

## Unit Q: Reproductive System Terminology List

### Male

1. bulbourethral glands
2. copulation
3. ejaculation
4. ejaculatory duct
5. epididymis
6. erection
7. foreskin
8. penis
9. prostate gland
10. semen
11. scrotum
12. seminal vesicles
13. seminiferous tubules
14. sperm (spermatozoa)
15. testes
16. testosterone
17. urethra
18. vas deferens

### Female

19. areola
20. cervix
21. embryo
22. endometrium

23. estrogen
24. fallopian tubes
25. fertilization
26. fetus
27. FSH
28. fundus
29. gamete
30. gestation
31. gonads
32. labia
33. LH
34. mammary glands (breasts)
35. menarche
36. menopause
37. menstrual cycle
38. menstruation
39. myometrium
40. ova (ovum)
41. ovary
42. ovulation
43. perineum
44. progesterone
45. uterus
46. vagina
47. vulva (external genitalia)
48. zygote

### **Disorders and Related Terminology**

- |   |   |  |
|---|---|--|
| <ol style="list-style-type: none"> <li>1. benign prostatic hypertrophy</li> <li>2. cervical cancer</li> <li>3. circumcision</li> <li>4. contraception</li> <li>5. endometriosis</li> <li>6. genital herpes</li> </ol> | <ol style="list-style-type: none"> <li>7. laparoscopy</li> <li>8. mammogram</li> <li>9. mastectomy</li> <li>10. mastitis</li> <li>11. miscarriage (spontaneous abortion)</li> </ol> | <ol style="list-style-type: none"> <li>12. pap smear</li> <li>13. toxic shock syndrome</li> <li>14. tubal ligation</li> <li>15. vasectomy</li> </ol> |
|---|---|--|

Appendix iH17.01A

## Q. Reproductive System

### M1H17.01 Describe the structure of the male reproductive system.

- A. Testes
  - 1. Found in scrotum
  - 2. Size of small egg
  - 3. Made up of 250 lobules, each with coiled seminiferous tubules
- B. Epididymis
  - 1. Collection of tubes above the testes
  - 2. Connect the testes with the vas deferens
- C. Vas Deferens
  - 1. Runs from epididymis to ejaculatory duct
  - 2. Seminal vesicles connect to vas deferens
  - 3. Ejaculatory duct connects vas deferens with urethra
- D. Scrotum – sac of skin that contains testes
- E. Penis
  - 1. Contains erectile tissue
  - 2. End covered by foreskin – loose fitting skin
- F. Prostate Gland
  - 1. Surrounds beginning of urethra
  - 2. Size and shape of chestnut
- G. Bulbourethral glands – located on either side of prostate below prostate

### 1H17.02 Analyze the function of the male reproductive system.

- A. Testes
  - 1. Produce male gametes (spermatozoa)
  - 2. Produce male sex hormone – testosterone
  - 3. Inside, each lobule contains coiled seminiferous tubules where sperm develop
  - 4. In embryo, testes formed in the abdomen and during the last 3 months, migrate into scrotum
- B. Epididymis – where sperm are stored
- C. Vas Deferens – serves as a passageway for sperm from epididymis to ejaculatory duct
- D. Scrotum – serves as container for testes
- E. Penis
  - 1. Contains erectile tissue
  - 2. Organ of copulation
  - 3. Tip of penis covered with foreskin, which is often removed during circumcision
- F. Prostate Gland – secretes a fluid that enhances sperm motility and adds fluid to semen
- G. Bulbourethral glands – add alkaline secretion to semen that helps sperm live longer
- H. Erection and ejaculation
  - 1. Urethra has dual role – excretion of urine and to expel semen
  - 2. Erection caused when erectile tissue fills with blood
  - 3. Ejaculation expels semen
  - 4. Impotence – unable to copulate (hold an erection)
- I. Infertility – lack of conception due to fallopian tube damage, low sperm count, hormone imbalance, and other disorders

### 1H17.03 Describe the structure of the female reproductive system.

- a. Ovaries

1. In lower part of abdominal cavity
2. About the size of an almond
3. Each ovary contains thousands of microscopic sacs
- b. Fallopian tubes
  1. 4" long – not attached to ovaries
  2. Smooth muscle and cilia help propel ova into uterus
- c. Uterus
  1. Hollow, thick-walled, pear-shaped, highly muscular organ
  2. Lies behind urinary bladder and in front of rectum
  3. Fundus – bulging upper part of the uterus
  4. Cervix – narrow neck of uterus that extends into vagina
  5. Uterine wall
    - a. Outside thick muscular layer is myometrium
    - b. Inside mucous lining is endometrium
- d. Vagina – smooth muscle with a mucous membrane lining
- e. External genitalia
  1. Vulva – external organs of reproduction
  2. Labia – folds of skin that surround the entrance to the vagina
  3. Perineum – area between vagina and rectum
- f. Accessory organs
  1. Breasts (mammary glands)
  2. Areola – darkened area that surrounds the nipple

