

SECTION 39-1 REVIEW

THE ENDOCRINE SYSTEM

VOCABULARY REVIEW Define the following terms.

- 1. **hormone** _____

- 2. **target cell** _____

- 3. **exocrine gland** _____

- 4. **endocrine gland** _____

- 5. **prostaglandin** _____

MULTIPLE CHOICE Write the correct letter in the blank.

- _____ 1. Glands that release hormones into the blood are part of the
a. digestive system. b. endocrine system. c. exocrine system. d. nervous system.
- _____ 2. Hormones produced from cholesterol are called
a. protein hormones. b. steroid hormones. c. peptide hormones. d. amino acid hormones.
- _____ 3. Glands do not secrete
a. hormones. b. mucus. c. prostaglandins. d. saliva.
- _____ 4. Hormones that help regulate blood calcium levels are produced by the
a. adrenal gland. b. thymus gland. c. pancreas. d. parathyroid gland.
- _____ 5. The rate of metabolism is regulated by
a. PTH. b. aldosterone. c. thyroxine. d. calcitonin.
- _____ 6. A thermostat is a good example of a(n)
a. feedback system. b. prostaglandin. c. exocrine gland. d. receptor complex.

SHORT ANSWER Answer the questions in the space provided.

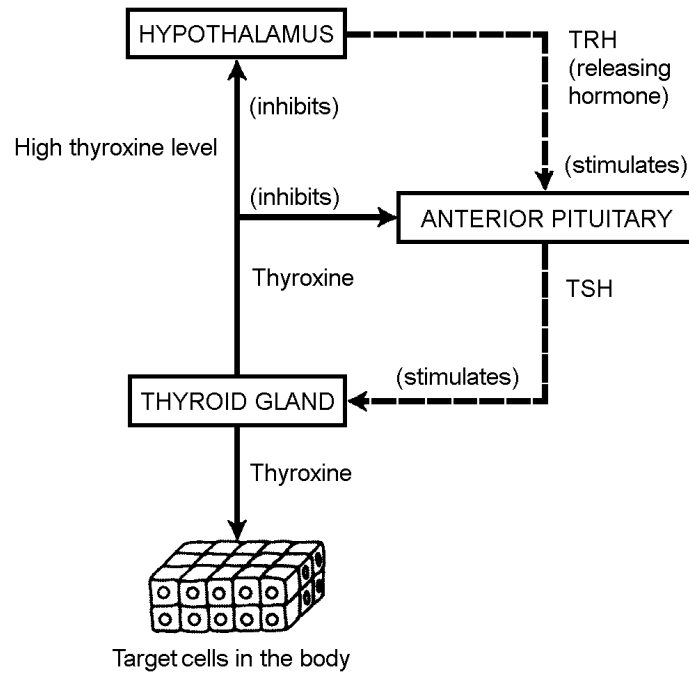
1. Give an example of how the endocrine system maintains homeostasis of the mineral calcium. (p.1002)

2. How are hormones transported throughout the body? (p.997)_____

3. Are sweat glands considered to be endocrine glands? Explain your answer. (p.998)_____

4. Discuss the effects of prostaglandins in the human body. (p.1000)_____

STRUCTURES AND FUNCTIONS Use the diagram below to answer the following questions. (p.1000)



1. What mechanism does this diagram represent? _____

2. What happens as the level of thyroxine increases in the blood? _____

3. Which hormone directly stimulates target cells in the body? _____

4. How will the three endocrine glands shown behave on a cold day when the body needs a higher metabolic activity to stay warm? _____

SHORT ANSWER Answer the questions in the space provided.

