

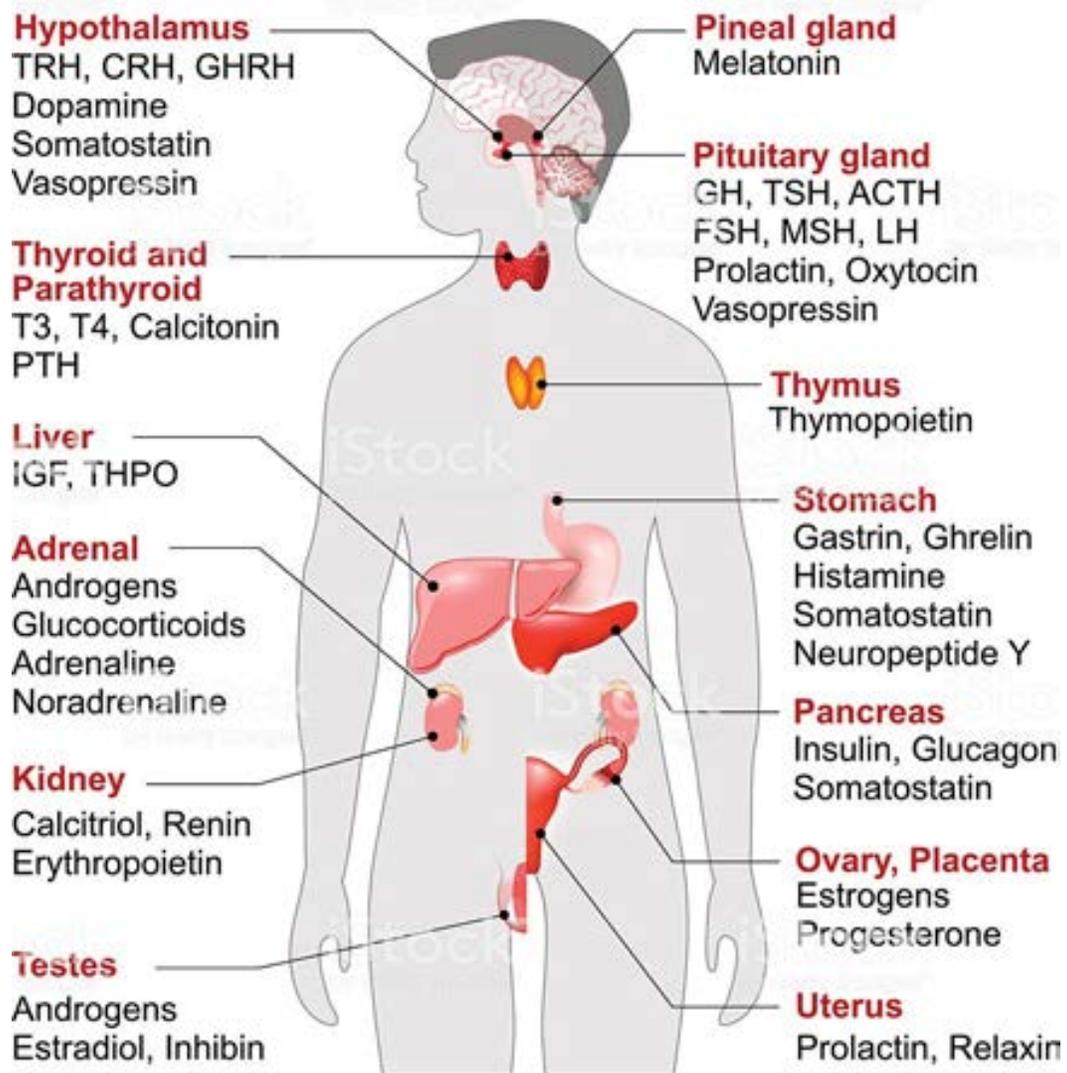
Hormones¹



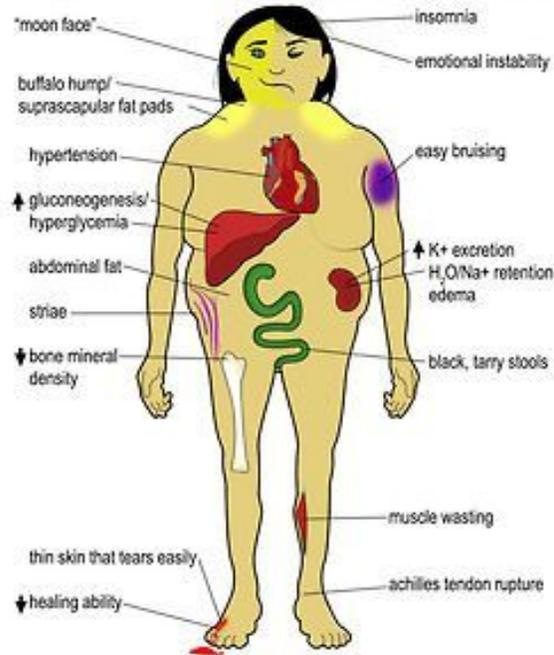
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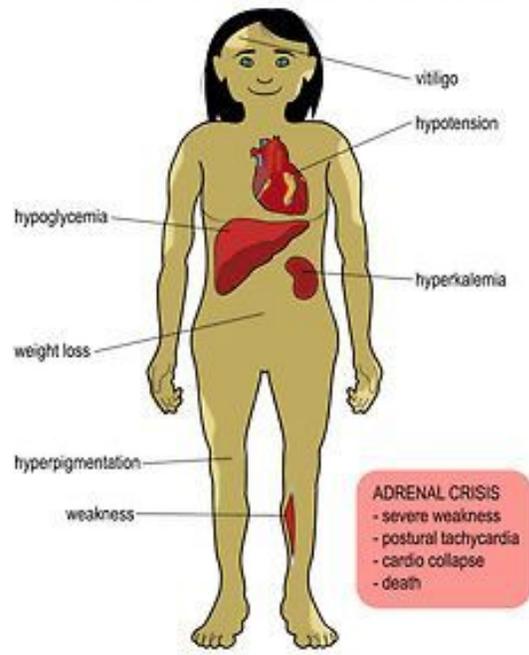
HORMONES



