	Female: Stimulates graafian follicles to mature and secrete estrogen	characteristics Amenorrhea	Polycystic ovary Early epiphyseal closure
LH[†] *Target tissue:* Ovaries, testes	*Male:* Stimulates differentiation of Leydig cells, which secrete androgens, principally testosterone *Female:* Produces rupture of follicle with discharge of mature ovum; stimulates secretion of progesterone by corpus luteum	Hypogonadism Sterility Impotence Absence or loss of secondary sex characteristics Ovarian failure Eunuchism	Precocious puberty Primary gonadal failure Hirsutism Polycystic ovary Early epiphyseal closure
Prolactin (luteotropic hormone) *Target tissue:* Ovaries, breasts	Stimulates milk secretion Maintains corpus luteum and progesterone secretion during pregnancy	Inability to lactate Amenorrhea	Galactorrhea Functional hypogonadism
MSH *Target tissue:* Skin	Promotes pigmentation of skin	Diminished or absent skin pigmentation	Increased skin pigmentation
Neurohypophysis (Posterior Pituitary)			
ADH (vasopressin) *Target tissue:* Renal tubules	Acts on distal and collecting tubules, making them more permeable to water, thus increasing reabsorption and decreasing excretion of urine	DI	SIADH Fluid retention Hyponatremia
Oxytocin *Target tissue:* Uterus, breasts	Stimulates powerful contractions of uterus Causes ejection of milk from alveoli into breast ducts (letdown reflex)		
Thyroid			
THs: T_4 and T_3	Regulate metabolic rate; control rate of growth of body cells Especially important for growth of bones, teeth, and brain Promote mobilization of fats and gluconeogenesis	Hypothyroidism Myxedema Hashimoto thyroiditis General growth greatly reduced; extent dependent on age at which deficiency occurs Intellectual disability in infant	Exophthalmic goiter (Graves disease) Accelerated linear growth Early epiphyseal closure
Thyrocalcitonin	Regulates calcium and phosphorus metabolism Influences ossification and development of bone		
Parathyroid Glands			
PTH	Promotes calcium reabsorption from blood, bone, and intestines Promotes excretion of phosphorus in kidney tubules	Hypocalcemia (tetany)	Hypercalcemia (bone demineralization) Hypophosphatemia
Adrenal Cortex			
Mineralocorticoids	Stimulate renal tubules to	Adrenocortical	Electrolyte