



Metabolic Bone Disease/Calcium Deficiency In Captive Reptiles



Calcium is required by reptiles for normal muscle contraction, nerve function, and bone formation. Regulation of the body's calcium level is a complex process in reptiles and requires healthy organs, adequate nutrition, and optimal lighting. Calcium is usually obtained in an animal's diet by being absorbed through a healthy gut. Vitamin D, which is obtained in the diet and by ultraviolet lighting, is transformed in the liver and kidneys to a form of vitamin that helps assist with absorption of calcium in the gut. Phosphorus, a mineral also found in a proper diet, affects the metabolism of calcium and, if present in the proper proportion, it helps to optimize calcium absorption. Reptiles can become calcium deficient when there is a lack of calcium in the diet, improper amount of phosphorus in the diet, lack of vitamin D, lack of proper ultraviolet lighting, or disorders of their intestine, liver or kidneys. When there is an insufficient amount of calcium in the body, the body's response is to resorb bone to make up for the deficit; this is commonly called Metabolic Bone Disease. The resorption of bone commonly results in broken bones and soft shells. Calcium deficient reptiles may also be stunted in size and have muscle twitches. Treatment of Metabolic Bone Disease involves proper veterinary care, correcting the reptile's diet, supplementing calcium, providing appropriate ultraviolet lighting, and often supplementing vitamin D.