

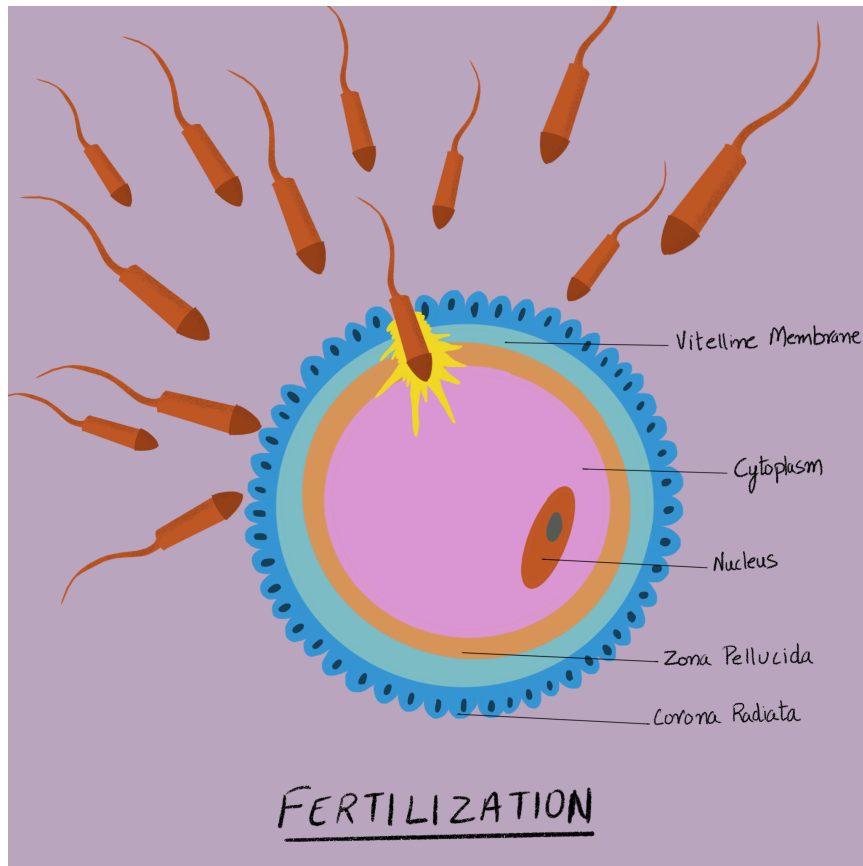
# **CONCEPTION**

## **MEANING OF CONCEPTION**

Conception results when fertilization of the ovum by the sperm takes place. The result i.e the egg then gets implanted in the uterus and so, the female is said to have conceived or that conception has taken place. Such a female is called a pregnant female.

## **PROCESS OF CONCEPTION**

- An ovum is released by the female ovaries every month into the fallopian tube by the process called ovulation, this process commonly occurs 14 days before the onset of the next period.
- For example- in a 28 day period cycle ovulation occurs around the 14 day.
- Males have millions of sperms present in their semen, which is released during sex and the sperms enter through the vagina.
- The sperms swim upwards towards the ovum and only 1 sperm out of the million sperms fertilises the ovum, this process needs to take place within 72 hours after having sex otherwise sperms lose their ability to fertilise.
- The ovum and sperm need to be present in the fallopian tube at the same time for conception to take place.
- 1 ovum is released every month in middle of your period cycle and hence, having sex during the fertile phase leads to successful conception.
- After fertilization the egg gets transported to the uterus and starts to grow, which means the female is pregnant.



## APPROPRIATE AGE TO CONCEIVE

Females start to menstruate around the age of 12 years which marks the beginning of their journey to adulthood but the body of a female needs to be strong and healthy to carry a baby .

Before the age of 20 years females are physically and mentally not prepared to bear a child. The age between 20 to 30 years is ideal to conceive your first child , the female body is ready to carry a baby and provide all nutrients to the foetus along with keeping the mother safe as well as healthy.

After the age of 30 years, as the age increases, chances of complications related to conception, pregnancy and delivery increase.

## INFERTILITY

Infertility implies failure of a couple to conceive even after 1 year of regular unprotected sex.

### CAUSES IN FEMALES

1. Painful or difficult sex- this can be caused due to both male or female partner.
  - Females- infections like vaginitis or other painful lesions of the vagina
  - spasm of the vagina i.e a condition called vaginismus.
  - some obstruction either by birth, injury or surgical interventions.
  - dry vagina in menopausal women.

