

Chapter 18: The reproductive systems

Female reproductive system

1. Identify whether the following parts of the female genitalia apply to the external genitalia or the internal genitalia.

Statements	Category A	Category B
Vagina	External genitalia	Internal genitalia
Labia minora	External genitalia	Internal genitalia
Clitoris	External genitalia	Internal genitalia
Uterus	External genitalia	Internal genitalia
Vestibular glands	External genitalia	Internal genitalia
Cervix	External genitalia	Internal genitalia
Ovary	External genitalia	Internal genitalia
Hymen	External genitalia	Internal genitalia

2. Which tissue forms the middle layer of the wall of the uterine tubes?
- a) Delicate areolar tissue to protect the ovum
 - b) Fimbriae, to waft the ovum towards the uterus
 - c) Smooth muscle, which contracts rhythmically to push the ovum along
 - d) Ciliated epithelium, for propulsion of the ovum

3. What type of tissue lines the uterine tubes?
- a) Delicate areolar tissue to protect the ovum
 - b) Fimbriae, to waft the ovum towards the uterus
 - c) Smooth muscle, which contracts rhythmically to push the ovum along
 - d) Ciliated epithelium, for propulsion of the ovum

4. Which of the following is not a function of the uterus?
- a) Nourishment of the ovum
 - b) Expulsion of the baby at term
 - c) Production of pregnancy-related hormones
 - d) Attachment of the placenta

5. Which of the following is true of the uterine tubes?
- a) They are covered by the round ligament.
 - b) They make direct contact with the ovaries at their lateral ends.
 - c) They are supplied with blood by the pudendal arteries.
 - d) Fertilisation normally takes place here.

6. Identify whether the following descriptions apply to the broad ligament or the round ligament.

Statements	Category A	Category B
One lies on each side of the uterus	Broad ligament	Round ligament
Lies like a blanket over the uterine tubes	Broad ligament	Round ligament
Formed from peritoneum	Broad ligament	Round ligament
Passes through the inguinal canal	Broad ligament	Round ligament
Covers the fundus of the uterus	Broad ligament	Round ligament
Encloses the blood vessels supplying the uterus	Broad ligament	Round ligament

7. Match the following terms related to the ovary to their corresponding description.

Terms:

- Liquor folliculi
- Corpus albicans
- Corpus luteum
- Medulla
- Primordial follicle
- Germinal epithelium
- Ovarian ligament
- Cortex
- Mesovarium

Descriptions:

- The fluid bathing the ovum before ovulation
- Secretes oestrogen and progesterone
- Outer covering of ovary
- The fibrosed corpus luteum
- Fastens the ovary to the uterus
- Central portion of ovary
- Outer layer of ovary
- Band of tissue holding ovary to the broad ligament
- Immature follicle

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8. Terms related to the hormones of reproduction are hidden under the tiles and so is their corresponding function. Find the pairs of hormones with matching functions.

Terms:

hCG

Oestrogen

Progesterone

Oestrogen and progesterone

Oxytocin

FSH

LH

LHRH

Descriptions:

Released by fertilised ovum

Stimulates development of uterine lining

The main placental hormone

Suppress pituitary activity

Stimulates lactation

Stimulates development of the ovum

Triggers ovulation

Stimulates release of LH and FSH

9. Anterior pituitary activity is suppressed in the second half of the cycle because:

- _____.
- a) Oestrogen and progesterone levels are low
 - b) Oestrogen levels are high but progesterone levels are low
 - c) Oestrogen and progesterone levels are high
 - d) Oestrogen levels are low but progesterone levels are high

10. In the first half of the cycle, the uterus is said to be in the: ____.
- a) Menstrual phase
 - b) Secretory phase
 - c) Proliferative phase
 - d) Functional phase

11. The corpus luteum secretes: ____.
- a) Oestrogen and luteinising hormone
 - b) Progesterone and luteinising hormone
 - c) Oestrogen, progesterone and luteinising hormone
 - d) Oestrogen and progesterone

12. Which layer of the endometrium is shed during menstruation?
- a) The proliferative layer
 - b) The basal layer
 - c) The functional layer
 - d) The secretory layer

