

The endocrine system

What's in a name? - The word endocrine derives from the Greek words "endo," meaning within, and "crinis," meaning to secrete,

Introduction to the endocrine system: Core knowledge 1

Watch the video on the prep page and answer these questions – *you'll need to pause quite a bit*

- 1) The endocrine system co-ordinates homeostasis. What does this mean in the context of our bodies?

- 2) What role does the endocrine system perform?

- 3) What does the endocrine system primary consist of?

- 4) What do these constituents do?

- 5) What are hormones?

- 6) Where do they travel and to where?

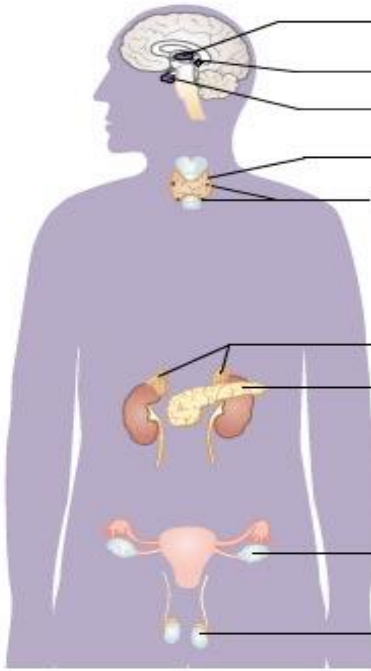
- 7) Give examples of the actions that hormones help regulate or control

- 8) How do hormones work?

Core knowledge 2

Watch this short video on the endocrine system and see if you can label the glands on the diagram

<https://www.tutor2u.net/psychology/reference/biopsychology-endocrine-system>



Challenge: click on this link and read details about the endocrine system. Make further notes on important glands, the hormones they release and their functions

<http://www.innerbody.com/image/endoov.html>

The endocrine system: Fight or flight

Instructions: Click on the link to watch a brief video about Flight or Flight

<https://www.youtube.com/watch?v=uxweRCXaLVAlight>

Then attempt to fill out the gapped work sheet below using the appropriate word to answer this 6 mark exam question.

Outline the key processes involved with the fight or flight response, make reference to the role of adrenaline in your answer (6 marks)

Core knowledge 1: up for the fight (or flight)

A person will change from their normal resting state (the parasympathetic state) to the physiologically aroused _____ state when faced with a perceived _____. This causes the _____ to release _____ (ACTH). This has the effect on the cells of the _____ causing them to release _____. This triggers physiological changes in the body which creates the physiological arousal necessary for the _____ or _____ response

adrenaline threat sympathetic adrenocorticotrophic hormone
adrenal gland fight pituitary gland flight

Core knowledge 2: what biological changes occur due to increased adrenaline?

The physiological changes initiated by the secretion of adrenalin include increased heart rate, increased breathing rate, dilated pupils, inhibits digestion and inhibits saliva production

Q) feeling anxious? This often leads to the sensation of butterflies in the stomach, can you guess using a physiological reason why these may occur?

