap b/w two children





## Types of Contraceptive Method



- ✓ ① Mechanical / Barrier Method
- ② Chemical Method
- ③ IUCD
- ④ Surgical Method



# Mechanical /Barrier Method



1. Physical devices like condoms (for males & females) and diaphragms or cervical caps (for females) are examples of this method.

→ Cervix

2. These work by preventing the meeting of sperm and ovum.

3. Barrier methods helps to prevent pregnancy and Sexually Transmitted Diseases by preventing the intermixing of body fluids.







# Sperm cell in presence of spermicides\*



Sperm\*

**Mai nahi bachega idhar! mar jayega!**





## Chemical Method

Chemicals



1. These include oral pills and vaginal pills

2. These pills contain **certain hormones** which works in the following ways :

- prevent the production of ovum
- kill sperm cells
- prevent implantation

Prevent pregnancy

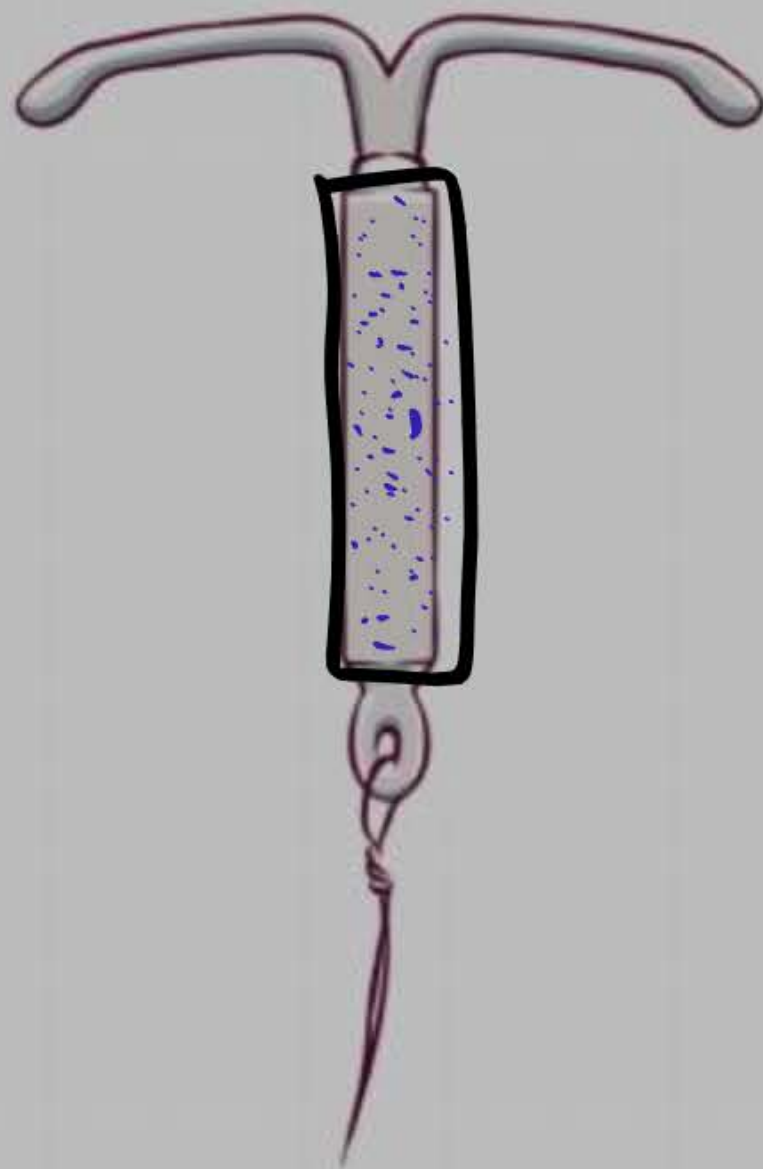
3. These methods have certain side-effects

