

Hormones and Homeostasis

Period:

Background information:

Endocrine glands release chemical messengers (hormones) that help regulate function throughout the body. Sometimes these glands fail to respond to normal feedback loops, resulting in a disruption of homeostasis. For example, the pituitary gland, located in the brain, secretes human growth hormone. If cells in the gland produce too much of this hormone, a person will continue to grow far above average height. The result is a condition known as gigantism, as shown in the image on the left.

If the cells produce too little of the hormone, a person will grow to far less than average height. This condition is known as dwarfism. As shown in the image to the right.



Problem:

How does the disorder of a particular endocrine gland affect the rest of the body?

Research: Circle which disorder was assigned to you

Hypothyroidism	Acromegaly	Polycystic ovary syndrome (PCOS)	Cushing's syndrome	Addison's disease
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Answer the following questions:

1. Describe the function of the gland and the hormones it releases.
2. What happens to the functioning of the gland in the disorder?
3. How does the disorder affect the rest of the body?
4. How is the disorder diagnosed?
5. What treatments or lifestyle changes are necessary?
6. What are the long-term health effects if the disorder remains untreated?