

Reptile Housing

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Profile

Overview

- In a typical small animal clinic, standard housing should be available for most common captive reptile species.
- Hospital cages for reptiles will often be simpler than at-home enclosures (Figure 1).
- Cages should be modified to facilitate patient monitoring, handling, treatment, and hygiene, but must also promote and sustain normal behaviors with appropriate temperatures, light, and humidity.

Key Safety Practices

- Heating pads and ceramic heaters must be controlled by thermostats.
 - At least 50% of the cage should be outside of this heat zone.
 - The cooler part of the cage should be at least 15°F–20°F cooler than warmest part of the cage.
 - When operating <48 hours, temperatures should be checked hourly by infrared thermometer and adjustments made to prevent overheating or excessive cooling.
 - When operating >48 hours, temperatures should be checked at beginning and end of shifts.
- Electrical devices must be plugged into ground fault interrupting circuits to reduce the likelihood of electrocution of staff or patients if wiring or the device becomes wet.
- The hospital cage should be checked q1h.
- The patient should be weighed at least q24h.
- Without disturbing the patient, periodic checks for breathing movements should be made.
 - If movement is not detected, the cage should be opened slightly and the patient reassessed.
 - If there is still no movement, the patient should be touched to elicit response; dangerous reptiles should be manipulated with appropriate tools (eg, pole, snake hook).

Cleaning Practices

- Reptiles should be placed in small, secure, plastic ventilated containers while main enclosure is cleaned.
 - Substrate should be changed daily.
- The reptile's weight should be obtained.
- The reptile can be soaked in shallow lukewarm water for hydration after weighing.
 - This is effective for maintenance hydration and rehydration of mildly dehydrated reptiles.
 - Reptiles may drink during the soak; body scalation may use capillary action to direct fluids to the mouth and cloaca, where many reptiles absorb fluids.



1 Hospital cage for bearded dragon with two hide boxes, water bowl, basking platform, and heat tape beneath the aquarium.

Photographs courtesy of Arizona Exotic Animal Hospital, Mesa, Arizona

Cages should promote and sustain normal behaviors with appropriate temperatures, light, and humidity.

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- ❑ Some reptiles may need fluids administered PO, SC, or IV/IO to maintain hydration.
- Size and depth of the water bowl is dependent on reptile size.
- ❑ Lids from small plastic containers and caps from 20-mL or 60-mL syringes work well for reptiles weighing <30 g.
- ❑ Shallow, plastic, rock-shaped water bowls are available.
- ❑ Sturdy plastic bowls 2 oz–16 oz work well for larger lizards and snakes.
- ❑ Oil drain pans, dishwashing pans, and other items may be needed for large lizards and snakes.
- If indicated, treatments can be administered.
- Food consumption, feces production, and other necessary information should be recorded.
- The enclosure and nonporous furnishings should be sprayed with quaternary ammonium compound disinfectant, allowed to set for 15 minutes, and rinsed with fresh water.
- Other disinfectants (eg, ammonia for *Cryptosporidium* spp) may be ordered as indicated.
 - ❑ Common disinfectants used for dogs/cats are appropriate for reptile caging.
- After the tank has been refurbished, the reptile can return.
- Additional clean enclosures are helpful so that the reptile can

Standard housing should be available for common captive reptile species.

be quickly moved into a new cage instead of waiting for the original cage to be disinfected.

Basic Cage & Furnishings

Enclosures

- The type of cage depends on the size and escape abilities of the reptile (see **Types of Reptiles & Housing**).
- Common enclosures include:
 - ❑ Small plastic reptile cage with a secure, ventilated lid
 - ❑ Plastic shoe or sweater box with a secure lid
 - ❑ 10+ gallon aquarium with sliding and latching screen tops
 - ❑ Larger commercial reptile cages
- Open-top rack systems can be difficult to disinfect.

Substrates

- A paper towel moistened and dried completely is an appropriate substrate.
 - ❑ This is appropriate for all species, including desert species (eg, *Uromastyx* lizards), unless the patient has a skin condition (eg, dermatitis, wounds) exacerbated by moisture.
- Newspaper or brown roll paper may be better for larger reptiles.

Dark Plastic Containers

- Use of hide boxes can depend on reptile size.
- Separate boxes should be placed in the warm and cool ends of

Table Types of Reptiles & Housing

<i>Reptile</i>	<i>Escape Potential</i>	<i>Suggested Housing</i>
Small snakes (<5 mm diameter, <15 cm snout–vent length): baby corn snakes, baby king snakes	High	<ul style="list-style-type: none"> ■ Tight-fitting lid (eg, locking sweater box) ■ Form-fitted sliding screen-top cage
Small lizards: day geckos, anoles	High	<ul style="list-style-type: none"> ■ Form-fitted sliding door; door should be at front (rather than on top) of cage ■ Escapes usually caused by lizards running up the walls
Large snake (>30 mm diameter, >100 cm snout–vent length): adult boa constrictors, pine snakes, Burmese pythons	Moderate	<ul style="list-style-type: none"> ■ Cage with locking door and firm frames around door ■ Escapes usually caused by unlocked cage or unsecured door
Large lizards: adult iguanas, savannah monitors, black and white tegus	Moderate	<ul style="list-style-type: none"> ■ Cage with locking door and firm frames around door ■ Escapes usually caused by unlocked cage or unsecured door

the enclosure; an opening cut to the size of the reptile allows for movement.

