

THEME: THE HUMAN BODY

TOPIC: THE REPRODUCTIVE SYSTEM

Growth and development in human beings

What is growth?

- **Growth** is the increase in size of an organism.

Signs of growth

- Increase in weight/mass
- Increase in height
- Appearance of masculine and feminine features.

What is development?

- This is the increase in maturity of an organism.

Puberty and adolescence

What is adolescence?

- This is the period of growth from childhood to adulthood.
- This is the period during when a child grows into an adult.

Who is an adolescent?

- This is a person undergoing adolescence.
- Childhood stage from 0- 12 years
- Adolescence stage from 13- 18 years
- Adulthood stage from 18 years and above.

What is puberty?

- This is a period in which reproductive organs become sexually mature.
- This is a period when a person experiences sexual maturation.

Changes in adolescents at puberty are called **sex characteristics**

There are two types of body changes/sex characteristics namely;

- Primary sex characteristics
- Secondary sex characteristics

Primary sex characteristics/changes

- These are changes that affect primary sex organs.
- They are directly responsible for reproduction.

Examples of primary sex characteristics/changes

In boys	In girls
<ul style="list-style-type: none">• Enlargement of penis and testes• Production of sperms/semen• Experiencing of wet dreams	<ul style="list-style-type: none">• Menstruation• Ovulation• Thickening of the uterus

Primary sex characteristic in both girls and boys

- Production of mature gametes
- Enlargement of reproductive organs.

Secondary sex characteristics

- These are changes which give a person a male or female appearance.
- They are not directly responsible for reproduction.
- They distinguish a girl from a woman and a boy from a man.

Examples of secondary sex characteristics

In boys	In girls
<ul style="list-style-type: none">• Growth of beards• Deepening of voice• The body becomes muscular• Broadening of the chest	<ul style="list-style-type: none">• Development of breasts• Soft and attractive voice• Smooth and nice looking face• Widening of hips.

Secondary sex characteristics in both girls and boys

- Sweat glands become active
- Appearance of pimples on the face
- Growth of pubic hair
- Growth of armpit hair

- Body odour

Psychological/emotional changes

- These are changes that take place in the mind.
- They are the same in both girls and boys.

Examples of psychological/emotional changes in girls and boys.

- They are interested in the opposite sex
- They become moody/ mood swings
- They have increased demands
- They reject rules/They become disobedient.
- They become self conscious.
- They develop temper/become angry quickly
- They need freedom or independence

Social changes

- These are changes in human interactions and relationships.

Examples of social changes in adolescents

- They form peer groups
- They make friendship/relationship outside the family

Problems faced by the adolescents/effects of adolescence changes.

- Early pregnancy in girls
- Imprisonment
- Contraction of HIV/AIDS
- Sexually Transmitted Diseases
- Rejection in the society
- Committing crimes
- School drop out
- Conflicts
- Miscarriage/abortion

Reproduction

- **Reproduction** is the process of giving rise to new offsprings.
- This is the ability of organisms to multiply and increase in number
- This is the process by which organisms produce their own kind

Importance of reproduction

- It helps organisms to remain in existence
- It helps organisms to multiply and increase in number
- It prevents extinction of species of organisms

Type of reproduction

- Asexual reproduction
- Sexual reproduction

Asexual reproduction

- This doesn't involve fusion of gametes.

Name examples of asexual reproduction

- Cell division/Binary fission
- Budding

Sexual reproduction

- This involves fusion of gametes.

What is a gamete?

- This is a reproductive cell.

Examples of gametes

- Sperms
- Ova/eggs

What are gonads?

- These are glands that produce gametes.

