

Ca homeostasis	
Storage	99% of body Ca is stored in bones
Agents	-PTH -teriparatides(synthetic PTH) -Vit D -calcitonin -affect: bones, renal & GIT

PTH	
Fun	- bones: Activates clasts in response to hypocalcemia - renal: Ca retention & forming the active vit D (calcitriol) - GIT: SI Ca abs.
Clinically	-if given intermittently (gapping the doses) it actually induces blasts & treats osteoporosis effectively (used in severe osteopor.) -we also use it if patient have failed to respond to other meds

Teriparatides (a med)	
Fun	ID to PTH
Administ	-SC (daily)
Ind	-postmenopausal -hypogonadal osteoporosis (in men, high risk of fractures)
Contraind	-bone tumors -paget disease -children -radio. Bone treatment -patients with renal stones risk
Side effects	-osteosarcoma -dia -heart pain -GIT disturbance -hypotension & headache -hypercalcemia (risk of renal stones)

Vit D	
Forms	-D2: ergocalciferol, present in food as sup (from diet: eggs, diary products & fish) -D3: cholecalciferol, present in food & meds as sup (from sun)
high conc	D2 is more toxic if high conc, D3 is more useful
Fun	- bones: clasts - GIT: abs of Ca & PO4, -inh PTH as negative FB - renal: dec excretion of Ca & PO4

calcitonin	
Effectiveness	So weak that placebo's have almost the same effect
Origin	Parafollicular cells
Releaser	Hypercalcemia
Fun	- bone: inh clasts - renal: dec Ca & PO4 retention
Ind	-osteoporosis -Hypercalcemia -paget disease
Adminst	SC & nasal spray (salmon)
Side effects	-nasua -local infl (at the site of inj) -headache -blushed face & hands -nasal irritation