4. It cannot prevent transmission of STDs

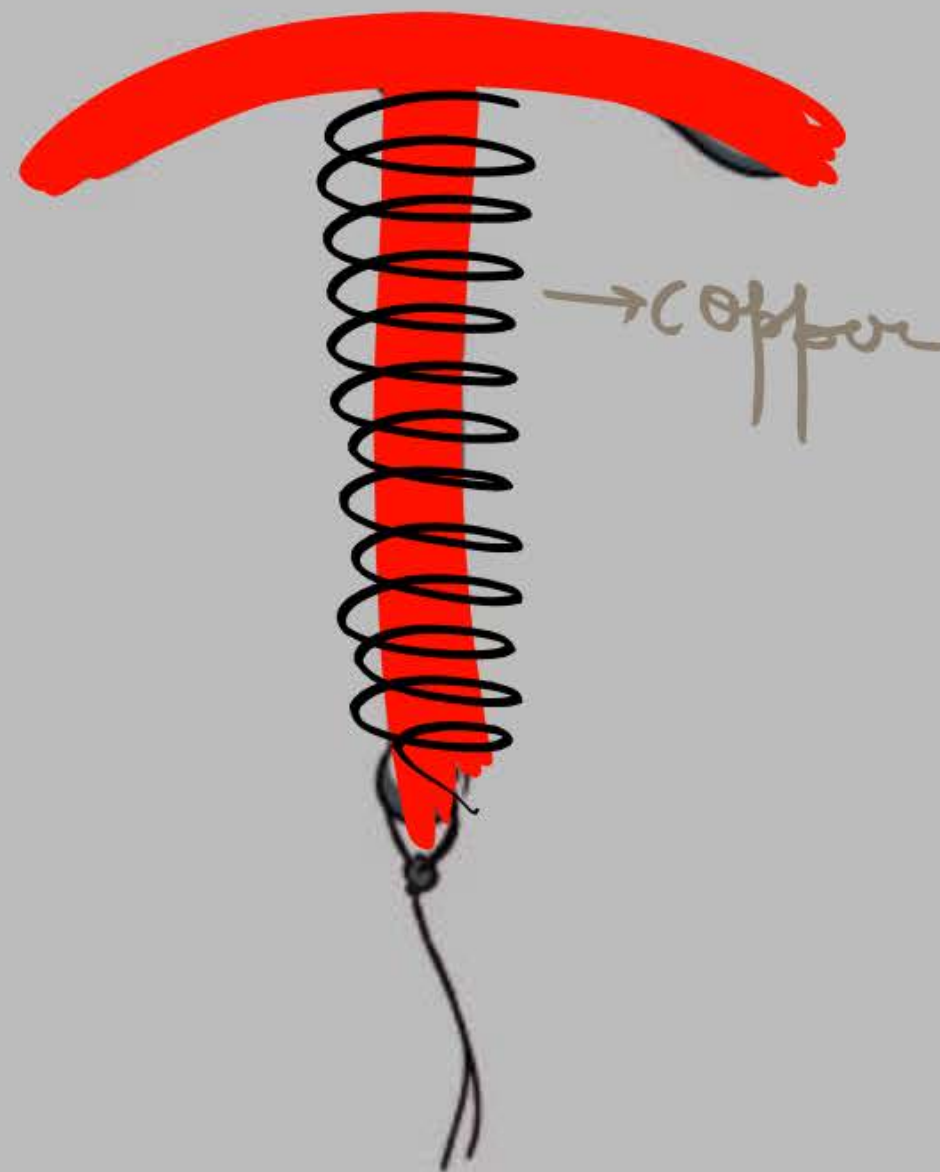




# Intra uterine contraceptive Devices (IUCDs)



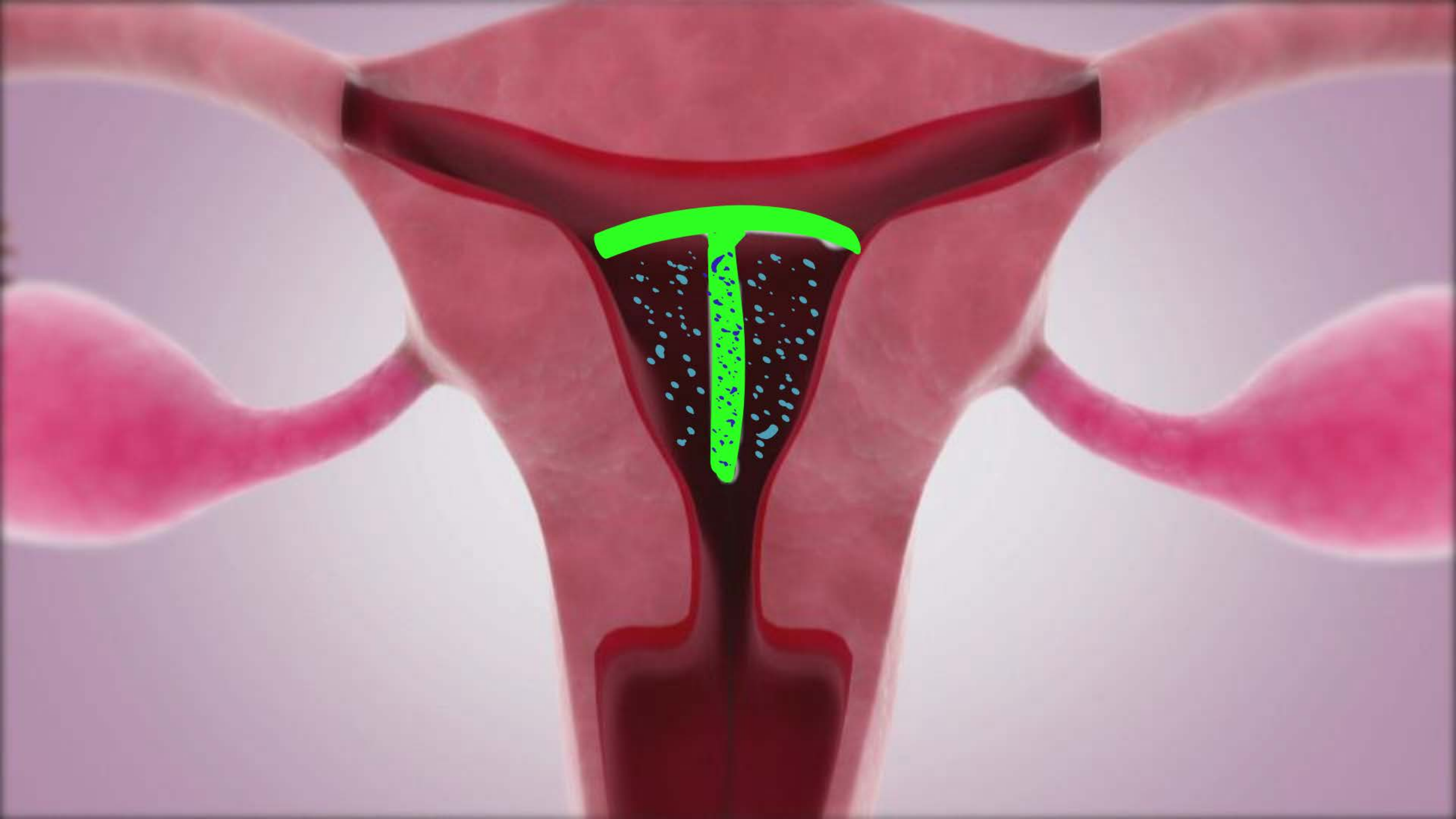
