

The Endocrine System Quiz

1. Which of the following statements regarding pituitary hormones is *false*?

- A) The hypothalamus makes oxytocin and antidiuretic hormone, which are transported the posterior pituitary for storage.
- B) Antidiuretic hormone, released by the posterior pituitary, causes urine volume to increase and blood volume to decrease.
- C) Luteinizing hormone, an anterior pituitary hormone, triggers ovulation of an egg from the ovary and causes the ruptured follicle to produce progesterone and some estrogens.
- D) Hyposecretion of follicle-stimulating hormone or luteinizing hormone leads to sterility in both males and females.
- E) (B) and (C)

2. Androgens are produced by the _____.

- A) ovaries.
- B) testes.
- C) hypothalamus.
- D) islets of Langerhans.

3. One of the two hormones made by the pituitary that help regulate reproductive cells is luteinizing hormone. The other hormone is _____.

- A) Androgens
- B) Follicle stimulating hormone
- C) Epinephrine
- D) Norepinephrine

4. Calcium level in the blood is regulated by the:

- A) Parathyroid and thyroid
- B) Adrenal medulla and pancreas
- C) Testes
- D) Parathyroid and thymus

5. Which one of the following is NOT typical of the changes that follow the binding of a hormone to its target cells:

- A) plasma membrane permeability changes
- B) cellular mutations occur
- C) enzymes are activated or inactivated
- D) mitosis is stimulated

6. Being lipid soluble, steroids can do all the following EXCEPT:

- A) catalyze cyclic AMP
- B) diffuse through the plasma membranes of target cells
- C) enter the nucleus
- D) activate genes to transcribe mRNA for protein synthesis

7. Estrogens and progesterone are produced by:

- A) the testes.
- B) the ovaries.
- C) the adrenal glands.
- D) the hypothalamus.

8. Failure of the pituitary to stop producing growth hormone after body growth is completed results in _____.

- A) Gigantism
- B) Tetany
- C) Kidney failure
- D) Acromegaly

9. Most endocrine organs are prodded into action by other hormones; this type of stimulus is called:

- A) hormonal stimulus
- B) humoral stimulus
- C) neural stimulus
- D) receptor-mediated stimulus

10. Tropic hormones:

- A) stimulate the pineal gland to secrete hormones
- B) stimulate the thymus gland to secrete hormones
- C) stimulate other endocrines glands to secrete hormones
- D) stimulate nervous tissue

11. The body's major metabolic hormone is released from the:

- A) Pituitary
- B) Thyroid
- C) Thymus
- D) Hypothalamus

12. Most of the endocrine system is regulated by:

- A) negative feedback mechanisms.
- B) positive feedback mechanisms.
- C) hormone-receptor complexes.
- D) hormone-gene complexes.

13. Nervousness, increased body temperature, and increased blood-pressure are indications of _____.

- A) diabetes mellitus
- B) hypoglycemia
- C) hypothyroidism
- D) hyperthyroidism

14. The alpha cells of the pancreas secrete _____ which targets the _____.

- A) glucagon; liver
- B) melatonin; liver
- C) glucagon; kidney
- D) calcitonin; thyroid

15. The growth hormone produced by the pituitary gland is known as _____.

- A) somatotropin
- B) prolactin
- C) luteinizing hormone
- D) follicle-stimulating hormone

16. The rate of metabolism of all body cells is regulated by _____.

- A) parathyroid hormone
- B) aldosterone
- C) calcitonin
- D) thyroid hormone

17. The relatively constant internal environment of the body is maintained by _____.

- A) negative feedback.
- B) positive feedback.
- C) homeostasis.
- D) metabolism.

18. The secretions from which of these glands differs between males and females?

- A) Adrenal.
- B) Parathyroid.
- C) Gonadal.
- D) Pancreas.

19. The two regulatory systems of the body are the endocrine system and the _____.

- A) nervous system
- B) immune system
- C) circulatory system
- D) respiratory system
- E) skeletal system

20. Why can a single endocrine hormone produce a wider spread of responses in more of the body than a single nerve cell?

- A) A single hormone can target many different responses, whereas a nerve only targets a single response.
- B) Blood can carry all the same hormones throughout the body simultaneously, producing responses all over the body; nerve cells can only target a small number of cells.
- C) Nerve cells and blood work together. The endocrine has nothing to do with the nervous system.
- D) Endocrine hormones only target a very small number of precise responses.

21. Which of the following has both endocrine and exocrine functions?

- A) anterior pituitary
- B) thyroid
- C) adrenal medulla
- D) pancreas

22. Which of the following produce antagonistic results?

- A) calcitonin and parathyroid hormone
- B) FSH and LH
- C) ADH and vasopressin
- D) oxytocin and prolactin

23. If you drank a liter of water very quickly, the result would be

- A) increased secretion of oxytocin
- B) decreased secretion of antidiuretic hormone
- C) decreased secretion of oxytocin
- D) increased secretion of antidiuretic hormone

24. How is hormone secretion regulated?

- A) by the nervous system
- B) by other hormones
- C) by changes in blood composition
- D) all of the above

25. Target cells for hypothalamic releasing hormones are in the

- A) thyroid
- B) hypothalamus
- C) anterior pituitary
- D) posterior pituitary

26. The posterior pituitary gland stores and secretes

- A) oxytocin and antidiuretic hormone
- B) human growth hormone and thyroid stimulating hormone
- C) prolactin and follicle stimulating hormone
- D) glucocorticoids and androgens

27. What stimulates the release of PTH from the parathyroid gland?

- A) TSH from the posterior pituitary gland
- B) high levels of calcium in the blood
- C) calcitonin from the anterior pituitary gland
- D) low levels of calcium in the blood

The release of cortisol is stimulated by

- A) aldosterone
- B) angiotensin
- C) antidiuretic hormone (ADH)
- D) adrenocorticotrophic hormone (ACTH)

Solutions

1. B
2. B
3. B
4. A
5. B
6. A
7. B
8. D
9. A
10. C
11. B
12. A
13. D
14. A
15. A
16. D
17. C
18. C
19. A
20. B
21. D
22. A
23. B
24. D
25. C
26. A
27. D
28. D