

Summary of Hormones

Hormone	Endocrine Gland	Target	Primary function
Thyroid stimulating hormone(TSH)	Anterior pituitary lobe	Thyroid gland	-stimulates release of thyroxine from thyroid -thyroxine regulates cell metabolism
Adrenocorticotrophic hormone (ACTH)		Adrenal cortex	-stimulates the release of hormones involved in stress response
Growth Hormone (GH)		Most cells	-promotes growth by protein synthesis by increasing the uptake of amino acids by cells -causes a switch in cellular fuels from glucose to fatty acids
Follicle stimulating hormone (FSH)		Ovaries, testes	- in females, stimulates follicle development in ovaries -in males, promotes the development of sperm cells in testes
Luteinizing hormone(LH)		Ovaries, testes	-in females, stimulates ovulation and formation of corpus luteum -in males, stimulates the production of the sex hormone testosterone
Prolactin (PRL)		Mammary glands	- stimulates and maintains milk production in lactating females
Oxytocin	Posterior lobe of pituitary	Uterus, mammary glands	-initiates strong contractions -triggers milk release in lactating females
Antidiuretic hormone (ADH)		Kidneys	-increases water re-absorption by kidneys
Melatonin	Pineal Gland	Brain cells	-monitor sleep/wake cycles
Thyroxine (T4) & Triiodothyronine (T3)	Thyroid Gland	Body cells	-regulates the rate at which glucose is oxidized within the body cells (slow/fast metabolism!)
Calcitonin		Blood stream	- lowers calcium levels in the blood
Parathyroid Hormone (PTH)	Parathyroid gland	Blood stream	- raises calcium levels in the blood

Epinephrine & Norepinephrine	Adrenal Medulla	Blood stream	-promotes conversion of glycogen to glucose -brings about an increase in blood sugar -brings about an increase in heart rate, and cell metabolism (Fight Flight Response)
Cortisol (a type of glucocorticod)	Adrenal cortex	Blood stream	-promotes conversion of amino acids to glucose -promotes the breakdown of fats to fatty acids -decreases glucose uptake by the muscles (not by the brain!) -brings about an increase in blood sugar in response to stress -suppression of the inflammatory response of the immune system (Long term stress response)
Mineralocorticoids		Kidneys	-increase the amount of sodium ions and water retained by kidneys -increase the blood volume and blood pressure
Insulin	Pancreas(Islets of Langerhans)	Body cells	-increases the permeability of cells to glucose; increases glucose uptake -allows for the conversion of glucose to glycogen -brings about a decrease in blood sugar
Glucagon		Body cells	-promotes conversion of glycogen to glucose -brings about an increase in blood sugar
Estrogen	Follicle cells (ovary)	Body cells	-inhibits the growth of facial hair, initiates secondary female characteristics, and causes thickening of the endometrium
Progesterone	Corpus luteum (ovary)	Body cells	-inhibits ovulation, inhibits uterine contractions, and stimulates the endometrium