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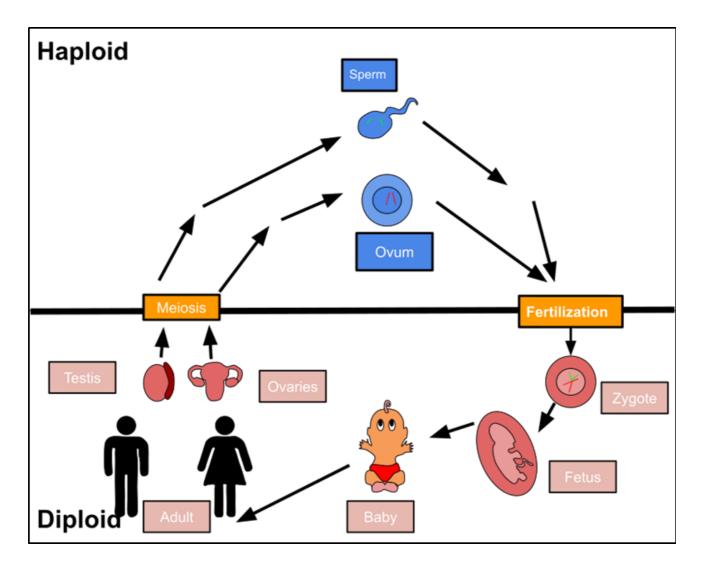
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Human Reproductive System: Meaning of Reproduction, Types of Reproduction

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Meaning of Reproduction

- Human reproduction can be defined as any form of asexual reproduction resulting in human fertilization.
- It is a biological process of producing a new individual or an offspring identical to the parents.
- It is a vital life process and one of the fundamental characteristics of living things.



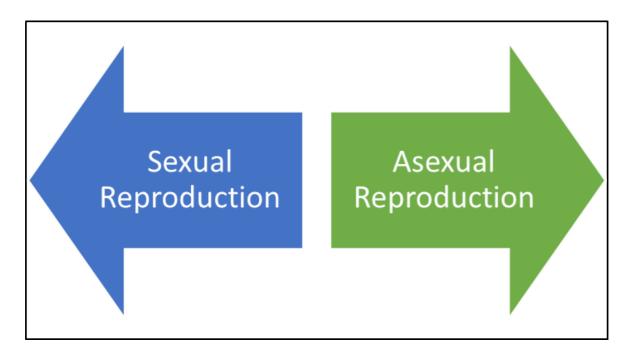
Haploid

- A cell or organism has just a single copy of each chromosome.
- It is also known as monoploid.

Diploid

It is a cell or organism that has paired or two sets of chromosomes one for each parent.

Types of Reproduction



Sexual Reproduction

- The production of new living organisms by combining genetic information from two individuals of different types.
- It is a complex process.
- · Process involves:
 - Formation and transfer of gametes
 - Followed by fertilization
 - Formation of the zygote
 - o Embryogenesis

Asexual Reproduction

- It is a type of reproduction, which does not involve the fusion of gametes or change in the number of chromosomes.
- It involves only one parent.

• The new offspring produced is like the parent.

Human Reproductive System

- There is fusion of male and female gametes being produced in the reproductive system.
- Both the male and the female reproductive system are different in terms of structure and function.

Male Reproductive System

- Within the male reproductive system, the male gametes i.e. sperms are produced.
- Sperms have a head, middle peace, and a tail being small and unicellular.

Testicles (Testes)

- They are responsible for the production of sperms and the male hormone testosterone.
- These are a pair of oval-shaped organs masked in a pouch called the scrotum.

Scrotum

- It performs an important function of maintaining temperature required for producing sperm and is a sac-like organ hanging below the penis.
- It contains testes or testicles.

Vas Deferens

- These are the muscular tubes where the sperms mature and pass to urethra.
- Epididymis is a tube that stores the sperms produced in the testes.

Accessory Glands

- Seminal vesicles, prostate gland, and Cowper's gland are the three glands included.
- A fluid called semen is formed when the secretions from the three glands mix.
- Function of Semen:
 - It nourishes the sperm.
 - o Increases the volume.
 - Helps in lubrication.

Penis

- It is cylindrical in shape.
- It serves as both reproductive organ and an excretory organ.

Female Reproductive System

Ovaries or a Pair of Ovaries

- They produce and store ovum.
- A female hormone called estrogen is also produced.

Fallopian Tubes (Oviducts)

- These act as the site of fertilization process.
- They connect ovaries with the uterus.

Uterus

It acts as the site of development for the embryo.

Vagina

- It connects the cervix to the external female body parts.
- During delivery, it acts as a fetus.

FAQs

Q 1. What is the simple difference between Haploid and Diploid?

Answer:

- Haploid can be defined as a cell or organism has just a single copy of each chromosome.
- Diploid can be defined as a cell or organism that has paired or two sets of chromosomes one for each parent.
- Q 2. What are the most important functions of semen?

Answer:

There are three important functions of semen:

- i) It nourishes the sperm.
- ii) Increases the volume.
- iii) Helps in lubrication.
- Q 3. What are the male and female reproductive organs?

Answer:

Male reproductive organ includes Testicles (testes), Scrotum, Vas deferens, Accessory glands, and Penis.

Female reproductive organs are a pair of ovaries, Fallopian tubes (Oviducts), Uterus and Vagina.