Examples of gonads

- Testes
- Ovaries

The male gametes in human beings are called **sperms**

The male gonads in human beings are called **testes**

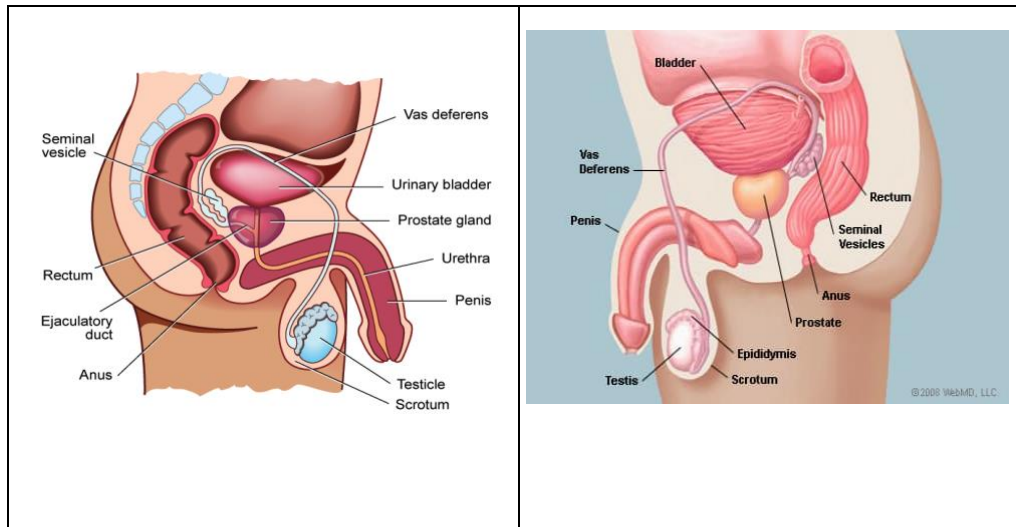
The female gametes in human beings are called **ova**.

The female gonads in human beings are called **ovaries**

Reproductive system

- This is a group of body organs involved in reproduction.

Parts of the male reproductive system



Functions of each part

1. Scrotum

- It protects the testes from harm.
- It regulates temperature around the testes

2. Testes

- They produce sperms
- They produce a male hormone called **testosterone**
- ❖ **Testosterone** controls male secondary sex characteristics.
- It helps to improve sex drive

3. Penis

- It deposits sperms into the vagina during sexual internal.
- It is used to pass out urine.

4. Epididymis

- It stores sperms

- It is where sperms nature from.
- It carries sperms to the sperm ducts

5. Sperm duct (vas deferens)

- Transports/delivers sperms to the urethra

6. Urethra

- It is a passage of urine and sperms

7. Prostate gland

- It controls/regulates urine flow
- It produce seminal fluids

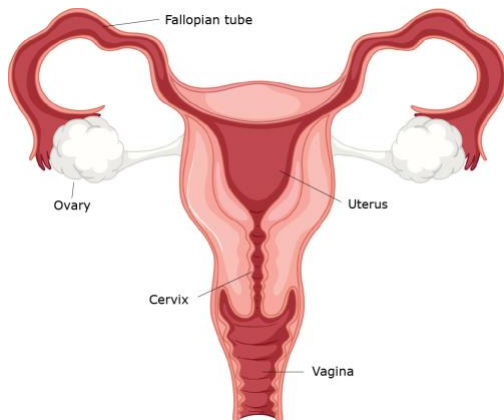
8. Seminal vesicle

- It produces a fluid that forms semen.

9. Foreskin

- It covers and protects the head of the penis.

Parts of the female reproductive system



Functions of each part

1. Vagina

- It is where sperms are deposited/ It receives sperms during mating.
- It acts as a birth canal/ It is a passage of the baby during birth.
- It receives a penis during sexual intercourse

2. Cervix

- It separates the vagina from the uterus
- It prevents the foetus from coming out before it is time.
- It closes the uterus during pregnancy

3. Uterus/womb

- It is where implantation occurs
- It is where the embryo develops until birth.

4. Oviduct/fallopian tube

- It is where fertilization takes place
- It transports fertilized eggs (ova) from the ovary to the uterus.

5. Ovaries

- Produce ova (eggs)
- Produce female hormones e.g. estrogen, progesterone

Importance of estrogen hormone

- Controls female secondary sex characteristics.
- Regulates menstrual cycle
- Help in development of breasts.

