

# THE GREEN IGUANA IN CAPTIVITY

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Green iguana ownership can either be wonderfully rewarding, or difficult and frustrating, depending on whether the very specific needs of the iguana are met in its captive environment.

## DIET

Careful attention to iguana diet is a must! More iguanas develop health problems because of improper diet than from any other single cause. As stated previously, green iguanas are herbivores. To be more exact, iguanas are folivores, meaning the bulk of their natural diet is composed of leaves. Iguanas in the wild spend a large part of each day searching for and consuming their food. Iguanas in captivity also need to spend time eating as well. A diet too high in calorie-dense foods does not allow the iguana to spend enough time engaging in the activity of eating. The diet of the pet iguana should be balanced as follows:

### 1) Dark leafy greens 30-40% by volume

Choose as wide a variety as possible. Collard and mustard greens, kale, broccoli, escarole, spinach, swiss chard, parsley, and romaine are excellent choices, as are carrot and beet tops. Unsprayed dandelion leaves and flowers, and nasturtium and hibiscus blossoms from the yard are excellent additions. Avoid pale greens such as head lettuce & celery tops. Wash and chop all greens in appropriately size bites.

### 2) Bulk vegetables 30-40% by volume

Frozen vegetable mixes are excellent choices, as are peas, bean, carrots, beets, corn, and summer & winter squash. Sweet potatoes are a special favorite of most iguanas. Choose bulk vegetables that are fresh or frozen, not canned. Wash and chop all bulk vegetables into properly sized bites.

### 3) Fruits 10-20% by volume

Bananas, grapes, papaya, melon, strawberries, kiwi, mango, orange, peaches, pears, figs, etc. are all good choices. Wash and chop all fruits appropriately.

### 4) Calcium

Green iguanas in captivity have a high need for calcium that cannot be adequately met through diet alone. An iguana is almost certain to develop metabolic bone disease without calcium added to its food. To date there has not been enough research into iguana nutrition to know exactly how much these animals require, therefore, it is advisable to use a supplemental source of calcium several times weekly. There are several brands and formulations of calcium for reptiles currently available. Choose a supplement that is at least 30% calcium by weight, and contains no

phosphorous or vitamin D3. Phosphorous can bind calcium, making it unavailable to use, and dietary vitamin D3 has been implicated in kidney disease later in the iguana's life. Sprinkle the iguana's food lightly with calcium two to three times weekly.

Feed hatchling iguanas twice daily. Juveniles up to 24 inches long can be fed 5-7 times weekly, and adults can be fed three or four times per week. Choose the greatest variety from all the food groups that you can. It is advisable to chop all vegetables and fruits and stir them together in such a way that the iguana cannot pick and choose its favorite food items, unbalancing its diet. Make sure there is always a fresh clean source of water for drinking.

**A word of caution** - Many owners of iguanas have been told that it is acceptable and even advisable to feed some form of animal protein to their pets. Dog and cat food, trout chow, scrambled eggs, hamburger and insects are consumed with relish by many iguanas, but can be very dangerous to their health & longevity. There is mounting evidence that animal proteins are extremely damaging to the iguana's kidneys over time, because their bodies are simply not designed to excrete the large amounts of protein contained in these foods. Since iguanas can get all of the protein they need from the plant foods they eat, it is recommended that the iguana owner avoid feeding animal proteins entirely.

Numerous commercial iguana diets are currently available for sale. Because the exact nutritional requirements of the iguana are not known, there is no regulation regarding the formulation and sale of prepared diets, and not yardstick to measure their adequacy. If you choose to feed a commercial diet, it is recommended that you avoid formulas that contain animal proteins, and supplement the diet with 10-25% fresh foods.

## TEMPERATURE & LIGHT

The second most important requirement of the green iguana is temperature, and the second greatest cause of health problems in captive iguanas is improper temperature. Iguanas are tropical animals, and will fail to thrive at cooler room temperatures. The bacteria in the iguana's gut cannot digest its food in cool temperatures, and nutrients are poorly absorbed, thus cool iguanas will not eat. Iguanas are not able to resist infection well when they are too cool, and often develop abscesses or pockets of infection in their mouths and elsewhere. During the daytime, iguanas should be kept at 80-95 degrees Fahrenheit. Additionally, a "hot spot" or basking spot of 100-110 degrees is needed. The iguana will move from cooler to warmer places in its enclosure as needed, regulating its own body temperature. At night, the temperature can drop to 75 degrees. Use under-tank heating pads designed for reptiles, and overhead lighting as safe heat sources. Make sure overhead lights are out of reach. Avoid "hot rocks" as they are unreliable, and often the cause of burns. Placing two or more thermometers throughout the enclosure, and monitoring them regularly is the only sure way to know whether the temperature is within optimal limits.

