

albumin	a protein made by the liver, important in hypoPARA as it attaches to serum calcium (see corrected calcium)
alkalosis	When a substance is too alkaline (the opposite of acidic). In the blood this can lead to hypocalcemia. An increase in pH, alkalosis, promotes increased protein binding, which decreases free calcium levels
autoimmune	a state in which the body produces an inappropriate immune response against its own tissues. There are autoimmune forms of hypoPARA
basal ganglia	a group of subcortical nuclei responsible primarily for motor control, as well as other roles such as motor learning, executive functions and behaviors, and emotions. When hypoPARA calcification of the basal ganglia is a concern, symptoms include clumsiness, unsteadiness, movement abnormalities, cramped muscles, tremors, depression, dementia
bone turnover	the process of existing bone being broken down to free up calcium and then new bone being built up to replace it and that bone becoming calcified. In hypoPARA patients bones don't turnover or turnover is decreased causing the opposite of osteoporosis, overly dense bones
calcilytic	over-reduces the effect of calcium sensing receptors; increases PTH function
calcimimetic	over-increases the effect calcium sensing receptors; reduces PTH function
calcitonin	the hormone responsible for decreasing levels of calcium in the blood
Calcitriol	a synthetic medication to replace active Vitamin D. ALSO see 1,25-dihydroxyvitamin D (1,25(OH) ₂ D
calcium	A mineral stored in the teeth and bones. Calcium is necessary for nerve function, muscle contraction, and elasticity of blood vessels. The calcium levels in the blood are regulated by calcitonin and parathyroid hormone
carbonate	"bound to carbon" - calcium carbonate is more alkaline and thus must be taken with food
CaSR	Calcium Sensing Receptor - in the parathyroid gland, the Calcium Sensing Receptor receives messages that tell the gland if there is not enough calcium in the blood (hypocalcemia), which then triggers the parathyroid gland to release parathyroid hormone
cataracts	a clouding of the lens of the eye that obstructs light. Hypocalcemia can cause deposits of calcium in the soft tissues that will lead to cataracts
Chvostek's sign	A spasm of the facial muscle triggered by tapping the cheek. A sign of hypocalcemia. Chvostek's sign is a form of tetany
citrate	"bound to citric acid" - calcium citrate is more acidic and does not need to be taken with food
comorbidity	More than one condition occurring simultaneously in one individual. E.g., having hypertension and hypoparathyroidism
corrected calcium	measured as calcium (mg/dL) + 0.8 x (4.0 - albumin(g/L))
DiGeorge syndrome	A condition resulting from a congenital deletion of a section of the 22nd chromosome. Part of the syndrome is an autoimmune hypoparathyroidism. Other aspects include cardiac abnormality, abnormal facial expression, thymic aplasia (underdeveloped thymus gland), cleft palate, and hypocalcemia ["CATCH 22"]
eGFR	(estimated Glomerular Filtration Rate) a blood test that estimates the kidneys ability to filter effectively

electrolytes	Substances vital to the conduction of electricity in the body, as in the brain. E.g., calcium, chloride, bicarbonate, sodium, potassium
elemental calcium	the amount of a calcium compound (such as carbonate or citrate) that is made of actual calcium
enamel hypoplasia	under formation of the enamel of teeth; seen as white spots, yellow spots or other deformities on the tooth
homeostasis	the body's directive to maintain a stable internal environment in the face of factors that would make it unstable
hormone	chemicals that coordinate different functions in your body by carrying messages through your blood to your organs, skin, muscles and other tissues
hyper	high or too much
hypo	low or too little
hypocalcemia	low levels of calcium in the blood
hypercalcemia	high levels of calcium in the blood
hypercalciuria	high levels of calcium in the urine
hypomagnesaemia	low levels of magnesium in the blood
hypomineralization idiopathic	insufficient mineralization; that is, not enough minerals supporting or hardening a structure such as tooth or bone relating to or denoting any disease or condition which arises spontaneously or for which the cause is unknown
ionized calcium	calcium in your blood that is not attached to proteins. It is also called free calcium. All cells need calcium in order to work.
laryngospasm	aprox. 50% of total serum calcium is protien bound, primarily to albumin, and only the free or ionized portion is biologically active
magnesium	Magnesium is a type of electrolyte. Electrolytes are electrically charged minerals that are responsible for many important functions and processes in your body. Your body needs magnesium to help your muscles, nerves, and heart work properly. Magnesium also helps control blood pressure and blood sugar.
malabsorption	difficulty in the digestion or absorption of nutrients from food
mcg	microgram
mg	milligram
nephrocalcinosis	generalized calcium deposits in the kidney
nephrolithiasis	also known as kidney stones or renal calculi
orphan product	drug designation by the FDA to a drug or biological product to prevent, diagnose or treat a rare disease or condition
osteopenia	a reduction in bone volume, below normal, but less severe than osteoporosis
osteoporosis	"porous bone" - a state in which bone is brittle or porous and thus more prone to fracture
parathyroid hormone (PTH)	regulates calcium levels in the blood, largely by increasing the levels when they are too low. It does this through its actions on the kidneys, bones and intestine
paresthesia	a burning or prickling sensation that is usually felt in the hands, arms, legs, or feet, but can also occur in other parts of the body. Is also sometimes described as tingling or numbness.
phosphates	necessary for the formation of bone and teeth. Can be found in food products listed as phosphoric acid.

phosphorus	a component of bones, teeth, DNA, and RNA . An essential mineral naturally found in foods and available as a dietary supplement
PTH 1-34	also known as teraperatide. An anabolic drug generally for the treatment of osteoporosis but sometimes used "off-label" for hypoPARA
PTH 1-84	also known at PTH, It acts to increase the concentration of calcium in the blood, whereas calcitonin (a hormone produced by the parafollicular cells of the thyroid gland) acts to decrease calcium concentration.
reabsorption	An action of the kidney that allows calcium to remain in the blood rather than be urinated out. Reabsorption is triggered by PTH
tetany	the involuntary contraction of muscles, usually resulting from imbalance of calcium, phosphorus or magnesium
Trousseau's sign	A cramping of the wrist/hand that occurs when the upper arm is compressed, as in when taking blood pressure. It is a sign of hypocalcemia or hypomagnesaemia
urinary calcium	amount of calcium in urine usually measured over 24 hours. Levels should be under 400mg. This is an indicator of kidney health
25-hydroxyvitamin D (25(OH)D)	This is the major circulating form of Vitamin D in your blood and considered the best indicator of Vit. D supply from sun exposure & nutritional intake
1,25-dihydroxyvitamin D (1,25(OH)2D)	Serum blood levels of this form of Vitamin D (also known as Calcitriol or active D) have little or no relationship to Vitamin D stores or intake, and are primarily regulated by PTH levels. Calcitriol stimulates the absorption of calcium in the intestines