

Hypothalamus and Pituitary Gland

Read Chapter 17.3

Fill in the blanks

1. The stalk that connects the hypothalamus to the anterior pituitary gland is called the _____
2. The hypothalamus connects to the **posterior** pituitary gland through _____.
3. There are 2 hormones made in the hypothalamus that are stored in the posterior pituitary gland:
 - a. _____
 - b. _____
4. The bone that protects the pituitary gland is the _____ bone and it has a depression where the pituitary gland sits called the _____.
5. Write the anterior pituitary hormone produced when stimulated by each of the hypothalamus hormones (include the hormone abbreviation in brackets):
 - a. Growth hormone releasing hormone (GHRH) _____
 - b. Thyrotropin releasing hormone (TRH) _____
 - c. Corticotropin releasing hormone (CRH) _____
 - d. Gonadotropin releasing hormone (GnRH) _____ and _____
 - e. Prolactin releasing hormone (PRH) _____
6. Below are hormone characteristics, write the correct hormone beside each one. You may use each hormone more than once.
 - a. Causes the kidneys to reabsorb water when blood pressure is low _____
 - b. Causes the uterus to contract during childbirth _____
 - c. Causes the anterior pituitary gland to produce ACTH _____
 - d. Causes the anterior pituitary to produce TSH _____
 - e. Stimulates bones to take up minerals and increases protein synthesis in muscles _____
 - f. Is involved in feeling love, empathy, and trust _____
 - g. Stimulates the adrenal cortex to produce cortisol _____
 - h. Stimulates the production of thyroid hormones _____

- i. Causes the gonads to produce testosterone _____
 - j. Stimulates milk production during lactation _____
 - k. Stimulates milk ejection during breast feeding _____
 - l. A lack of this hormone can cause dwarfism _____
 - m. A hypothalamus hormone that inhibits the production of prolactin

 - n. Increases blood sugar by stimulating the breakdown of stored fat

 - o. Stimulates ovulation _____
 - p. Stimulates development of germ cells to produce sperm or eggs

 - q. A hormone that is primarily regulated by positive feedback _____
7. Name 2 hormones that are inhibited by stress:
- a. _____
 - b. _____
8. Name 3 hormones stimulated by exercise:
- a. _____
 - b. _____
 - c. _____