Hormonal IUD



Copper IUD

Cu-T

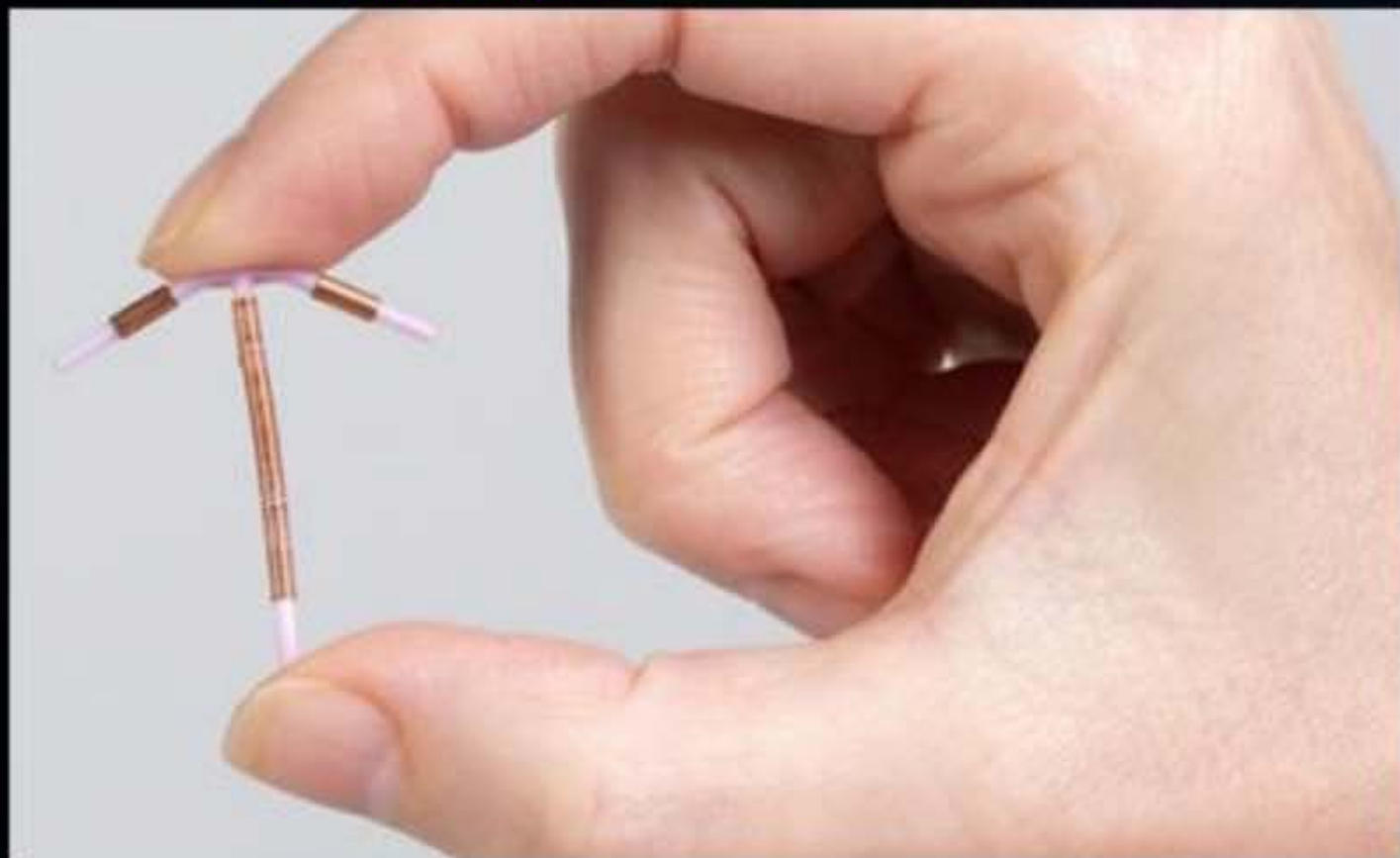






# Intra uterine contraceptive Devices (IUCDs)

Inside uterus



