

## Reproductive System Unit Study Guide

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1. Name the male sex hormone
2. Where are the female sex cell produced?
3. What is formed when the sperm nucleus combines with the egg nucleus?
4. The sex chromosome of which parent determines the sex of the child?
5. Where are sperms produced?
6. Where are the mammary glands located?
7. In what female organ does the fetus develop?
8. What male reproductive gland surrounds the opening of the bladder leading into the urethra?
9. What is the bulging rounded upper part of the uterus called?
10. What is the average length of the menstrual cycle?
11. Where does the fertilization of the ovum usually take place?
12. Name the medical procedure use to remove the foreskin of the penis?
13. Name the two female hormones necessary for the development of the reproductive organs and secondary sex characteristics.
14. What is the cell division of gametes called?
15. How long do spermatozoa live once they have entered the female reproductive tract
16. A fertilized egg is also called a \_\_\_\_\_.
17. What is the normal periodic discharge of the endometrial lining in a female is known as?
18. What is another name for the foreskin of the penis?
19. Which female organ produces estrogen?
20. Redness, swelling, and pain in the breasts could indicate what medical condition?
21. Which ducts contain connect the vas deferens with the urethra?
22. What structure of the male reproductive system is shared with the urinary system?
23. What is the inner layer of the uterus called?
24. What is the intentional termination of a pregnancy called?
25. What diagnostic procedure would a physician order for a patient who detects a lump in her breast?
26. In the embryo where are the testes formed?
27. What is also known as the "change in life" and is the time when the monthly menstrual cycles come to an end?
28. What is the sterilization procedure for men called? *Vasectomy*
29. What is the scientific name for the beginning of the menses called?

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30. What is the route sperm travels from production to expulsion?
  31. Name the surgical procedure used to diagnose endometriosis and other diseases of the female reproductive system.
  32. Name the four stages of the menstrual cycle.
  33. Symptoms of this condition include dysuria, urinary retention, and an enlarged prostate.
  34. Name the two hormones that are used in contraceptive pills.
  35. Name the male reproductive organs that add an alkaline secretion to the semen that helps the sperm live longer within the acid medium of the female reproductive tract.
  36. Name the medical condition with the following symptoms; internal bleeding, inflammation outside the uterus, pain before and during menstruation, and pain during sexual intercourse.
  37. Name the three layers of the uterus.
  38. Name three things testosterone is responsible for in males.
  39. What is the sterilization procedure for females?
  40. What organ if removed prematurely can cause premature menopause in females?

1H17.04 Analyze the function of the female reproductive system

A. Ovaries

- a. Primary sex organs of the female
- b. Produce ova (female gamete) and manufacture female sex hormones (estrogen and progesterone)
- c. During the reproductive years, a single follicle in the ovary matures every 28 days with an ovum inside
- d. Reproductive ability begins with menarche (first menstrual cycle) during puberty

B. Ovulation

- a. Mature ovum is released (ovulation) about 2 weeks before menstrual period begins
- b. After ovulation, the ovum travels down the fallopian tube
- c. Fertilization takes place in fallopian tube, usually within two days of ovulation
- d. Following fertilization, the zygote implants in the uterus
- e. Development of follicle controlled by FSH, ovulation caused by LH

C. Fallopian tubes – smooth muscle and cilia help propel ova into uterus.

D. Menstrual cycle

- a. Occurs every 28 days, divided into 4 stages
- b. Follicle stage – FSH from pituitary > ovary, stimulates follicle with ovum to mature > releases estrogen and prepares uterine lining, lasting 10 days.
- c. Ovulation state – Pituitary stops FSH and releases LH, 14<sup>th</sup> day – follicle ruptures and mature ovum released

- c. Fertilization – when gametes combine to form a zygote (fertilized egg cell)
  - i. One sperm penetrates and fertilizes the ovum
  - ii. Zygote has 46 chromosomes
  - iii. Zygote cells divide and multiply as it travels down fallopian tube and implants in uterus
  - iv. At 7 days, zygote becomes an embryo
  - v. At 3 months it becomes a fetus
- d. Pregnancy
  - i. Gestation = prenatal period or pregnancy
  - ii. Normal pregnancy = 40 weeks or 280 days or 9 months
  - iii. Quickening – first recognizable movement of fetus in 4<sup>th</sup> – 5<sup>th</sup> month
  - iv. Miscarriage – spontaneous abortion

- c. Cervical cancer
  - i. Detected by Pap (papanicolaou) smear – sample of cell scrapings taken for microscopic study
  - ii. Rx – early detection, hysterectomy, chemotherapy and radiation
- d. Toxic shock syndrome
  - i. Bacterial infection caused by staphylococcus
  - ii. Symps – fever, rash, hypotension
  - iii. Cause – use of tampons
  - iv. Rx – antibiotics
- e. Contraception – methods of preventing pregnancy
  - i. Male sterilization – vasectomy
  - ii. Female sterilization – tubal ligation

## Disorders of the Reproductive System & Terms

**Impotence** – The inability to have or sustain an erection during intercourse.

**Infertility** – When conception does not occur.

**Artificial Insemination** – A procedure in which the semen is placed into the vaginal canal during time of ovulation.

**In-vitro fertilization** – A procedure in which the female is given ovulation-inducing drugs to stimulate egg production. Then a laparoscopy is done at a precise time to remove the egg. The egg and sperm are then brought together under strict laboratory conditions. If fertilization occurs and when the zygote is at the 4 to 8 cell state, it is transferred into the uterus.

**Microsurgery** – Done with the aid of magnification.

**Pelviscopy** – A special type of operative laparoscopy in which extensive procedures are performed, treats ectopic conditions, fibroids, ovarian cysts, tumors, etc.

**Amenorrhea** - The absence of the menstrual cycle

**PMS or Pre-menstrual syndrome** – A group of symptoms which are exhibited just prior to the menstrual cycle

**PID – Pelvic inflammatory disease** may be due to infections which occur in the reproductive organs and spread to the fallopian tubes and peritoneal cavity.

**Salpingitis** is an inflammation of the fallopian tubes which may result in permanent damage.

**Toxic shock syndrome** is a bacterial infection caused by a staphylococcus organism.

**Vaginal yeast infections** are generally caused by an organism called candida albicans. It is a vaginal fungus.

**Epididymitis** is a painful swelling in the groin and scrotum due to infection of the epididymis.

**Orchitis** is an inflammation of the testes.

**Prostatitis** is an infection of the prostate gland.

**Benign prostatic hypertrophy (BPH)** indicates an enlarged prostate

**Prostate cancer** is the most common cancer in males over the age of fifty.

**Prostatectomy** is the removal of the prostate gland.

**STD's – Sexually transmitted disease's.** The most common are chlamydia, genital herpes, and genital warts.