Closely related to temperature is light. As stated previously, green iguanas in the wild spend a large part of each day basking in the sun. Ultraviolet rays from the sun are converted by the iguana's skin into vitamin D3, which is critical for normal metabolism of calcium. Every effort should be made to provide the captive iguana with opportunities to bask in natural sunlight. An added benefit to natural light is a faster growing animal with coloring that remains more vibrant. Because ultraviolet light cannot penetrate glass, placing the iguana in a wire cage outdoors when temperature and weather permit, is recommended. Make sure there is always a shady retreat available if the iguana becomes too warm. Iguanas cannot sweat, and overheating is a possibility in the summer sun. When sunlight is not an option, full spectrum fluorescent lighting such as a Vita-Lite should be provided. Place ultraviolet lighting no farther than 24 inches from the iguana, making sure there is no glass or plastic between. Leave ultraviolet light on for at least 10-13 hours per day. Iguanas need about 10 hours of darkness per night to sleep.

## **HOUSING**

Captive iguanas should be provided with the largest enclosure possible. Their phenomenal growth rate will quickly cause them to outgrow a 10 or 20 gallon aquarium. Most iguana owners eventually will need to build their own iguana habitat. Choose a design with solid sides to keep in the heat. Height is important to allow room for climbing. Provide several limbs and rocks for the iguana to climb. Replace them when they become too soiled to clean thoroughly. Avoid using live houseplants to decorate with, as they will quickly be consumed and some may be toxic. Newspaper and astroturf are the best choices for substrate. Other materials such as tree bark can harbor bacteria, and corn cob bedding and kitty litter are too dusty, and dry out the environment too much. The cage and furnishings should be periodically disinfected with a one to ten solution of bleach, then rinsed and thoroughly dried.

## **BATHING**

Iguanas love to soak in a tub of water. Because of the risk of salmonella, never allow your bet iguana to swim in the bathtub or kitchen sink. Instead, provide a bowl in its enclosure large enough to allow its whole body inside. Change the water daily, as many iguanas will also use their water bowl as a toilet. Daily spray misting in the morning is also recommended. It is thought that many captive iguanas may be chronically dehydrated.

## HEALTH CONCERNS

Iguanas that are unwell tend to exhibit similar symptoms for a variety of problems. Lethargy, lack of appetite, and sudden color changes are often observed when disease is present. Prompt medical treatment is advisable to diagnose and appropriately treat your pet.

Foremost among captive iguana health problems is **metabolic bone disease**. Although other causes exist, metabolic bone disease is usually caused by inadequate levels of calcium in the diet. The symptoms range from mild cases which exhibit lethargy and lack of appetite, through moderate cases which may have abscesses and fragile bones that fracture easily, to severe end stage cases with rubbery bones, spinal deformities and neurologic signs such as tremors and twitching of the extremities. Veterinary care is a must for animals with metabolic bone disease.

**Abscess** is another commonly seen problem. An abscess is a pocket of infected material that commonly develops in mouth and jaw areas, as well as on limbs and tails. Abscesses need to be opened and cleaned by a veterinarian and sometimes require antibiotic treatment as well.

**Kidney disease** is on the rise in captive iguanas. Iguanas with kidney disease are lethargic and do not eat well. Animal protein in the diet, and chronic dehydration may be factors in the development of kidney disease. Kidney disease is diagnosed by a blood test.

**Broken tails** are a common result of accidents such as falls, and owners trying to capture an escaped pet. Most tail stumps heal well on their own. Excessive bleeding may require a trip to the vet. Broken tails can regenerate, although often the new tail is not as colorful, and the tip may be more blunted. **Broken toes** are also frequent injuries. Broken toes also heal well on their own, although occasionally a splint will help the toe heal with better alignment.

**Nose rubbing** is a behavior that often causes injury to pet iguanas. Nose rubbing usually indicates that the iguana feels exposed or insecure in its enclosure. Providing more seclusion may help to stop this behavior, and allow the nose to heal.

**Nasal discharge** in excess of the usual salt discharge may indicate respiratory illness. Antibiotics are used to treat respiratory disease.

**Egg binding** is occasionally a problem with mature females. A lack of calcium causes soft eggs which the female is unable to lay. Spaying is often the only way to save the female's life.

**Aggression** in male iguanas that have reached sexual maturity is sometimes a problem. Neutering the aggressive male is sometimes necessary.