

Curriculum Links for: ABPI Hormones and their Effects

Key Stage 4 (Age 14-16)

Science

National Curriculum	Life Processes and Living Things		
	Humans as organisms		
	<i>Hormones</i>	2.15	that chemicals called hormones, produced by glands, control some body functions
		2.16	the effects of insulin and sex hormones
		2.17	medical uses of hormones, including the control and promotion of fertility and the treatment of diabetes...
	<i>Homeostasis</i>	2.18	the importance of maintaining a constant internal environment
		2.20	that the kidneys regulate the water content of the body
	Green plants as organisms		
	<i>Hormones</i>	3.4	the hormonal control of plant growth and development, including commercial applications

GCSE Specifications

WJEC	Science / Biology 1	B1 6a 6c 6d	<ul style="list-style-type: none"> Understand that animals need to regulate the conditions inside their bodies to keep them relatively constant and protected from harmful effects Use data to draw conclusions about the relationship between glucose and insulin levels in the blood and understand that glucose levels need to be kept within a constant range Know that diabetes is a condition in which a person's blood glucose may rise to a fatally high
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			<p>level because the body does not produce enough insulin. It can be diagnosed by the presence of glucose in the urine</p> <ul style="list-style-type: none"> •
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Applied Science

GCSE Specifications			
WJEC	Applied Science (Double)	Unit 2 (a) 7 8	<p>Science and Society <i>The human body and health</i></p> <ul style="list-style-type: none"> • Know that hormones are chemical messengers, produced by glands and carried by the blood. Hormones control many body functions • Understand that glucose levels need to be fairly constant and that when the blood sugar level is too high, the pancreas releases the hormone insulin into the blood. This causes the liver to reduce the sugar level by converting sugar into insoluble glycogen and then store it. Diabetes is a condition in which a persons blood glucose may rise to a fatally high level because the body does not produce enough insulin

This web resource covers the following aspects:

- **Where the endocrine glands are** – interactive diagram that displays where each gland is and its hormone
- **Sex hormones - puberty**
- **Sex hormones - the menstrual cycle**, includes an animation that shows the varying levels of oestrogen, progesterone, FSH and LH through one cycle
- **Sex hormones – pregnancy**, birth and breast feeding, IVF, contraception, the menopause and HRT
- **Insulin** – Diabetes, genetically engineered insulin
- **Growth hormones**
- **Adrenaline and ADH**
- **Plant hormones** and commercial use of plant hormones