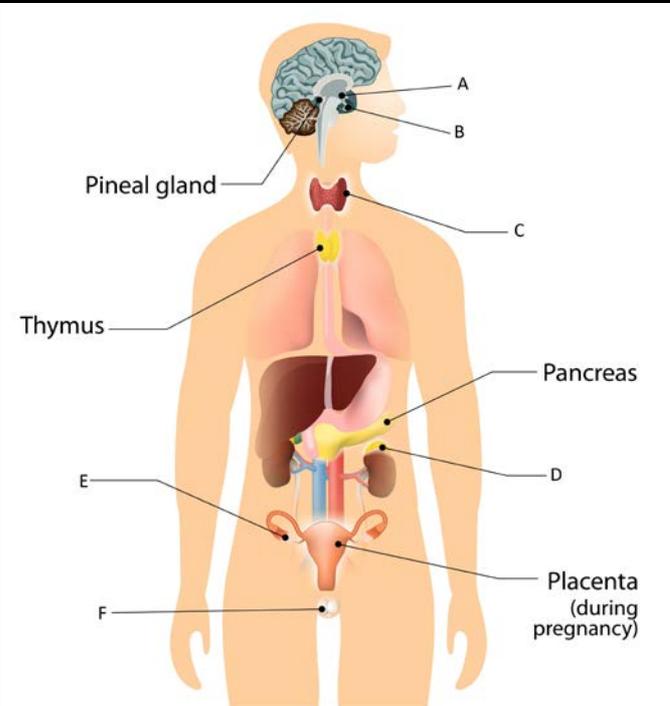


Title: Biopsychology

Topic: The function of the endocrine system: glands and hormones.

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|----|--|--|
| Q1 | MCQ: Which of the following statements about the hypothalamus is false? The hypothalamus... | |
| A | regulates the endocrine system. | |
| B | is physically connected to the pituitary gland. | |
| C | stimulates the release of hormones from the pituitary gland. | |
| D | is sometimes known as the master gland. | |

| | |
|---|--|
| Q2 Label the endocrine system | |
| Label the endocrine system using the key terms below and answer the additional question. | |
|  | <ul style="list-style-type: none"> ▪ A = ▪ B = ▪ C = ▪ D = ▪ E = ▪ F = <p>Key terms: Adrenal glands, Ovaries, Thyroid, Pituitary Gland, Testes, Hypothalamus.</p> <p>Select two of the glands above and outline the main hormones released. (2 marks)</p> |

| |
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| Q3 Fill in the blanks |
| Below is an explanation of how the endocrine system triggers the fight or flight response. Using the key terms below, fill in the blanks. |
| The adrenal medulla releases _____ and _____ which prepares the body for fight or flight. When these hormones circulate through the body, it causes a number of physiological changes, including: increased _____ rate which pushes _____ to the muscles, heart and other vital organs. Breathing becomes more rapid to increase our intake of _____. These hormones also trigger the release of _____ to support energy to the body for the fight-or-flight response. |
| Key term: Glucose, Adrenaline, Blood, Oxygen, Noradrenaline, Heart. |

Q4 Match them up

Match the hormones on the left, with their effect on the right.

| HORMONE | EFFECT |
|---------------------------------------|--|
| Testosterone | Responsible for regulating metabolism . |
| Oestrogen | Responsible for the development of male sex characteristics during puberty while also promoting muscle growth. |
| Adrenaline | The key hormone in the fight or flight response. |
| Cortisol | Stimulates the adrenal cortex and the release of cortisol during the stress response. |
| Thyroxine | Controls the regulation of the female reproductive system, including the menstrual cycle and pregnancy. |
| Adrenocortical trophic hormone (ACTH) | Stimulates the release of glucose to provide the body with energy, while suppressing the immune system. |

Q5 Spot the mistakes

Below is an answer to the following question: *Describe the functions of the endocrine system. (6 marks)* The answer contains 6 mistakes. Can you highlight all 6 mistakes and say why they're wrong?

The function of the endocrine system is to regulate the activity of organs within the body. For example, the job of the hypothalamus is to influence the release of hormones from other glands within the body.

The pituitary gland has two lobes and the posterior lobe which releases ACTH which stimulates the adrenal medulla to release cortisol when we are stressed. In turn, cortisol stimulates the release glucose to provide the body with energy while enhancing the immune system.

Another gland, the thyroid gland, is responsible for the release of melatonin, which plays an important role in biological rhythms, including the sleep-wake cycle and metabolism.