



CARING FOR YOUR CHINESE WATER DRAGON

GENERAL: Water dragons are medium sized lizards resembling small iguanas. Their moderate size, attractive appearance and good personalities have made them popular reptile pets. However their need of a partially aquatic habitat, strong heat and UV light requirements, complex diet, and tendencies for self mutilation make them one of the more challenging lizards to keep healthy in captivity.

FOOD: Dragons are mostly carnivorous and prefer live prey. Good dietary items include earthworms (nightcrawlers, not redworms or compost worms), slugs (not water snails), small live fish (fed in a shallow bowl of water to allow the lizard to catch them), pinkie mice, silkworms, and crickets or Dubia roaches. Mealworms, waxworms & goldfish are nutritionally poor and should be used sparingly. Feed the crickets & roaches a high calcium “gut loading” cricket diet (T-Rex Calcium Plus is the only product proven effective) for 2 days prior to using these insects as food, or they will be calcium deficient. Gut-loaded insects must be consumed within a few hours or they will eliminate the gut loading food. Healthy dragons will also eat some vegetables, especially leafy greens, including dandelions, kale, collards, mustard greens, green leaf lettuce, and papaya. Ideally use a nutritional guide to choose veggies with good calcium/phosphorous content.

Vitamins + minerals can be safely provided via a commercial food such as a bearded dragon or aquatic turtle pellet, which can be crushed or ground to a powder, then sprinkled on worms or vegetables. The pellets contain vitamins and minerals at low concentrations so overdosage is not a risk. Crushed food can be used daily as a supplement. Powdered vitamin supplements should be used *sparingly* if at all. Achieving a healthy balance with these supplements is difficult. Never mix products; use one balanced vitamin-mineral powder which contains many vitamins + calcium and phosphorous, and put a tiny pinch on the food once weekly, no more. Reptocal and Reptivite are 2 brands which offer balanced formulations. Overdosing is a potential problem with reptile supplements; it’s safer to use a ground-up reptile kibble as your vitamin & mineral source.

HOUSING: Try to duplicate natural conditions. Large terrariums are best.. The most important factors are heat & light. The ideal daytime air temperature is 80-92°F; temperature readings must be taken in the shade away from heat sources to be accurate. Below 80°F or above 100°F can cause stress and failure to thrive. Monitor cage temperature at several spots with good mercury, digital or dial type thermometers; avoid paper strip thermometers or temp guns which do not accurately read air temperature. Place thermometers at ground level, under a solid cardboard or wood shield, away from heat lamps. The terrarium can have a warmer side and a cooler side, but within the required temperature range. If the cage temperature is uniform then aim at 85°F as an ideal temperature. Do not let the temperature fall below 75°F at night. The cage sides and top should be mostly solid, not screen, in order to trap heat and humidity. A reptile heat pad placed under the terrarium is one heating method. Hot rocks provide heat but must be covered to prevent direct contact which may burn the lizard. Heat lamps are useful but must be at a safe distance to prevent burns (at least 18 inches usually). Heat lamps must *not* be bright if used at night; the best are lightless ceramic-coated lamps; dim purple or red coated night bulbs may also be used.

A spacious swimming area should be provided. Aquarium designs can be fancy with large landscaped pools and water filters similar to a fish tank. A simpler method uses a large plastic or steel water container that covers part of the cage bottom. The water container can be easily lifted out and the water changed without disrupting the dry part of the tank. Dragons will drink while swimming but also defecate in the water. Without a filter system the water should be changed daily to keep it clean.

Be sure your lizard can easily climb in and out of the water. The dragon should spend most of its time out of the water basking. Basking allows the pet to dry between baths, to warm its body, and to absorb UV light. Artificial turf makes good flooring for the dry area as it can be cleaned and reused, and it can't be eaten. Sand, gravel, corn cob, wood chips, etc may be eaten and cause bowel blockages; replace bedding when soiled.

