



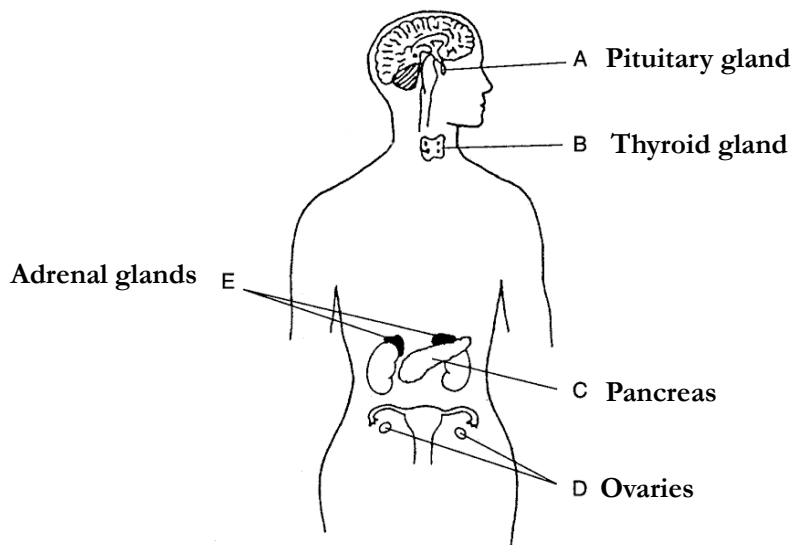
Endocrine System

1 What is the endocrine system?

- A collection of endocrine glands
- That release hormones into the blood
- And tell cells around the body to do certain things

[2 marks]

2 Label A-E on the follow diagram



[5 marks]

3 What is the male version of D? What does it do?

- Testes
- It secretes the hormone testosterone
- Make sperm

[3 marks]

4 What are hormones and how do they work?

- Small chemicals that are released into the blood
- Pass around the body and bind to cells that have specific receptors
- Which tells those cells to do something

[2 marks]

5 What is the role of the thyroid and the hormone it produces?

- Produces thyroxine
- Which regulates our metabolism

[2 marks]

6 Why is the pituitary gland known as the 'master gland'?

- It produces many hormones
- Some of which regulate other glands by telling them to produce more or less of their own hormones

[1 mark]

7 Discuss how the endocrine system differs from the nervous system

- Endocrine system relies on chemical molecules
 - Nervous system relies on electrical impulses
- Endocrine system is long lasting as hormones stay in the blood for a long time
 - Nervous system is short lasting as the impulses disappear once they have communicated their message
- Endocrine system is widespread as hormones go throughout body
 - Nervous system is precise/specific as nerves go to one specific area
- Endocrine system is slow as hormones are transported in blood and by diffusion
 - Nervous system is fast because nerve impulses travel very fast

[6 marks]

8 Adrenaline increases our heart rate and prepares us for 'flight or fight'. Which organ produces it?

- The adrenal glands

[1 marks]

9 How is the level of thyroxine controlled? (higher tier)

- Negative feedback
- The pituitary gland can detect low levels of thyroxine
- In response it produces thyroid stimulating hormone, TSH
- TSH stimulates the thyroid to produce more thyroxine

[4 marks]

[Total 26 marks]