CALCIUM METABOLISM IN IGUANAS

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LIGHT

DIET

High Calcium/Low Phosphorous

Natural unfiltered sunlight or good full-spectrum UVR



SKIN

Vitamin D3 (cholecalciferol) is formed.

LIVER/KIDNEY

Convert D3 (cholecalciferol) to 1,25 Dihydroxycholecalciferol (active Vitamin D3) used in digestion, 1,25DHCC is necessary for the iguana to properly absorb calcium from digested food in the intestine

INTESTINE

Vitamin D3 effectively absorbs

diaested.

calcium from the food being

OSTEOCLASTS: Cells, stimulated by PTH, responsible for the demineralization of bone and the release of calcium into the blood.

OSTEOBLASTS: Cells, stimulated by (CT), responsible for resorption of calcium from blood and the production of bone.

BLOOD

Calcium is transported in a continuous process of increase and decrease based on blood calcium serum levels. Calcium is stored in the bone matrix

 When blood calcium levels decrease, the parathyroid gland secretes a hormone (PTH) which stimulates osteoclast activity and releases calcium from bone material into the blood.

 Once blood calcium levels return to normal, the thyroid gland secretes calcitonin (CT) a hormone which decreases osteoclast activity, thereby inhibiting the release of stored calcium from the bone. Increased osteoclast activity resorbs the calcium from the blood into the bone matrix

SOURCE INFORMATION: Iguana Times, Vol. 9 Num. 1-8.2. Calcium Metabolism In Iguanas, Bruce Bogoslavsky, DVM Animal Veterinary Hospital of Orlando FL32809 @ 2004 D. Giorgianni & Cyber-IG-info. All Rights Reserved. For personal Use only. All methods of reproduction are prohibited without prior written authorization.