

The Endocrine System

Fill in the blanks

Functions of the endocrine system

1. Two major communication systems and key components of homeostasis, are:
 - a. The nervous system that communicates via _____
 - b. The endocrine system that communicates via _____
2. Neurotransmitters are released from _____ and target
 - a. Other neurons
 - b. _____
 - c. _____
3. Hormones are released from endocrine _____ and can target any cell in the body.
4. Exocrine glands are part of _____ tissue and secrete substances through a duct to
 - a. A hollow _____
 - b. The _____ of the body
5. State if the following glands are endocrine or exocrine:
 - a. Sweat glands _____
 - b. Pancreas releasing insulin hormone into bloodstream _____
 - c. Pancreas releasing digestive enzymes into duodenum _____
 - d. Thyroid gland _____
 - e. Gastric glands that release hydrochloric acid _____
 - f. Hypothalamus _____
6. List some examples of thing that are regulated by homeostatic mechanisms of hormones:
 - a. Blood sugar
 - b. _____
 - c. _____
 - d. _____
7. The endocrine systems functions to regulate many processes of living including growth, metabolism, stress, _____, _____, and _____.

Types of hormones

8. For hormones to exert an effect they must bind to a _____ either on the cell membrane or _____.

9. _____ - _____ hormones bind their receptor on the cell membrane
10. _____ - _____ hormones bind their target receptor inside the cell
11. Examples of water-soluble hormones include:
- a. The catecholamines: _____, _____, and _____.
12. Examples of fat-soluble hormones include:
- a. Thyroid hormones
- b. Steroid hormones: _____, _____, Androgens, calcitriol (vitamin D).
13. **Label the endocrine glands in the diagram:** hypothalamus, pituitary gland, thyroid gland (anterior view), parathyroid gland, kidney, ovaries, testes, thymus, adrenal glands, pancreas