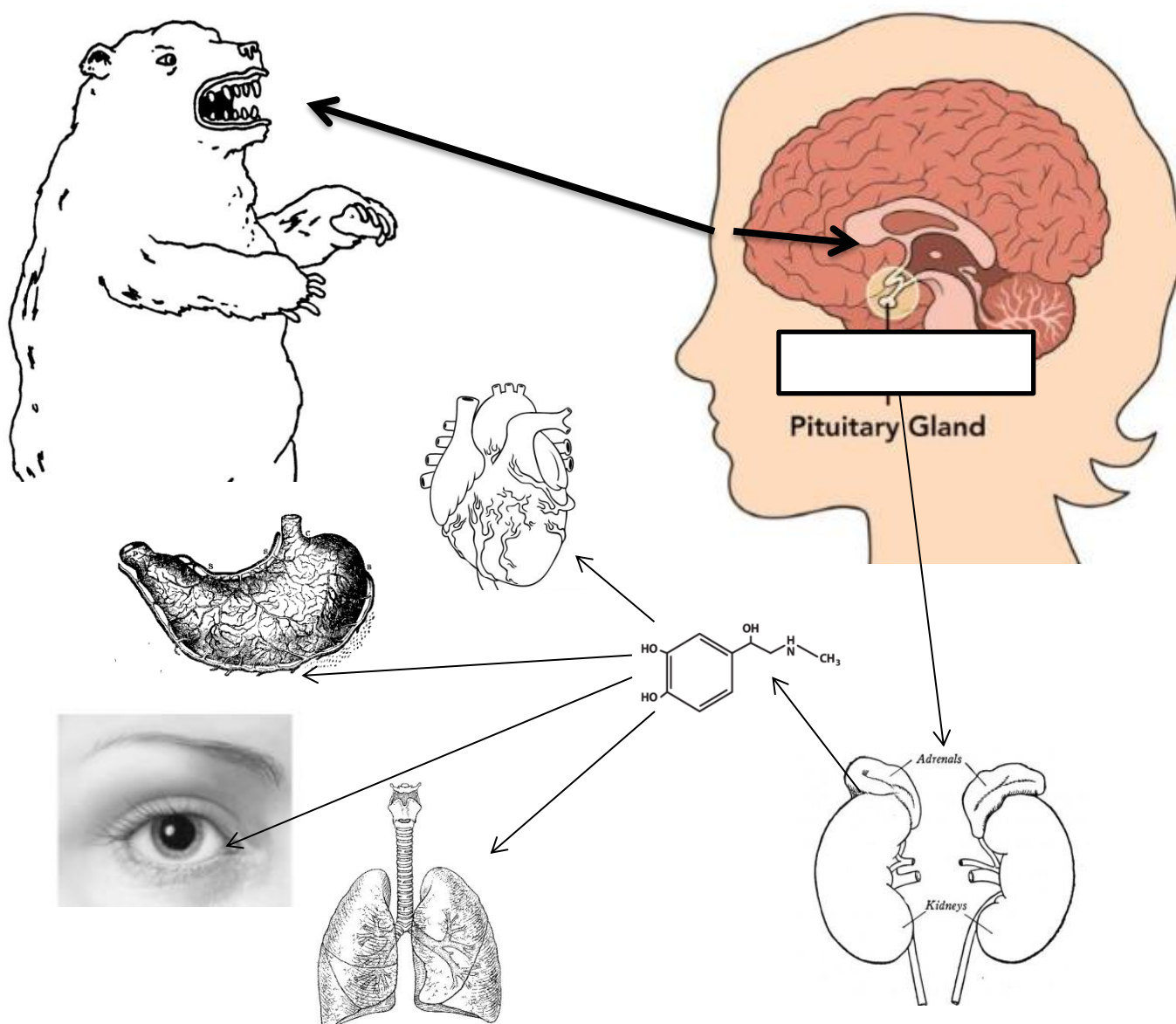
Core knowledge 3: - calming down again

Once the threat has passed, the parasympathetic nervous system is activated to _____ the person down and return them to a _____. _____ is no longer secreted from the _____. Heart and breathing rates return to normal, and the person establishes _____. The parasympathetic nervous system works in _____ to the sympathetic nervous system and act like a _____ so we do not use up all our vital resources by staying in a constant state of heightened physiological arousal

adrenal gland calm homeostasis adrenaline resting state
brake opposition

TASK 2: Label the diagram using the words and phrases below

threat	heart rate increases to pump blood to vital organs	pituitary gland
Releases adrenocorticotrophic hormone (ACTH)	Lungs to increase breathing rate for more oxygen	
Detected by cells in the adrenal glands (adrenal medulla)	adrenaline	
pupils dilate for increased vision	detected by sensors (eye) and passed to...	
	stomach to divert blood to the muscles to increase strength	



Don't forget the parasympathetic response: After a few minutes, the parasympathetic branch of the ANS is activated, and the body returns to normal by establishing homeostasis. Heart rate and respiratory rates decrease, adrenaline secretion slows down, the feeling of butterflies subside and sweating stops.