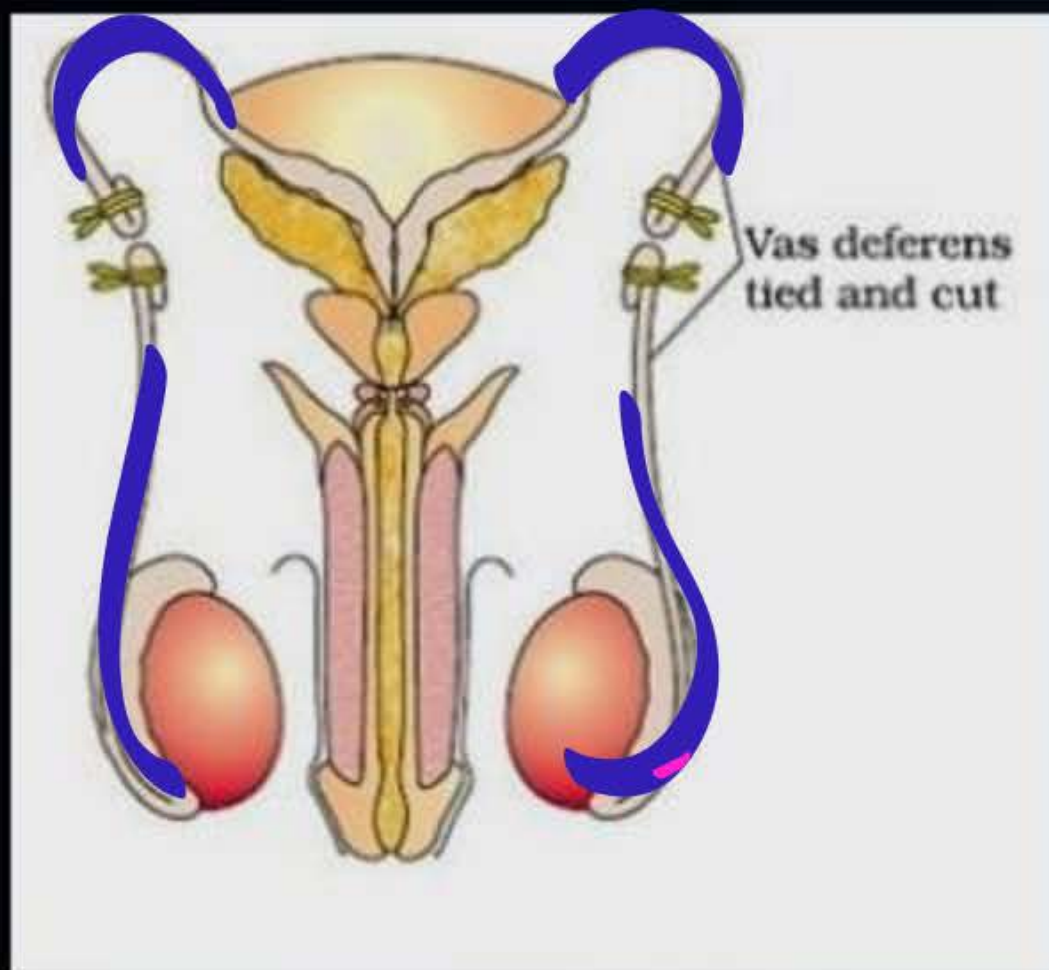
- **Copper IUD** – Releases small amounts of copper in the uterus which works as follows:
  1. Prevents sperms from reaching the fallopian tube
  2. Prevents implantation
  3. Spermicidal
- **Hormonal IUD** – Releases hormones in the body which prevents the formulation of eggs.