1. Alone with being a component of the nervous system, would the hypothalamus be classified as an endocrine gland?

Explain your answer. (p.1004) _____

2. List two hormones that regulate the concentration of sugar in the blood and describe their effects. (p.1007)

3. How are the adrenal cortex and adrenal medulla different from each other? (p.1006) _____

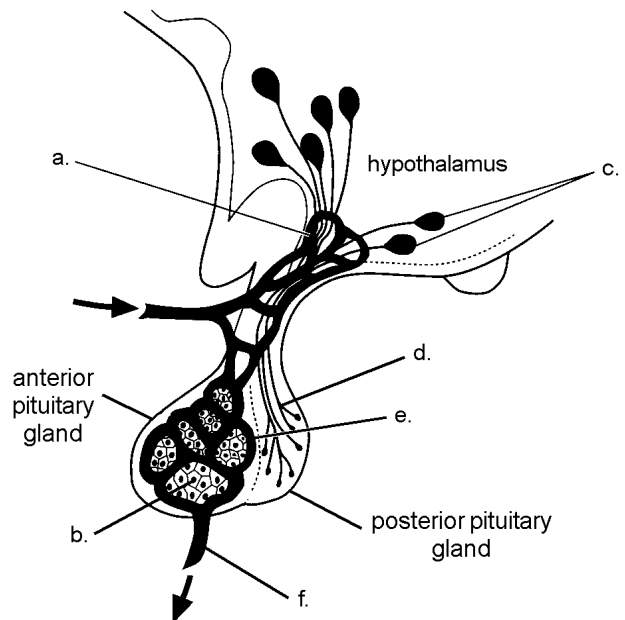
4. Name the two posterior-pituitary hormones, and describe their actions and sites of production. (p.1004) _____

5. Name the hormone that is deficient in type I diabetes mellitus. (p.1007) _____

6. Which gland produces corticosteroids? (p.1006) _____ . Name two corticosteroid hormones and describe their effects on the human body. _____

STRUCTURES AND FUNCTIONS Use the figure below to identify the location of the following structures. Write the correct letter in the appropriate blank. (pp.1003-1004)

- _____ 1. cells that produce FSH
- _____ 2. site where the releasing hormones of the hypothalamus enter the bloodstream
- _____ 3. an axon of the hypothalamus where ADH is stored
- _____ 4. cells that produce oxytocin
- _____ 5. site where releasing hormones of the hypothalamus leave the bloodstream
- _____ 6. site where FSH leaves the anterior pituitary



SECTION 39-3 REVIEW

THE REPRODUCTIVE SYSTEM

VOCABULARY REVIEW Define the following terms.

- 1. **puberty** _____

- 2. **follicles** _____

- 3. **menstrual cycle** _____

- 4. **seminiferous tubules** _____

- 5. **corpus luteum** _____

MULTIPLE CHOICE Write the correct letter in the blank.

- _____ 1. A human sperm
 - a. does not have a nucleus.
 - b. has a small amount of cytoplasm.
 - c. has chromosomes located in the midpiece.
 - d. is not capable of swimming.
- _____ 2. Menstruation does not occur if the
 - a. uterine lining thickens.
 - b. progesterone level falls.
 - c. estrogen level falls.
 - d. egg is fertilized.
- _____ 3. Fertilization usually occurs in the
 - a. uterus.
 - b. vagina.
 - c. Fallopian tube.
 - d. ovary.
- _____ 4. When during the menstrual cycle does an egg have the best chance of being fertilized?
 - a. during the follicular phase
 - b. at the beginning of the luteal phase
 - c. just before menstruation
 - d. just before ovulation
- _____ 5. A sperm tail consists of
 - a. a nuclear envelope.
 - b. enzymes used to penetrate an egg.
 - c. mitochondria.
 - d. a flagellum.

SHORT ANSWER Answer the questions in the space provided.

1. What is puberty? (p.1009) _____

2. Describe the formation of a corpus luteum and what role does it play in the female menstrual cycle? (p.1014)

3. Name and describe the four phases of the menstrual cycle. (pp.1013-1014) _____

4. Why do the testes remain outside the body cavity in a pouch called the scrotum? (p.1010) _____

5. Which two hormones that are produced by the pituitary gland are responsible for causing ovulation? (p.1013)

STRUCTURES AND FUNCTIONS Use the figure below to answer the following questions. (p.1010 and p.1012)

