Introduction to Chameleon Care

Melissa Magnuson, DVM • Alexandra Kilgore, DVM

Chameleons are highly specialized reptiles with unique environmental, dietary, and behavioral needs. While different species vary in their exact requirements, there are core husbandry principles that apply to all chameleons. This handout provides a general baseline for chameleon care, followed by a species comparison section highlighting important differences.

Chameleons are best suited for owners willing to research, monitor, and fine-tune husbandry. They are not beginner reptiles and do poorly when kept using generalized reptile care alone.

Housing

Veiled chameleons are arboreal, meaning they live primarily in trees and elevated spaces. Adults typically range from 10–18 inches in length.

Enclosure size

Minimum recommended enclosure size:

- 24” x 24” x 36” (W x L x H)
  Larger enclosures are always beneficial.

Enclosure type

Acceptable enclosure options include:

- Screen enclosures (excellent airflow, higher humidity management needed)
- Hybrid enclosures (balanced airflow and humidity retention)
- Glass enclosures (must have excellent ventilation)

Interior setup

Provide:

- Branches, cork bark, and vines for climbing
- Live plants such as pothos or philodendron for hiding and security
- Perches placed behind plants so the chameleon can retreat fully from view

A basking perch should be located:

- Approximately 10 inches below the heat source
- Heat bulbs should never be closer than 6–8 inches from the top of the casque while basking

Inadequate hiding areas cause stress, which can significantly impair immune function.

Substrate

Substrate is not necessary and is often discouraged due to bacterial growth in moist environments.
Recommended options:

- Bare bottom
- Paper towels
- Newspaper

These are easiest to clean and safest.

Social housing

Chameleons are not social animals.

- Do not house chameleons together
- Males are especially aggressive and will fight
- Males can be identified by tarsal spurs on the hind legs

Temperature and Lighting

Temperature

- Ambient daytime temperature: low to mid-70s°F
- Basking spot: 80–85°F
- Nighttime drop: 55–60°F is safe
- Do not use red or colored night bulbs

Suspend basking bulbs above the enclosure to prevent burns. Chameleons are excellent climbers and are at high risk for contact burns.

Use a dimmer to fine-tune heat output.

UVB lighting:

UVB is essential for calcium metabolism and bone health.

Recommended bulbs:

- Arcadia 6% if placed directly on the screen
- Arcadia 12% linear if suspended ~6 inches above enclosure

Bulb replacement:

- Compact bulbs: every 3–6 months
- Linear bulbs: every 8–10 months
  Replace regardless of visible light output.

Always use reliable thermometers. Infrared temperature guns are excellent for checking multiple zones.

Humidity and Hydration

- Daytime humidity: 40–50%
- Nighttime humidity: up to 80%

Hydration methods:

- Hand misting morning and evening
- Nighttime fogger or humidifier
- Dripper system during the day with a catch container below (empty and clean daily)

Chameleons drink water droplets, not standing water. They rarely use water bowls.

Dry climbing surfaces during the day are critical to prevent bacterial and fungal foot infections.

Diet

Chameleons in the wild eat vegetation and invertebrates. The key to long-term health is a varied, balanced diet.

Vegetation

Offer leafy dark greens:

- In a dish
- Hanging from a clip in the enclosure

Invertebrates

Primary feeder insects include:

- Crickets
- Roaches
- Silkworms
- Mealworms
- Black soldier fly larvae
- Occasional worms

All insects must be gut loaded.

Gut loading

Feed insects for 24 hours before offering:

- High-calcium greens (collard, mustard, endive)
- Vitamin A–rich vegetables (carrots, squash)

Commercial gut-load diets or enriched chicken feed may be used, but fresh produce is preferred.

Feeding schedule

- **Hatchlings/juveniles:**
  Feed daily, as much as they will eat (typically until 6–9 months, depending on growth rate)

- **Adults:**
  Feed every other day, offering 3–5 insects per feeding
  Insects should be no larger than the space between the eyes

Supplements

- Calcium without D3: dust at every feeding
- Calcium with D3: every 2 weeks
- Vitamin A: Repashy Vitamin A supplement every 2 weeks

Proper supplementation is critical for preventing metabolic bone disease.