# Surgical Methods

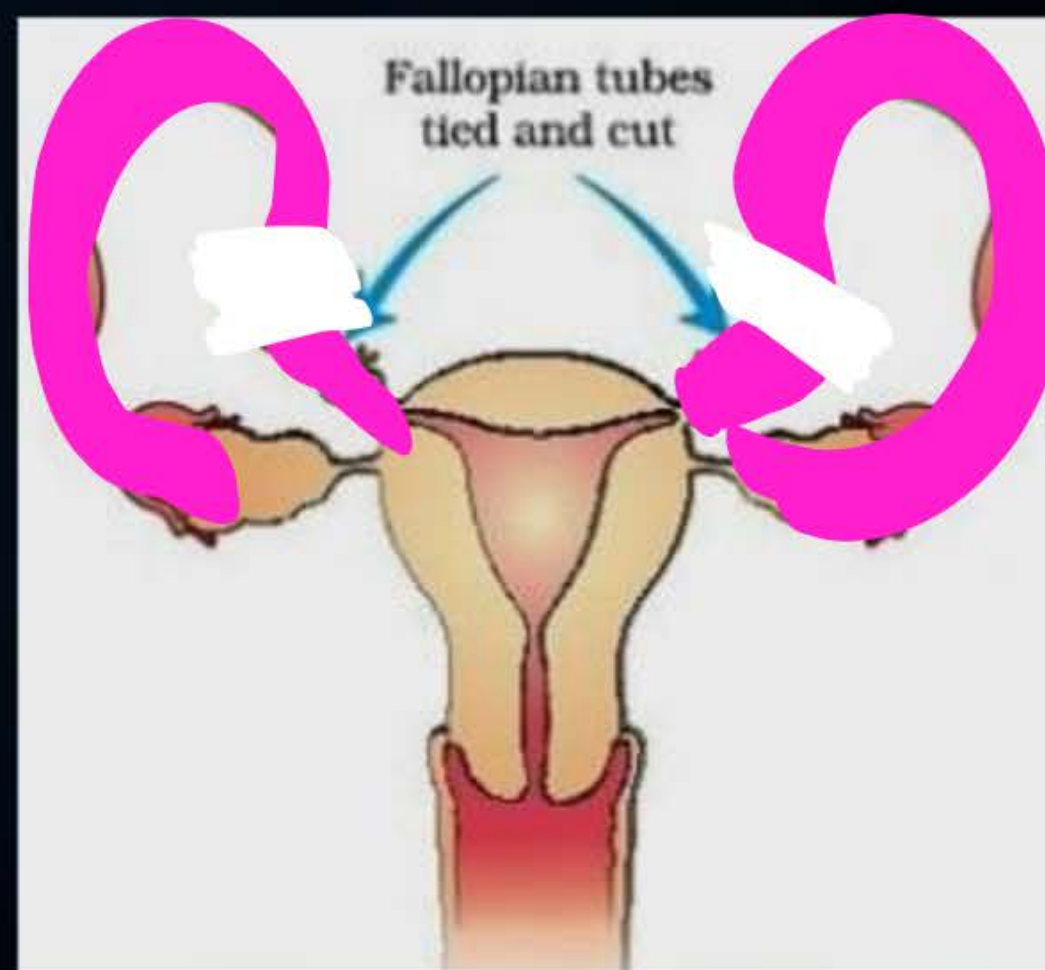
## Vasectomy [Males]

↳ Vas deferens is cut & tied



## Tubectomy [Females]

↳ Fallopian tube/Oviduct is cut & tied





Chemical , Surgical and IUD's (Cu-T) contraceptive methods do not prevent Sexually transmitted diseases\*\*







# Population



Sex Ratio

[Male : Female]

Size of a population depends upon: —  $\left\{ \begin{array}{l} \rightarrow \text{Birth Rate} \checkmark \\ \rightarrow \text{Death Rate} \checkmark \end{array} \right.$



## Female Foeticide

**ILLEGAL**

Female foeticide is the process of finding out the sex of the foetus and undergoing abortion if it is a girl.

Female Foeticide



**SAVE THE GIRL CHILD**







# Medical Termination of Pregnancy (MTP)



MTP Act 1971

---

↳ upto 20 weeks abortion



## Common Doubts



- IVF → In Vitro-fertilisation → Test tube baby
- ✓✓ • Concept of twins
- ✓✓ • What happens to sperms cells after vasectomy
- Does menstruation occurs during use Cu-T



Which of the following is cut and tied in vasectomy ?