- rigid or imperforate hymen.
- lack of lubrication due to decreased arousal.

Males -abnormalities in the penis which can be by birth.

- premature ejaculation.
- ignorance of correct technique.

2. Uterine fibroids
3. Defects in the structure of the uterus can be present in some females by birth.
4. Infections of the Fallopian tubes.
5. Sexually transmitted infections like gonorrhoea, syphilis, chlamydia etc which can cause inflammation of the internal sexual organs.
6. Age over 35 years.
7. Smoking.
8. Hypothyroidism.
9. Diabetes and tuberculosis could also lead to infertility.

## **IMPORTANCE OF GETTING MALE PARTNER CHECKED**

Infertility can be caused due to problems with either the male or female partner and so, getting the male partner checked is as important as getting the female tested.

More often than not there are some semen defects or hormonal abnormalities in the male partner which can only be detected and corrected by proper testing of the male, if this step is missed then proper diagnosis of the infertility will be difficult.

## **CAUSES OF INFERTILITY IN MALES**

1. Disorders of sperm formation
  - Tight scrotal support.
  - Varicocele.
  - High scrotal temperature, eg: men working in blast furnaces.
  - Trauma or injury to the genital organs.
  - Infections like gonorrhoea which lead to inflammation.
2. Drugs users, smokers, excessive alcohol consumption.
3. Diabetes, hypothyroidism and tuberculosis.
4. Impotence.
5. Physical birth defects of the penis.
6. Premature ejaculation.

The stigma around infertility tests for males should be reduced as conception takes place with the help of both the partners and hence the burden of infertility has to be carried by the couple together.

## **SAFE SEX AND UNSAFE SEX**

Sex is said to be safe when it is performed using methods that help reduce the risk of sexually transmitted infections.

It is usually called safer sex as no technique provides 100% protection from STI's

Unsafe sex results when no protection has been taken to avoid STI's .

- Use contraception unless you are planning a pregnancy.
- While having sex with multiple partners use a condom, to avoid pregnancy as well as sexually transmitted infections like HIV-AIDS.
- STI's can spread through body fluids and hence, while having oral or anal sex use dental dams/ female condoms for disease protection.
- Physical contraceptive methods like condoms are the only methods to prevent STI's , other contraceptive methods like IUCD's and ORAL PILLS only prevent pregnancy but not infectious diseases.

## **SOME EXAMPLES OF SEXUALLY TRANSMITTED INFECTIONS :**

1. **SYPHILIS:** STI which spreads through contact with broken skin/ intact mucous membranes. It can spread from male to female vis-à-vis through unprotected sexual contact.  
To identify the primary lesion - it is a big pimple like lesion which breaks and forms a shallow ulcer, over the skin of the genital organs i.e vulva, vagina, cervix in females and penis in males.  
If left untreated it can cause further complications and spread to sexual partners of the affected individual.
2. **Chlamydia:** bacterial infection which spreads through sexual contact and causes multiple complaints in females like increased frequency of urination, vaginal discharge, burning urination, and inflammation of vagina/ cervix.  
If not treated can lead to further complications and damage to the sexual organs. It can also cause infertility.
3. **Gonorrhoea:** It is a bacterial infection where the chances of spread are more from male to female partner rather the other way round. It can spread through sexual contact as well as through oral sex.
4. **Trichomniasis:** An infection which can spread through sexual contact as well as bad hygiene and causes complaints in females .

5. HIV- AIDS: It is a life threatening STI caused by a virus and can be spread through either male or female by the infected partner.

The disease takes a long time to show clinical presentation but the individual can still be infectious and hence it is very important to use barrier contraceptives to protect against such diseases.

- Condoms are the best barrier contraceptives and their action can be enhanced by using in conjunction with spermicides.
- It is essential to cover the external genitalia so as to avoid any skin contact while having sex to prevent STI's and practice safe sex successfully.
- Getting your partners tested for STI's before having sex is also a safe sexual practice .

#### **References :**

Conception and it's process- D.C Dutta's textbook of obstetrics.

Infertility, safe and unsafe sex, age of conception- Shaw's textbook of gynaecology.

Fertilization illustration: by Vasundhara Kapoor.