

Endocrine system: hormones and their effects

<http://mravagnan.cumbresblogs.com/2018/03/06/s4-biology-virtual-period-endocrine-system-hormones-and-their-effects/>

1. Read page 1 from [THIS LINK](#)

Act: Define the term hormone

Hormone: are chemical substances in the body which are made by endocrine glands. They pass into the bloodstream. **and cause changes in one or more target organs.**

2. Where are the endocrine glands?

Read the descriptions of the glands and the hormones they produced [here](#)

Act: Build a table to summarise the hormones each gland produces. You should include in the columns:

– Endocrine gland, Where in the body and Hormone produced

in the lines: Pituitary, testis, ovary, pancreas, adrenal and thyroid.

Endocrine Gland	Where in the body	Hormone produced
Pituitary	base of the brain	Number of substances (ex: growth hormone)/ FSH/LH
testis	male reproductive organ	Male sex hormones (ex: testosterone → control body changes at puberty and also sperm production)
ovary	beside the uterus on each side of the lower abdomen.	female sex hormones (ex: progesterone and oesterone) → control body changes at puberty and during the

		menstrual cycle
pancreas	behind the stomach	insulin and glucagon : regulates the level of sugar in blood
adrenal	on top of each kidney	adrenaline: speeds up the heart rate, and other effects
thyroid	base of neck	thyroxine: control the rate of chemical process in the body

3. Effects of insulin in the human body

Last year you studied the effect of insulin and glucagon secreted by the pancreas.

Act: Draw a flow diagram to explain the importance of insulin in the control of glucose in blood

glucose level	effect on pancreas	effect on liver	effect on glucose level
too high	insulin secreted into the blood	liver converts glucose into glycogen	goes down Back to normal
too low	insulin not secreted into the blood	liver does not convert glucose into glycogen	goes up

