

<b>Hormone</b>	<b>Function</b>	<b>Origin of Hormone, Organ that releases the hormone</b>	<b>Cause of Hormone release</b>
ADH (antidiuretic hormone)	Regulates osmotic pressure of body fluids by increasing water absorption in kidneys, initiates sense of thirst	Hypothalamus, Posterior Pituitary Gland	Low body water
Aldosterone	Increases sodium reabsorption in distal tubule, increasing the osmotic gradient, therefore increasing water reabsorption.	Adrenal cortex (adrenal gland)	Decreased blood pressure due to fluid loss
Insulin	Causes muscle, liver, and other body cells to store more glucose and glycogen, decreasing blood glucose level	Liver, Pancreas	An increase in blood glucose
Glucagon	Causes stored glycogen into the liver to be converted into glucose and released into the blood, increasing blood glucose level	Liver, Pancreas	A decrease in blood glucose
Epinephrine (Adrenaline)	Increases blood sugar, heart rate, breathing rate and cell metabolism, fight-or-flight response	Adrenal Medulla (Adrenal Gland)	Stress due to things such as physical threat, fight-or-flight
Norepinephrine (Noradrenaline)	Increases heart rate, glucose release and blood flow to skeletal	Adrenal Medulla (Adrenal Gland)	Stress causing psychological changes

	muscles and brain, fight-or-flight		
Cortisol	Increases blood amino acids (converted into glucose), increase the break down of fats for more energy, decrease blood sugar uptake by suppressing insulin	Adrenal Cortex (Adrenal Gland)	Stress
Thyroid-Releasing Hormone (TRH)	Stimulates the release of thyroid-stimulation hormone (TSH)	Hypothalamus	Low metabolic rate
Thyroid-Stimulation Hormone (TSH)	Stimulates the thyroid to release thyroxine	Anterior Pituitary Gland	Low metabolic rate causing the release of TRH
Thyroxine (T4)	Regulates metabolic rate and influences physical development	Thyroid Gland	Low metabolic rate, release stimulated by TSH
Triiodothyronine (T3)	Regulates almost every physical process in the body, such as basal metabolic rate, growth and development, and heart rate.	Thyroid Gland	Release stimulated by TSH
Calcitonin	Reduces blood calcium	Thyroid Gland	An increase in calcium
Parathyroid Hormone (PTH)	Increases blood calcium and decreases phosphate levels	Parathyroid Glands	A low blood calcium level

Somatotropin (Growth Hormone)	Stimulates growth, cell reproduction, protein synthesis, and using fatty acids as fuel instead of glucose	Anterior Pituitary Gland	Fasting, growth spurts,
-------------------------------	---	--------------------------	-------------------------

Testosterone and Androsterone	Stimulates spermatogenesis, secondary sex characteristics, increases the secretion of body oils and the sex drive	Testes and Adrenal glands	Low testosterone levels (constantly being secreted)
Estrogen	Promotes secondary sex characteristics, accelerates metabolism, controls the menstrual cycle	Ovaries and Adrenal Glands	Low estrogen levels (constantly being secreted)
Progesterone	Regulate the inner lining of the uterus	Ovaries and Adrenal glands	Mainly during the menstrual cycle, but is always being secreted
Gonadotropin-Releasing Hormone (GnRH)	Stimulates the release of LH and FSH	Hypothalamus	Constantly release, but in females it varies during menstrual cycle.
Follicle-Stimulating Hormone (FSH)	Stimulates the growth of immature follicles in the ovary	Anterior Pituitary Gland	Greatest concentrations during the menstrual cycle
Luteinizing Hormone (LH)	In males: the production of	Anterior Pituitary Gland	Ovulation stage of the menstrual cycle

	testosterone In females: Triggering ovulation and the formation of the corpus luteum		
--	--	--	--