

# **Metabolic Bone Disease (Secondary Nutritional Hyperparathyroidism)**

*Information for the Pet Reptile Owner*

Metabolic Bone disease is a process where reptiles (usually iguanas) undergo a loss of calcium in their bones. This loss is stimulated by a diet deficient in calcium, no vitamin D<sub>3</sub> in the diet and by a lack of ultraviolet light. These calcium poor bones are easily fractured and have a rubber-like consistency.

## **Items required to prevent Metabolic Bone Disease**

◆ Calcium. Diets should be complete and balanced. One of the better diets on the market is made by Ziegler Brothers, Inc. of Pennsylvania. The Hospital carries it. This diet contains the right amount of calcium, phosphorus and vitamins to prevent metabolic bone disease. It is fed free choice and should compose 80 - 85 per cent of the iguana's diet.

◆ Vitamin D<sub>3</sub>. All reptiles need a source of vitamins to maintain a healthy body. In terms of metabolic bone disease, this vitamin is essential to allow the iguana to absorb calcium from the intestinal tract. Vitamin D<sub>3</sub> needs to be activated in the iguana's skin by ultraviolet light.

◆ Ultraviolet Light. Light of a certain wavelength is beneficial to reptiles. Grow lights (such as 'Vitalite®') provide these essential rays to the iguana's skin to allow the utilization of vitamin D<sub>3</sub>. Grow Lights have an

expected life of approximately six months; so replace them twice a year.

## **Signs of Metabolic Bone Disease**

Symptoms of metabolic bone disease include swellings in the thighs, jawbone, upper forelimbs or any deviations along the spine.

Low calcium levels can also cause muscle tremors, abdominal bloating, listlessness and anorexia. Because these pets are in a poor nutritional state, they may also have secondary infections such as mouth rot (infectious stomatitis).

## **Treatment**

The earlier the treatment can start the better. Treatment consists of proper nutrition, vitamin supplementation and proper lighting. It may take weeks before your pet is healthy again. We strongly recommend to begin a proper diet today. If you have any questions, please telephone the Hospital.



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