13. Which hormone is not associated specifically with pregnancy?
- a) Human chorionic gonadotrophin
 - b) Progesterone
 - c) Oxytocin
 - d) Prolactin

14. Match the following events related to events that take place in reproduction to their corresponding description.

Events:

- Puberty
- Menopause
- Menstruation
- Menarche
- Ovulation
- Gestation

Descriptions:

- Expulsion of the ovum from the ovary
- Period of growth and development of a fertilised ovum into a term infant
- The first menstrual period
- The stage at which reproductive maturity is achieved
- The stage of the cycle with loss of the uterine lining
- The stage at which reproductive function is lost

Male reproductive system

15. How many lobules are found in each testis?
- a) 20-30
 - b) 100-150
 - c) 200-300
 - d) 1000-2000

16. What is the function of interstitial cells?
- a) Production of sperm
 - b) Manufacture of nutrients for sperm
 - c) Supporting connective tissue cells
 - d) Synthesis of testosterone

17. Sperm are produced from the: ____.
- a) Interstitial cells
 - b) Germinal epithelium of the seminiferous tubules
 - c) Head of the epididymis
 - d) Spermatic cord

18. Which of the following is not found within the spermatic cord?
- a) Testicular artery
 - b) Germinal epithelium
 - c) Deferent duct
 - d) Smooth muscle

19. Fill in the blanks to complete the paragraph on the spermatozoon.
The spermatozoon is the male sex cell, also called a _____. They are produced in the _____, and stored in the _____. The main part of the cell is the _____, which contains _____. The tail is essential for motility and is powered by multiple _____ found in the _____. Successful spermatogenesis requires temperatures _____ normal body temperature.

20. Identify whether the following statements about the male reproductive organs are true or false.

Statements	Category A	Category B
The seminal vesicles release their secretions into the deferent duct.	True	False
The prostate gland lies on the superior surface of the urinary bladder.	True	False
60% of the volume of sperm ejaculated at orgasm comes from the prostate gland.	True	False
There is very little fat under the skin of the scrotum.	True	False
The deferent duct is about 45 cm long.	True	False
The ejaculatory duct is formed from the union of the deferent duct and the duct from the prostate gland.	True	False
The prostate gland is doughnut shaped and encloses the upper urethra.	True	False
Semen is mildly alkaline.	True	False

Module review

22. Which of the following structures is not classified as part of the female internal genitalia?

- a) Ovaries
- b) Uterine tubes
- c) Vagina
- d) Vulva

23. The average age at which menopause occurs is: ____.
- a) 40 years
 - b) 60 - 65 years
 - c) 45 - 55 years
 - d) 55 years

24. The layer of the uterus from which tissue is sloughed during menstruation is the:

_____.

- a) Endometrium
- b) Myometrium
- c) Parietal peritoneum
- d) Perimetrium

25. The division of the uterine tube which has an outer margin that resembles a fringe is called the: _____.

- a) Isthmus
- b) Ampulla
- c) Infundibulum
- d) Oviduct

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The reproductive systems

Answers:

1. Identify whether the following parts of the female genitalia apply to the external genitalia or the internal genitalia:

Statements	Category A	Category B
Vagina		✓
Labia-minora	✓	
Clitoris	✓	
Uterus		✓
Vestibular-glands	✓	
Cervix		✓
Ovary		✓
Hymen	✓	

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2. Which tissue forms the middle layer of the wall of the uterine tubes?

•Smooth muscle, which contracts rhythmically to push the ovum along

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3. What type of tissue lines the uterine tubes?

•Ciliated epithelium, for propulsion of the ovum

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4. Which of the following is not a function of the uterus?

•Production of pregnancy related hormones

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5. Which of the following is true of the uterine tubes?

•Fertilisation normally takes place here.