↓  
Males

- A Testis
- B Vas deferens
- C Fallopian tube
- D Uterus

Copper T is inserted in

- ☐ A Oviduct
- ☐ B Ovary
- ☐ C Fallopian tube
- ☒ D Uterus



Condom is a type of \_\_\_\_\_ contraceptive method

- ☐ A Chemical ✗
- ☒ B Barrier
- ☐ C IUD ✗
- ☐ D Surgical ✗

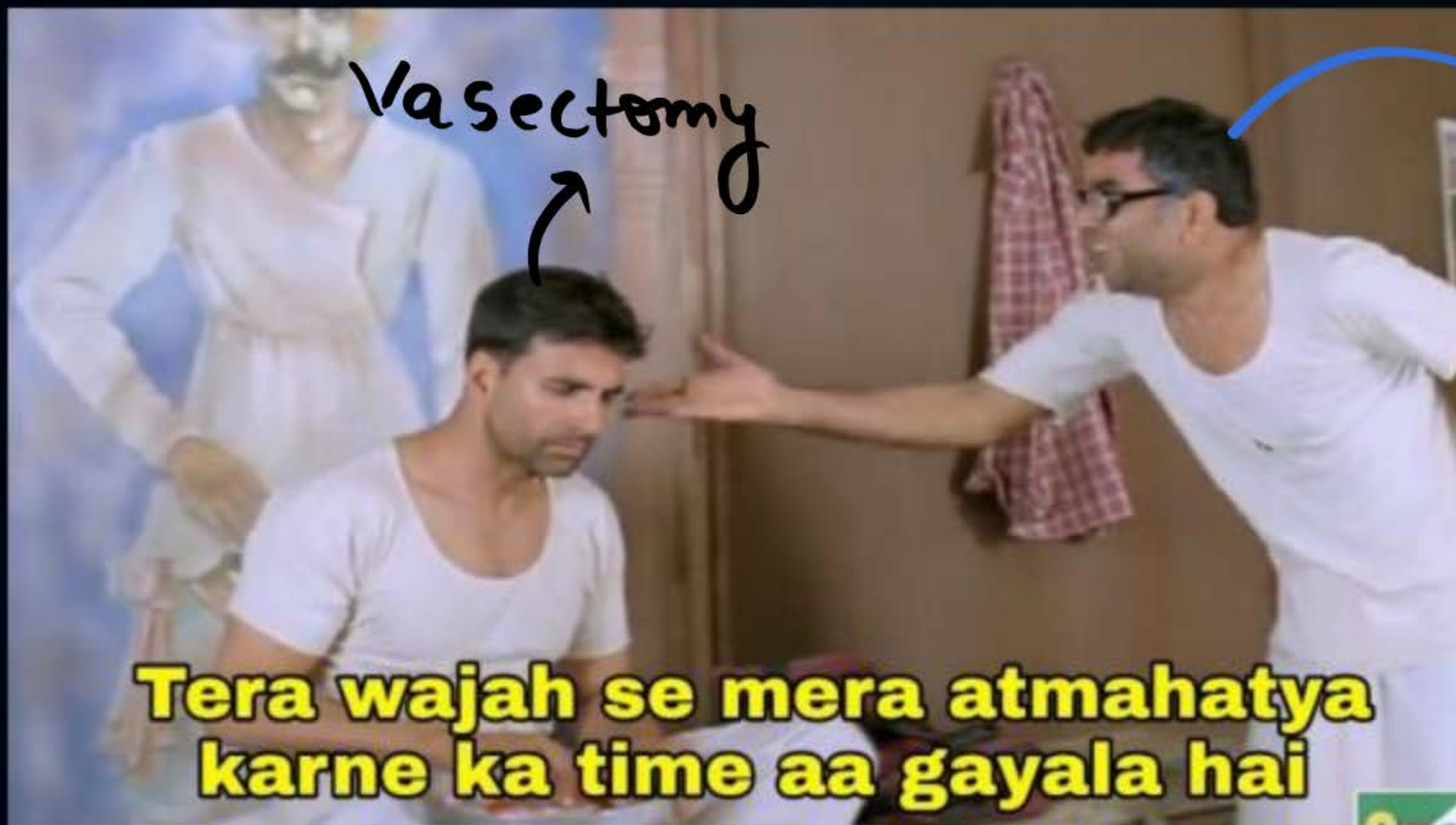
Which of the following will help to prevent both STD and pregnancy ?

