







# BLOOD CALCIUM CONTROL

[Stimulus]	RECEPTOR	CONTROL CENTER	EFFECTOR	[Response]
	AFFERENT 		EFFERENT 	
 <b>Ca<sup>++</sup></b>	Chemical Receptors of the <u>PARATHYROID</u>	PARATHYROID releases <b>PTH</b>	<b>BONE</b> (osteoclasts) <b>KIDNEY</b> (Reabsorption)	 <b>Ca<sup>++</sup></b>
 <b>Ca<sup>++</sup></b>	Chemical Receptors of the <u>THYROID</u>	THYROID releases <b>CALCITONIN</b>	<b>BONE</b> (osteoblasts) <b>KIDNEY</b> (excretion)	 <b>Ca<sup>++</sup></b>

GROWTH HORMONE (GH) - via the *Pituitary* gland stimulates osteoblasts

THYROXIN - via the *Thyroid* gland (follicle cells) works with GH

SEX HORMONES - (estrogens & androgens) also stimulate osteoblasts

CALCITRIOL - VIA the *Kidneys* promotes  $Ca^{++}/K^{+}$  ion absorption from GI