#### 1H17.04

#### Analyze the function of the female reproductive system.

- A. Ovaries
  1. Primary sex organs of the female
  2. Produce ova (female gamete) and manufacture female sex hormones (estrogen and progesterone)
  3. During the reproductive years, a single follicle in the ovary matures every 28 days with an ovum inside
  4. Reproductive ability begins with menarche (first menstrual cycle) during puberty
- B. Ovulation
  1. Mature ovum is released (ovulation) about 2 weeks before menstrual period begins
  2. After ovulation, the ovum travels down the fallopian tube
  3. Fertilization takes place in fallopian tube, usually within two days of ovulation
  4. Following fertilization, the zygote implants in the uterus
  5. Development of follicle controlled by FSH, ovulation caused by LH
- B. Fallopian tubes – smooth muscle and cilia help propel ova into uterus
- C. Menstrual cycle
  1. Occurs every 28 days, divided into 4 stages
  2. Follicle stage – FSH from pituitary → ovary, stimulates follicle with ovum to mature → releases estrogen and prepares uterine lining, lasts 10 days
  3. Ovulation stage – Pituitary stops FSH and releases LH, 14<sup>th</sup> day – follicle ruptures and mature ovum released
  4. Corpus luteum stage – Corpus luteum secretes progesterone. If ovum fertilized, corpus luteum continues secrete progesterone, which prevents further ovulation and maintains uterine lining, lasts 14 days

5. Menstruation stage – If no embryo, corpus luteum dissolves → progesterone ↓ and uterine lining breaks down and is discharged, 3-6 days
  6. Menopause
    - a. When monthly menstrual cycle comes to an end
    - b. Approximately age 50
    - c. Symptoms include hot flashes, dizziness, headaches and emotional changes
- D. Conception and pregnancy
1. Gametes are produced by gonads
    - a. Female gonad = ovary
    - b. Female gamete = ovum (ova)
    - c. Male gonad = testes
    - d. Male gamete = sperm
  2. Chromosomes
    - a. Female gametes have 22 pairs of autosomes and single pair of sex chromosomes – XX
    - b. Male gametes have 22 pairs of autosomes and single pair of sex chromosomes - XY
  3. Fertilization – when gametes combine to form a zygote (fertilized egg cell)
    - a. One sperm penetrates and fertilizes the ovum
    - b. Zygote has 46 chromosomes
    - c. Zygote cells divide and multiply as it travels down fallopian tube and implants in uterus
    - d. At 7 days, zygote becomes an embryo
    - e. At 3 months it becomes a fetus
  4. Pregnancy
    - a. Gestation = prenatal period or pregnancy
    - b. Normal pregnancy = 40 weeks or 280 days or 3 months
    - c. Quickening – first recognizable movement of fetus in 4<sup>th</sup> – 5<sup>th</sup> month
    - d. Miscarriage – spontaneous abortion

## 1H17.05

### Analyze characteristics and treatment of common reproductive disorders.

- A. Reproductive procedures
  1. Laparoscopy – tube inserted through small incision in abdominal wall
  2. Mastectomy – surgical removal of breast
  3. Mammogram – breast x-ray to detect tumors, usually recommended for women over age 40
  4. Vasectomy – male sterilization, removal of part of the vas deferens
  5. Circumcision – surgical removal of the foreskin
- B. Male reproductive disorders
  1. Benign Prostatic Hypertrophy (BPH)
    - a. Enlarged prostate
    - b. Common in men over age 60
    - c. Prostate enlarges and clamps down on urethra
    - d. Symps – Urinary frequency
    - e. Rx – prostatectomy, sometimes laser surgery or no Rx
- C. Female reproductive disorders
  1. Mastitis – infection in breast
  2. Endometriosis

- a. Endometrial tissue outside of uterus and abnormal patches in uterus
- b. Results in internal bleeding, formation of scar tissue, dysmenorrhea, infertility, heavy or irregular bleeding
- c. Cause - unknown
- 3. Cervical cancer
  - a. Detected by Pap (Papanicolaou) Smear – sample of cell scrapings taken for microscopic study
  - b. Rx – early detection, hysterectomy, chemotherapy and radiation
- 4. Toxic shock syndrome
  - a. Bacterial infection caused by staphylococcus
  - b. Symps – fever, rash, hypotension
  - c. Cause – use of tampons
  - d. Rx - antibiotics
- D. Contraception – methods of preventing pregnancy
  - 1. Male sterilization – vasectomy
  - 2. Female sterilization – tubal ligation

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