- ☒ A Condoms
- ☐ B Cu T
- ☐ C IUD
- ☐ D Vasectomy





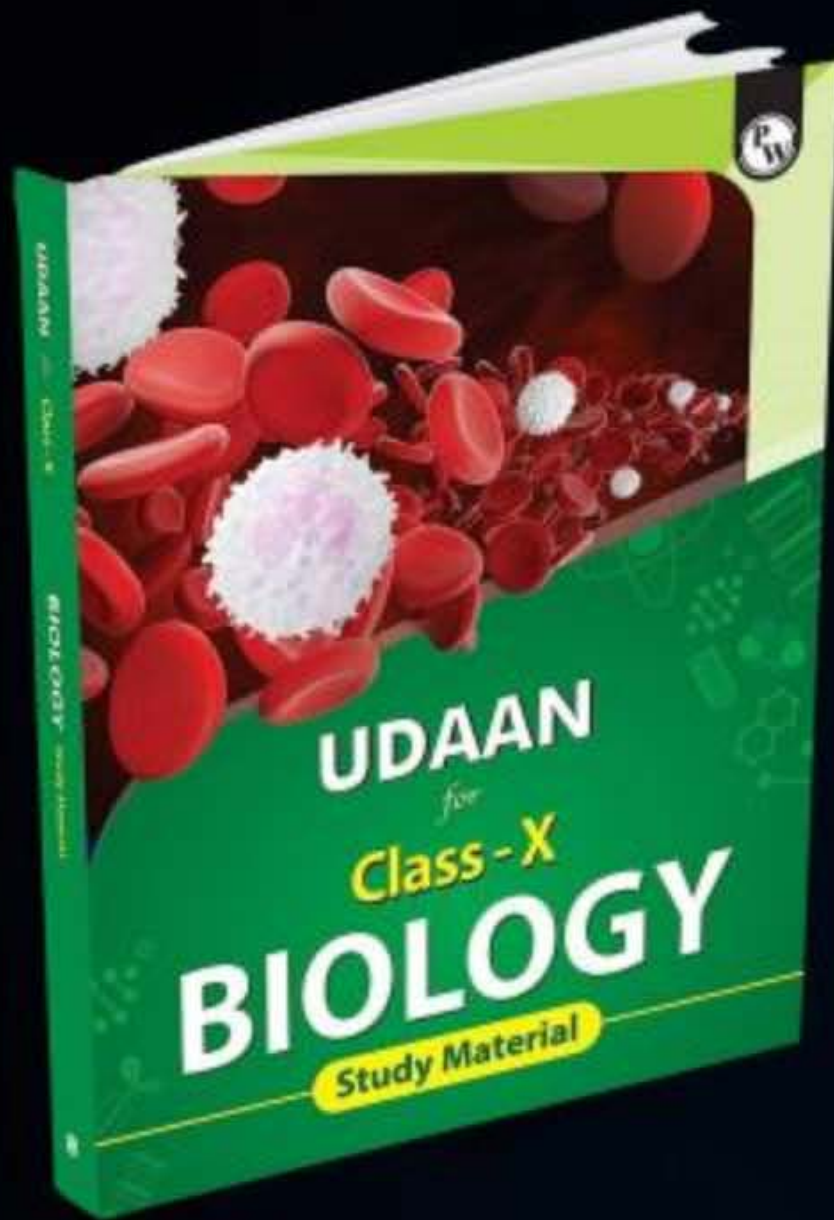
## Joke/Meme of the Day



Vasectomy

Sperm cell

**Tera wajah se mera atmahatya  
karne ka time aa gayala hai**



# Homework



FROM PW MODULE  
( Udaan - CLASS 10 )

PAGE : 136 — Q-3 , Q-4





THANK  
YOU