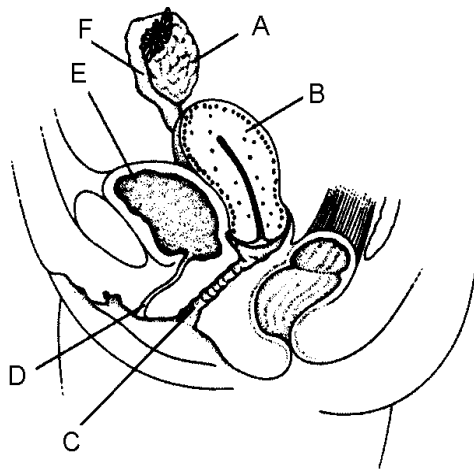


Diagram I

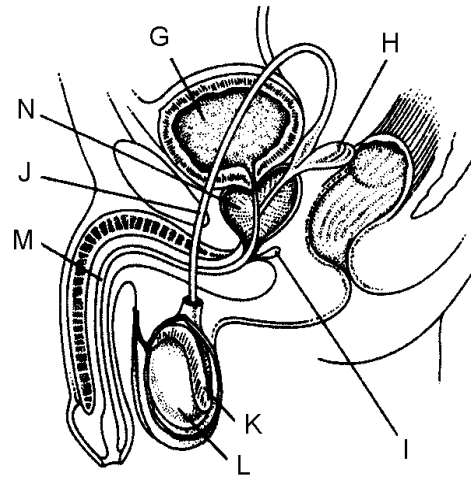


Diagram II

1. Which structure releases eggs and what is it called? _____
2. Where does fertilization typically occur and what is it called? _____
3. Which structure produces sperm and what is it called? _____
4. Through which structure do sperm exit the male body and what is it called? _____

SECTION 39-4 REVIEW

FERTILIZATION AND DEVELOPMENT

VOCABULARY REVIEW Define the following terms.

1. **zygote** _____

2. **morula** _____

3. **gastrulation** _____

4. **neurulation** _____

5. **placenta** _____

MULTIPLE CHOICE Write the correct letter in the blank.

- _____ 1. After eight weeks of development, the human embryo is known as a(n)
a. zygote. b. infant. c. fetus. d. morula.
- _____ 2. Which of the following organ systems begins to form during the first three months of development?
a. nervous system c. digestive system
b. circulatory system d. All of the above
- _____ 3. Afterbirth includes
a. amniotic fluid. c. unfertilized eggs.
b. the placenta. d. ruptured ovarian follicles.
- _____ 4. Which of the following statements is not correct about identical twins?
a. They develop from the splitting of a single zygote.
b. Identical siblings are formed by the fusion of the same sperm and egg cell.
c. They are genetically identical to each other.
d. The twins do not have to be of the same gender.
- _____ 5. What process forms the three germ cell layers known as the ectoderm, mesoderm, and endoderm?
a. gastrulation b. menstruation c. implantation d. ovulation

SHORT ANSWER Answer the questions in the space provided.

1. What is oxytocin and what effect does it have on the uterus? (p.1022) _____

2. Describe how the placenta, chorionic villi, and uterine lining are related. (p.1019) _____

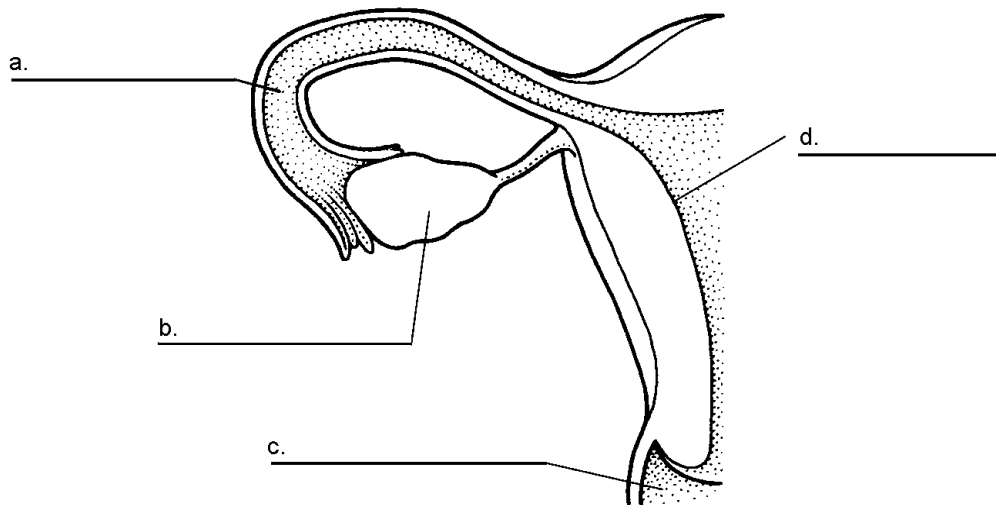
3. What prevents more than one sperm from fertilizing an egg? (p.1017) _____

4. What stages of development must be completed before implantation can occur? (p.1017) _____

5. List the three germ layers and at least one structure that each will form in the human body. (p.1018) _____

STRUCTURES AND FUNCTIONS Use the figure of part of the female reproductive system below to answer the following questions. (p.1017)

