

Endocrine Hormones

1. Which hormone is primarily involved in the regulation of metabolic rate?

- A) Insulin
- B) Thyroxine
- C) Cortisol
- D) Epinephrine

2. Which of the following hormones is secreted by the adrenal medulla?

- A) Aldosterone
- B) Cortisol
- C) Adrenocorticotropic hormone (ACTH)
- D) Norepinephrine

3. What is the target tissue for parathyroid hormone (PTH)?

- A) Bone and kidneys
- B) Liver
- C) Pancreas
- D) Small intestine

4. Which hormone promotes glycogenolysis in the liver?

- A) Insulin
- B) Glucagon
- C) Somatostatin
- D) Growth hormone

5. Prolactin is secreted by which gland?

- A) Adrenal
- B) Hypothalamus
- C) Anterior pituitary

- D) Posterior pituitary
6. Which hormone is involved in the "fight or flight" response?
- A) Adrenocorticotrophic hormone (ACTH)
 - B) Thyroid-stimulating hormone (TSH)
 - C) Adrenaline
 - D) Luteinizing hormone (LH)
7. What is the main effect of antidiuretic hormone (ADH)?
- A) Decrease blood pressure
 - B) Increase urine production
 - C) Decrease blood glucose
 - D) Increase water reabsorption in the kidneys
8. Which hormone is used clinically to treat some cases of breast cancer?
- A) Oxytocin
 - B) Estrogen
 - C) Tamoxifen
 - D) Progesterone
9. Which of these hormones is a part of the mineralocorticoid class?
- A) Aldosterone
 - B) Cortisol
 - C) Testosterone
 - D) Progesterone
10. Which hormone plays a key role in the sleep-wake cycle?
- A) Growth hormone
 - B) Melatonin
 - C) Cortisol

D) Insulin

11. The synthesis of which hormone requires iodine?

A) Insulin

B) Cortisol

C) Thyroxine

D) Epinephrine

12. Which hormone is primarily responsible for the regulation of blood sugar levels postprandially (after eating)?

A) Insulin

B) Glucagon

C) Somatostatin

D) Growth hormone

13. Which hormone stimulates ovulation in the female reproductive cycle?

A) Estrogen

B) Follicle-stimulating hormone (FSH)

C) Luteinizing hormone (LH)

D) Progesterone

14. Which of the following hormones promotes sodium reabsorption by the kidneys?

A) Aldosterone

B) Atrial natriuretic peptide (ANP)

C) Renin

D) Vasopressin

15. Which hormone is known to suppress the immune response and inflammation?

A) Cortisol

B) Epinephrine

C) Growth hormone

D) Insulin

16. Which hormone is most directly involved in the regulation of the menstrual cycle?

A) Testosterone

B) Progesterone

C) Insulin

D) Prolactin

17. How does the hormone leptin primarily affect the body?

A) Regulates metabolism

B) Suppresses appetite

C) Stimulates growth

D) Enhances memory

18. Which gland is responsible for the production of cortisol?

A) Adrenal cortex

B) Adrenal medulla

C) Anterior pituitary

D) Thyroid gland

19. Somatostatin has an inhibitory effect on which of the following?

A) Insulin and glucagon secretion

B) Adrenaline and noradrenaline secretion

C) Thyroid hormone and cortisol secretion

D) Prolactin and oxytocin secretion

20. Gonadotropin-releasing hormone (GnRH) stimulates the release of which hormones?

A) FSH and LH

B) T3 and T4

C) ACTH and TSH

D) Prolactin and GH

True/False Questions

21. T/F: Oxytocin is commonly referred to as the "love hormone".
22. T/F: Glucagon is secreted by the alpha cells of the pancreas.
23. T/F: Cortisol is produced by the zona reticularis of the adrenal cortex.
24. T/F: The posterior pituitary gland synthesizes ADH and oxytocin.
25. T/F: Growth hormone-releasing hormone (GHRH) stimulates the anterior pituitary to release growth hormone.
26. T/F: Estrogen is important for bone health in both men and women.

Fill in the Blanks

27. _____ is the hormone responsible for increasing calcium absorption in the intestines.
28. The secretion of _____ leads to increased pigment in the skin and is often related to the circadian rhythm.
29. Thyroid hormones are synthesized from tyrosine and _____.
30. _____ resistance is a condition that can lead to type 2 diabetes.
31. The _____ gland secretes hormones that control other endocrine glands in addition to its own hormone production.
32. The hormone _____ can decrease blood pressure by antagonizing aldosterone and promoting sodium excretion.

Match the hormone with its primary function:

- | | |
|---|---|
| 33. Insulin | A) Increases blood calcium levels |
| 34. PTH | B) Decreases blood glucose levels |
| 35. ACTH | C) Stimulates secretion of steroid hormones by the adrenal cortex |
| 36. GH | D) Promotes growth and cell reproduction |
| 37. TSH | E) Stimulates the production and release of thyroid hormones |
| 38. Corticotropin-releasing hormone (CRH) | F) Pancreas |
| 39. Thyroid-stimulating hormone (TSH) | G) Adrenal gland |

- | | |
|----------------|--------------------|
| 40. Insulin | H) Thyroid gland |
| 41. Adrenaline | I) Hypothalamus |
| 42. Oxytocin | J) Pituitary gland |

Short Answer Questions

43. What is the primary effect of thyroxine on the body's metabolism?
44. Explain the role of ADH in kidney function.
45. Name two effects of growth hormone on metabolism.
46. How does calcitonin affect blood calcium levels?
47. What is the relationship between ACTH and the adrenal glands?
48. Describe the action of glucocorticoids on carbohydrate metabolism.
49. What role does estrogen play in the female reproductive system?
50. Which hormones are involved in the stress response, and how do they prepare the body for action?