Copulation

- This is the act of having sexual intercourse.

Ovulation

- This is the release of a mature egg/ovum from the ovary.

Menstruation

- This is the monthly discharge of blood and tissues from the uterus.
- It is caused by rupture of the uterus walls
- The first menstrual period called **menarche** starts in girls between **9-16**
- The last menstrual period called **menopause** and ends at **45** years

Examples of menstrual hygiene products

- Sanitary pads
- Menstrual cups
- Tampons

Fertilization

- This is the fusion of a male and female gametes to form a zygote.

Types of fertilization

- Internal fertilization
- External fertilization.

Humans undergo **internal fertilization**.

Fertilization in humans takes place in the **fallopian tube/oviduct**

During sexual intercourse, the penis releases sperms into the vagina.

The sperms swim in semen to the oviducts/fallopian tubes

Implantation

- This is the attachment of the zygote to the walls of the uterus.

Pregnancy

- This is the period in which the embryo is developing.

Gestation period

- This is the period from fertilization to birth.
- ❖ The pregnancy/gestation period in humans is **9 months**.

Conception

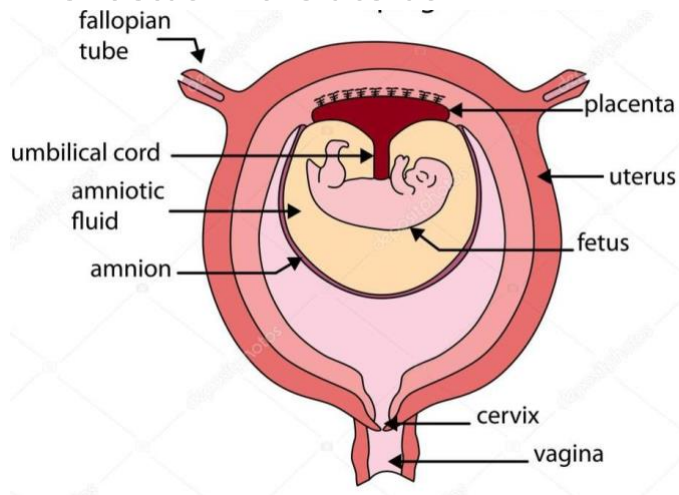
- This is the process of becoming pregnant.
- This is the successful fusion of a sperm and an ovum.

Signs of pregnancy

- Breasts grow bigger/ Enlargement of breasts
- Menstruation stops

- The abdomen grows bigger/ enlargement of the abdomen
- Morning sickness
- Frequent urination
- Vomiting/nausea
- Secretion of milk from breasts
- Food cravings

The foetus in the uterus



Functions of each part

1. Placenta

- It provides nutrients and oxygen to the foetus.
- It produces hormones for the foetus
- It stores waste products from the foetus

Problems that may occur during pregnancy

- Vomiting
- Morning sickness
- Constipation
- Heartburn

- Lower back pain/backache
- Anaemia/lack of enough blood
- Swelling of body parts e.g. hands, feet and face
- ❖ **Teenage pregnancy** is pregnancy in adolescent girls.
- ❖ **A young parent** is an adolescent who produces a baby under the age of 18 years.

Causes of teenage pregnancy

- Sexual violence
- School drop out
- Forced early marriage I'm b

Effects/dangers of early marriage

- Contraction of STDS
- Damage of sexual organs
- Dismissal from school

How to prevent teenage pregnancy

- Abstain from sex
- Get advice, counseling and guidance
- Avoid moving alone at night
- Reject gifts for sex.
- Avoid joining bad peer groups
- Menstruation period stops
- Breasts grow bigger/enlarge
- The stomach/abdomen grows bigger/enlarges
- Frequent urination
- Morning sickness
- Vomiting/nausea
- Secretion of milk from breasts

Requirements of a pregnant woman/mother

- Balanced diet

- Vaccination against tetanus using T.T vaccine
- Antenatal services/care
- Regular physical exercises
- Good hygiene