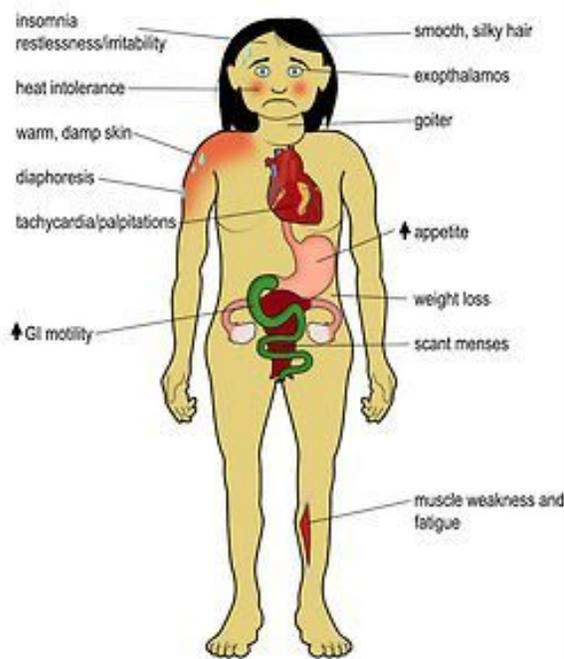
CUSHING'S SYNDROME | SIDE EFFECTS OF GLUCOCORTICOIDS



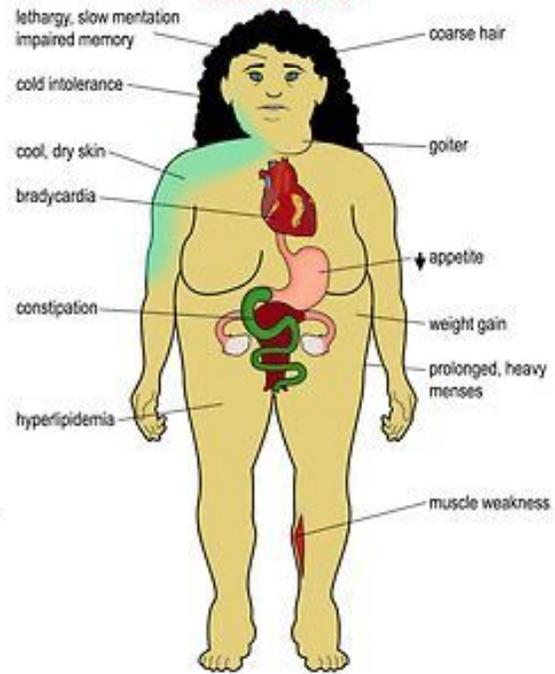
ADDISON'S DISEASE | LACK OF CORTICOSTEROIDS



GRAVES DISEASE | HYPERTHYROIDISM



HYPOTHYROIDISM

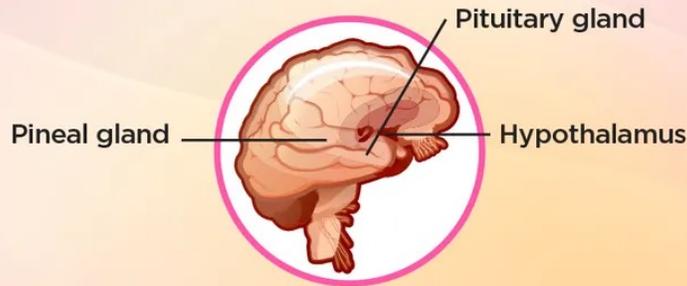


PITUITARY GLAND

Produces FSH, LH, TSH, oxytocin, and many other hormones, playing a central role in regulating when other endocrine organs produce and release hormones.

PINEAL GLAND

Produces melatonin and regulates circadian rhythms



HYPOTHALAMUS

Produces GnRH, TRH, and dopamine to regulate pituitary gland activity

THYMUS

Produces hormones that regulate T-cell development and immunity



Thymus



Thyroid

THYROID

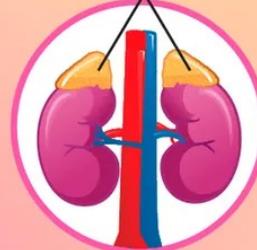
Produces T3 and T4 and controls metabolic processes

PANCREAS

Produces insulin and glucagon, regulating glucose metabolism



Pancreas



Adrenal glands

ADRENAL GLANDS

Produce cortisol, regulating metabolism and stress responses



Ovaries



Testes

GONADS

Produce androgens, estrogens, and progestogens involved in reproductive organ development, muscle and bone health, and secondary sex characteristics related to puberty.

GLAND	MAIN HORMONE RELEASED	EFFECT
Hypothalamus		Stimulates and controls the release of hormones from the pituitary gland.
Pituitary Gland (Master Gland)	Anterior - adrenocortical trophic hormone (ACTH)	Stimulates the adrenal cortex and the release of cortisol during the stress response.
	Posterior – oxytocin	Responsible for uterus contractions during childbirth.
Pineal Gland	Melatonin	Responsible for important biological rhythms, including the sleep-wake cycle.
Thyroid Gland	Thyroxine	Responsible for regulating metabolism .
Adrenal Gland	Adrenal medulla – adrenaline & noradrenaline	The key hormones in the fight or flight response.
	Adrenal cortex - cortisol	Stimulates the release of glucose to provide the body with energy, while suppressing the immune system.
Ovaries (female)	Oestrogen	Controls the regulation of the female reproductive system, including the menstrual cycle and pregnancy
Testes (male)	Testosterone	Responsible for the development of male sex characteristics during puberty, while also promoting muscle growth.