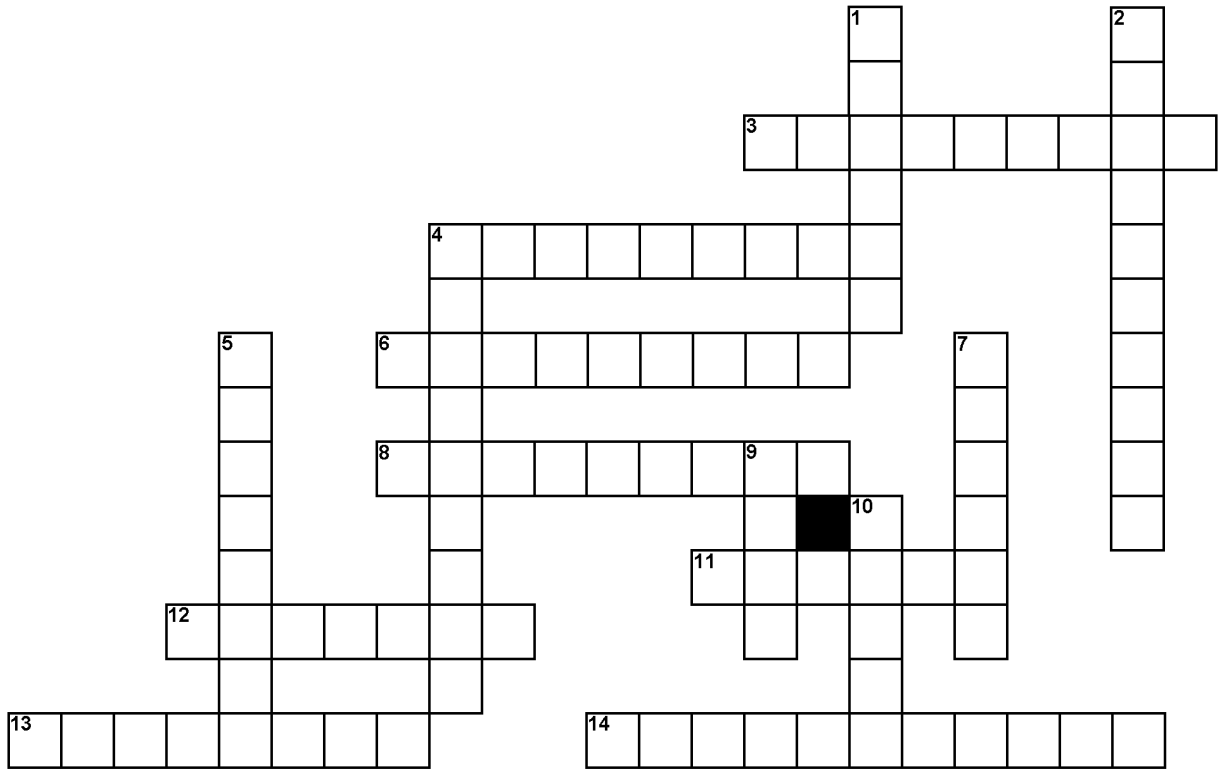
1. Label each part of the figure in the spaces provided. Use the following terms: ovary, vagina, Fallopian tube, and uterus.



2. Use the letters of the labeled structures to indicate where the following would normally be found during pregnancy:
_____ blastocyst _____ follicles _____ zygote _____ morula

VOCABULARY - CHAPTER 39

The crossword puzzle is a simple way to master some of the more important vocabulary terms in this chapter.



Across

- 3. the production of three polar bodies and one ovum during meiosis
- 4. the _____ tube is the site of fertilization where egg and sperm cells unite to become a zygote
- 6. a surgical procedure in a male that cuts and ties off the vas deferens
- 8. period of development before birth
- 11. the final thickening of the uterine lining occurs during the _____ phase of the menstrual cycle
- 12. location of the testes
- 13. organ of exchange between mother and developing child formed by the chorion and allantois
- 14. ovulation is triggered by a sharp rise of the _____ hormone

Down

- 1. the birth canal
- 2. the tubes where sperm cells mature
- 4. whip-like tail of the sperm
- 5. an immature egg surrounded by many smaller cells
- 7. a solid ball of cells that resemble a raspberry
- 9. Latin for an egg
- 10. a mixture of fluids and sperm

The following terms are **not** in this chapter but are found in this puzzle. Use a reference source and look up their meanings so you can finish this vocabulary puzzle correctly: **oogenesis, vasectomy, and gestation.**