- ❑ Commercial black plastic hide boxes are available.
- Hot soapy water should be used to clean away organic debris in dark plastic containers.
- ❑ Common disinfectants for dog and cat food/water bowls are appropriate.
- ❑ One ounce (30 mL) household bleach in 1 quart (about 1000 mL) hot water works well.
- ❑ Full-strength household ammonia (5%) should be used to disinfect items suspected of *Cryptosporidium* spp cyst contamination.



2 Plastic shoe box enclosures for Children's pythons. Heat tape and thermostat are visible.

Leopard Geckos, North American Colubrids, Small Boas, & Pythons

Heat

- One-third to one-half of the cage should be on top of heat tape with thermostat set to 35°C (Figure 2).

Light

- Access to a UVB light for 8–12 hours during the day may be beneficial for nocturnal lizards (eg, leopard geckos) with nutritional secondary hyperparathyroidism.
 - ❑ This will require a cage with appropriate top ventilation to allow transmission of UVB rays.
- These reptiles may benefit from a 12-hour photoperiod with a white light.

Diet

- For anorectic and underweight carnivores, a commercially available liquid diet such as Oxbow Carnivore Care (oxbowanimalhealth.com) or Emerald for Carnivores (emerald.com) is recommended.
- For omnivores, Emerald for Omnivores or Harrison's Recovery Formula (harrisonsbirdfoods.com) is recommended.
- For herbivores, Oxbow Critical Care or Emerald for Herbivores is recommended.

Leopard geckos

- Place 2–4 crickets or 2–4 mealworms per 20 g bodyweight (no earlier than 1 hour before turning off enclosure light) q1–3d, depending on BCS and activity level.
- Crickets and mealworms must be no larger than the distance between the reptile's eyes.
- Immediately before feeding, crickets or mealworms can be dusted with a multivitamin containing vitamin A, vitamin D₃, and calcium.

Some reptiles benefit from a 12-hour photoperiod with white light.

- ❑ One teaspoon of multivitamin can coat ≥ 3 dozen insects.
- ❑ Insects not eaten within 30 minutes have little multivitamin remaining and should be removed.
- Two soaked, coarse high-quality parrot pellets placed on the floor of cage will provide food for the crickets to prevent attacks to the lizard.

Snakes

- Snakes may not need to be fed during hospitalization and often should not be fed if on certain medications (ie, aminoglycoside nephrotoxicity may be potentiated by hyperuricemia that follows a meal).

Bearded Dragons & Diurnal Lizards

Basking Platform

- A plastic egg crate or light diffusers for fluorescent light fixtures can be cut into pieces that lay at an angle from the bottom of one side of the cage to the top of the opposite side of the cage underneath the basking light (Figure 3).

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3 Hospital cage for bearded dragon with hide boxes at the warm and cool ends, water pan at the cool end, and basking platform at warm end.

Heat

- One-third to one-half of the cage floor should be heated with a 60-watt ceramic heat element or 60-watt red incandescent spotlight to 37.8°C.
- A timer should operate the heating element at night.

Lighting Options

- Light should be placed on a timer (12 hours on, 12 hours off).
- Track light with MR-16 bulb (50 watt, unshielded; Figures 4 and 5).
 - A thermometer can ensure that hottest spot in center of beam is 37.8°C–40.6°C.



A track lighting system that uses MR-16 bulbs and associated light fixture.



The UVB filter must be removed for the MR-16 bulb to produce useful UVB lighting for reptiles.

- Must be placed within 12 inches of the reptile for UVB to be sufficient.
- Provides light, heat, and UVB in one lamp.
- Halogen vapor bulb (eg, Powersun, zoomed.com)
 - Cannot be placed closer than 24 inches from reptile.
 - A thermometer can ensure that hottest spot in center of beam is 37.8°C–40.6°C.
 - Provides light, heat, and UVB in one lamp.
- White incandescent basking light (60 watt)
 - A thermometer can ensure that hottest spot in center of beam is 37.8°C–40.6°C.
 - Use with 10.0 UVB fluorescent reptile bulb (eg, Reptisun Compact, zoomed.com).
 - Must be within 12–18 inches of reptile for UVB to be sufficient.

Diet

- For anorectic and underweight bearded dragons, a commercial liquid diet (eg, for adults, Emerald Omnivores; for juveniles, Emerald for Carnivores) is recommended.
- Bearded dragons may be fed an omnivorous diet.
- Place 2–4 crickets or 2–4 mealworms per 20 g bodyweight (no earlier than 1 hour before turning off enclosure light) q1–3d, depending on reptile BCS and activity.
- Dust with a multivitamin containing vitamin A, vitamin D₃, and calcium immediately before feeding.
- Food should be placed in the enclosure after the lights have been on for 1 hour.
- Crickets or mealworms should not be left in the enclosure overnight.
- Dark green leafy produce (dusted with a multivitamin and measuring approximately 2 × 2 inches/20 g bodyweight) can be offered daily. ■ **cb**

See Aids & Resources, back page, for references & suggested reading.