Feeding tip

Container feeding is strongly recommended:

- Use a smooth-sided plastic cup or feeder dish
- Allows monitoring of intake
- Prevents insect escape
- Reduces stress

Chameleons are prone to overeating. Monitor body condition closely and avoid overfeeding to prevent obesity.

Handling

Chameleons stress easily and should be handled minimally.

Important notes:

- Provide constant access to hiding areas
- Avoid prolonged handling
- Sharp nails are normal and should not be trimmed
- “Coloring up” during handling indicates stress

Chameleons are best appreciated as display animals rather than hands-on pets.

Salmonella

All reptiles can carry salmonella, even when healthy.

- Always wash hands after handling
- Supervise children
- Extra caution for immunocompromised individuals

Medical problems

Most chameleon diseases result from:

- Dirty enclosures
- Poor diet or supplementation
- Inadequate temperatures

Diseases often develop slowly and may be advanced before signs are obvious.

Learn what is normal for your chameleon:

- Appetite
- Activity level
- Feces and urates
- Overall appearance

Seek veterinary care if changes persist beyond 1–2 days.

Emergency signs

- Bloody feces or urates
- Heavy or labored breathing
- Seizures
- Bloody discharge
- Lameness

Preventive care

- Annual physical examination
- Routine fecal testing for parasites (recommended for all chameleons)

Early detection is key, as signs of illness can be subtle.

Additional resources

- https://chameleonacademy.com/veiled-chameleon-care/
- http://www.exoticpetvet.com/veiled-chameleon-care.html

These guidelines are based on current veterinary research and captive care observations and will continue to evolve as new information becomes available.

Ferguson Zones:
Matching UVB to Your Reptile

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Zone 1: Crepuscular or Shade Dwellers

Very low UVB exposure

These species spend most of their time in shade, dense cover, or are active at dawn and dusk. They receive little direct sunlight in the wild.

Examples:

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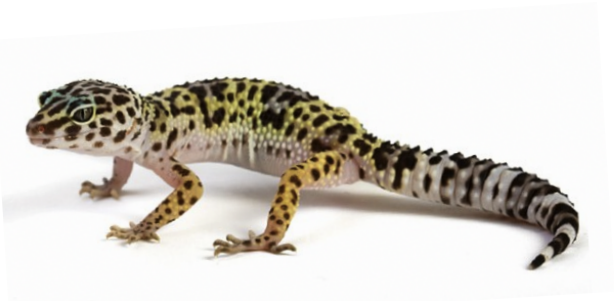
- Crested geckos
- Gargoyle geckos
- African fat-tailed geckos
- Corn snakes
- Ball pythons



Key point for owners:
These species still benefit from **low-level UVB**, but excessive UVB can be harmful.

Zone 2: Partial Sun or Occasional Baskers

Low to moderate UVB exposure

These reptiles move between shade and sunlight and bask intermittently rather than continuously.

Examples:

- (juveniles and non-dominant adults often fall here)
- Blue-tongue skinks
- Uromastyx (when not actively basking)
- Green anoles
- Some box turtles

Key point for owners:
UVB should be available, but animals must always have shaded areas to self-regulate exposure.

Zone 3: Open or Partial Sun Baskers

Moderate to high UVB exposure

These reptiles bask regularly and are adapted to brighter environments, but still retreat to shade.

Examples:

- Adult bearded dragons
- Veiled chameleons
- Panther chameleons
- Red-eared sliders and other basking aquatic turtles
- Spiny-tailed lizards

Key point for owners:
These species **require reliable UVB** to remain healthy and are at high risk for metabolic bone disease without it.

Zone 4: Full Sun Baskers

High UVB exposure

These reptiles live in very bright, open environments and bask for prolonged periods under intense sunlight.

Examples:

- Uromastyx species
- Desert tortoises
- Sulcata tortoises
- Rock agamas

Key point for owners:
Strong UVB is essential, but enclosure setup must still allow distance and shade to prevent overexposure.

Important Reminder for Clients

These zones are **general guidelines**, not rigid rules.
Factors that influence UVB needs include:

- Species
- Age
- Behavior
- Enclosure design
- Distance from the bulb
- Screen tops and materials

Always research species-specific needs before acquiring a reptile, and consult a veterinarian experienced in reptile medicine to confirm proper lighting for your individual pet.