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6. Identify whether the following descriptions apply to the broad ligament or the round ligament:

Statements	Category A	Category B
One lies on each side of the uterus		✓
Lies like a blanket over the uterine tubes	✓	
Formed from peritoneum	✓	

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Passes through the inguinal canal		✓
Covers the fundus of the uterus	✓	
Encloses the blood vessels supplying the uterus	✓	

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7. Match the following terms related to the ovary to their corresponding description:

- Liquor folliculi: The fluid bathing the ovum before ovulation
- Corpus albicans: The fibrosed corpus luteum
- Corpus luteum: Secretes oestrogen and progesterone
- Medulla: Central portion of ovary
- Primordial follicle: Immature follicle
- Germinal epithelium: Outer covering of ovary
- Ovarian ligament: Fastens the ovary to the uterus
- Cortex: Outer layer of ovary
- Mesovarium: Band of tissue holding ovary to the broad ligament

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8. Terms related to the hormones of reproduction are hidden under the tiles and so is their corresponding function. Find the pairs of hormones with matching functions:

- hCG: Released by fertilised ovum
- Oestrogen: Stimulates development of uterine lining
- Progesterone: The main placental hormone
- Oestrogen and progesterone: Suppress pituitary activity
- Oxytocin: Stimulates lactation
- FSH: Stimulates development of the ovum
- LH: Triggers ovulation
- LHRH: Stimulates release of LH and FSH

9. Anterior pituitary activity is suppressed in the second half of the cycle because: _____.

- Oestrogen and progesterone levels are high

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10. In the first half of the cycle, the uterus is said to be in the: _____.

- Proliferative phase

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11. The corpus luteum secretes: _____.

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•The functional layer

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13. Which hormone is not associated specifically with pregnancy?

•Progesterone

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14. Match the following events related to events that take place in reproduction to their corresponding description.

- Puberty: The stage at which reproductive maturity is achieved
- Menopause: The stage at which reproductive function is lost
- Menstruation: The stage of the cycle with loss of the uterine lining
- Menarche: The first menstrual period
- Ovulation: Expulsion of the ovum from the ovary
- Gestation: Period of growth and development of a fertilised ovum into a term infant

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15. How many lobules are found in each testis?

•200-300

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16. What is the function of interstitial cells?

•Synthesis of testosterone

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17. Sperm are produced from the: _____.

•Germinal epithelium of the seminiferous tubules

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18. Which of the following is not found within the spermatic cord?

•Germinal epithelium

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19. Fill in the blanks to complete the paragraph on the spermatozoon.

The spermatozoon is the male sex cell, also called a **gamete**. They are produced in the **testis**, and stored in the **epididymis**. The main part of the cell is the **head**, which contains **DNA**. The tail is essential for motility and is powered by multiple **mitochondria** found in the **body**. Successful spermatogenesis requires temperatures **below** normal body temperature.

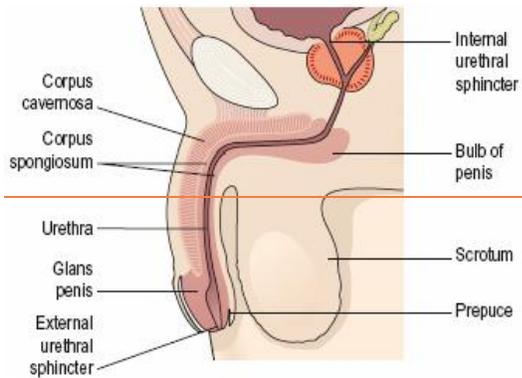
20. Identify whether the following statements about the male reproductive organs are true or false.

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Statements	Category A	Category B
The seminal vesicles release their secretions into the deferent duct.		✓
The prostate gland lies on the superior surface of the urinary bladder.		✓
60% of the volume of sperm ejaculated at orgasm comes from the prostate gland.		✓
There is very little fat under the skin of the scrotum.	✓	
The deferent duct is about 45 cm long.	✓	
The ejaculatory duct is formed from the union of the deferent duct and the duct from the prostate gland.		✓
The prostate gland is doughnut shaped and encloses the upper urethra.	✓	
Semen is mildly alkaline.	✓	

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21. Label the main parts of the penis and its associated structures.



22. Which of the following structures is not classified as part of the female internal genitalia?

- Vulva

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23. The average age at which menopause occurs is: _____.

- 45—55 years

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The reproductive systems

24. The layer of the uterus from which tissue is sloughed during menstruation is the: _____.

- ◆ Endometrium

25. The division of the uterine tube which has an outer margin that resembles a fringe is called the: _____.

- ◆ Infundibulum

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