Lighting requires special attention. You must provide both visible (white) light and ultraviolet light in the 280-320 nm spectrum (called UV-B). This mimics outdoor sunlight which dragons require. Our climate provides too little sunlight, and window glass or plexiglass filters out most of the sun's UV rays. Lack of proper lighting causes poor or picky appetites, poor growth, and bone disease. Provide correct lighting with a fluorescent "full spectrum" light. Reptisun (made by Zoo med) and Reptile D-Light provide strong UV levels; other brands include Reptile Daylight (Energy Savers Unlimited), Reptiglo, & Reptasun (by Flukers). These are all fluorescent tubes; in general no regular incandescent bulb produces good UV light. These lights have a limited effective lifespan and should be changed every 6-8 months when in use. A good day length is 12-14 hours of light. These lights won't cause burns, and they need to be close to the pet to be effective, usually closer than the length of the light bulb. (A 24 inch tube should be within 18 inches of the lizard to be effective). The bulb should run the entire length of the cage; bulbs smaller than 24 inches (including compact coils) are usually too weak to be effective. Avoid plastic or glass barriers between the light and the pet (these block UV). Minimize hiding from the light (such as in a dark cave); instead provide hiding shelter *behind* a plant or rock where the light is still strong, or cover part of the transparent cage wall with paper to allow hiding in that area.

Some screw type incandescent bulbs have appeared which *do* produce strong UV levels. These are mercury vapor lamps; they produce high UV output and heat, so must be kept at a safe distance (at least 18-24 inches away). They are best used for very large, tall cages, and should be replaced yearly. These usually cost \$45-\$100, and when shut off must have a "cool down" period before they can be turned back on. Other round bulbs which cost less and require no "cool down" cycle are simple light bulbs, and do *not* produce good UV output.

COMMON DISEASES:

Osteodystrophy (Rickets): A calcium deficiency usually due to poor diet and/or too little UV light. Symptoms include weakness, tremors, soft jaw, swollen or crooked legs. Treatment is via injectable or oral calcium, and correction of diet and lighting.

Limb fractures: Due to trauma, or secondary to soft bones (rickets). The limb is usually splinted. Correcting the diet and the lighting is critical.

Stomach or bowel blockage: Dragons may develop blockages from swallowing bedding such as bark chips or gravel. Small amounts may be passed with the aid of oral mineral oil. Severe cases may need surgery to remove the obstruction. Cool temperatures slow the bowel and increase risk of blockage or constipation.

Heat burns/skin infections: Unprotected hot rocks, heat pads or heat lights can cause burns. Burned skin often becomes infected. Seeking heat in cool cages increases risk of burns. Bacterial or fungal infection can also result from lying in contaminated water or on soiled flooring. Treatment: for mild infections, chlorhexidene or Betadine solution applied 2-3 times daily for 5-10 days may be adequate. For severe lesions, dead tissue may need surgical removal followed by injectable antibiotics. Correct the habitat also.

Mouthrot and respiratory infections: These are usually caused by normal bacteria which take advantage of a stressed or weakened dragon; underlying factors such as cool temperatures or imbalanced diets often play an important role in causing these illnesses. Mouthrot causes red swollen gums and sometimes odor or drooling. Respiratory infections can cause mucus discharge in the mouth or nose which may resemble mouthrot, but the gums are usually normal. Both diseases are treated with antibiotics and correction of diet and environment.

Intestinal parasites: Dragons can get a variety of parasites in their intestines, and also in their muscles. Diagnosis of intestinal parasites is done via examination of a fresh (within 24 hours) fecal sample. Treatment with appropriate medication, along with thorough cage cleaning, eliminates the bowel parasites.

Facial mutilation: Water dragons are very prone to banging or rubbing the front of the face on the walls of their enclosure; this can result in abrasions of the lips and nose, and in severe cases they can lose much of the face, becoming badly mutilated. Rough cage surfaces make the problem worse. The behavior may result from persistent escape attempts, or from attacking their own reflections in reflective surfaces such as glass. Self mutilation is reduced by providing a large spacious cage, and by making the bottom 5 or 6 inches of the cage walls non transparent and non reflective. Apply duct tape or other material to the inside of the cage walls around the bottom (*not* on the outside as this makes glass walls act like a mirror). This makes the wall appear solid and also prevents any reflections. Facial injuries may become infected and require antibiotics until healed.

Appetite loss: This often results from husbandry stresses (low temperatures, inadequate UV light, short day length, noise/disturbances around the cage, etc). Illness such as infection can also reduce appetite. Treatment includes correction of diet and environment, and treating disease if present.