

Chameleons



Chameleons are unique and intriguing lizards. While not low maintenance reptiles by any means, a small amount of research will prove the difference between a good care provider and an unsuccessful one.

A variety of chameleon species are available for purchase. Veiled chameleons have large casques on their heads. Jackson's chameleons are even more unique; the males have three "horns" protruding laterally from their heads. Panther chameleons sport no unique appendages, but do possess the vibrant colors, prehensile tail, and curious, mitten-like feet, which are all hallmarks of this interesting group of reptiles.

Before purchasing one of these endearing creatures, the buyer should be aware of many potential problems. Only captive-bred animals should be considered. Wild caught chameleons tend to be dehydrated and have a heavy parasitic load. Inadequate calcium levels due to improper lighting and/or diet result in metabolic bone disease.

Chameleons with this ailment may have a bowlegged stance, a curved back or swollen jaw, difficulty walking or climbing, and may even drag their rear limbs. Sunken eyes may indicate dehydration, while closed eyes during daylight are unusual, and may indicate general ill health. Dark, drab colors are a red flag for stress, illness, or an environment that is too cold. Cheesy material or a green color in the oral cavity means "mouth rot", a serious bacterial infection. In general,

chameleons do not like to be handled. If gentle restraint does not elicit a gaping mouth and hissing, the lizard is most likely unhealthy.



In making a purchase, adult animals should be overlooked, since chameleons are not known for their longevity. Even if a prospective chameleon appears healthy, it should be quarantined for 90 days. Routine fecal exams and prophylactic deworming will prevent the chance of a parasitic infection in a new chameleon or any with which it may come in contact.

Keeping in mind the various maladies to look for, a chameleon may be carefully chosen from either a reputable pet store or from a breeder. Breeders can be located through recommendation of a veterinarian, reptile shows, or magazines. Mail order chameleons should be avoided; not only can you not see what you are purchasing, but also shipping is often highly stressful for them.

Once your selection is made, the next step to owning a happy chameleon is proper housing. A ten-gallon aquarium with at least two ventilated sides is sufficient for a 1-3 month old animal. Chameleons grow quickly, however, and arboreal species will have a strong desire to climb in a more vertical enclosure with dimensions of at least 3x3x4ft. Cross ventilation should be maintained. A menagerie of branches should be provided with larger ones 10-12 inches from the basking and ultraviolet lights, (discussed later). Basking lights should be covered with a protective grid to prevent burning. Both lights should be adjacent to one another, at the top of the cage. Also situated at the top should be an IV dripset, which will slowly spill fresh

water onto the leaves of a plant below (Pothos is recommended). Excess water may be pooled in a small bowl mounted near the basking perch, and the chameleon may eventually learn to drink from this bowl. The entire environment should be misted daily to ensure proper humidity. Any plant introduced into the chameleon's environment should first be well rinsed, in the event of pesticide residue. Branches under plant leaves will provide hiding and sleeping areas. Although wood chips, moss, sand, and soil are popular and attractive substrates, they should not be used. Any of these may lead to an impaction if ingested and may harbor mites, molds, or bacteria. Instead, use butcher paper, newspaper or Astroturf, and disinfect regularly with bleach and water. Always wash hands well after handling the chameleon or the environment.

One of the most important parts of the chameleon's well being is proper heating and lighting, without which it will not digest foods nor metabolize nutrients properly. A spot bulb is usually best for a basking temperature of 90-105 F. Regular incandescent bulbs may be used as well, but some experimenting with varying wattages may be needed to produce the desired temperature. The light should be bright white during the day. At night, a nocturnal reptile light should be used instead. An UVB/A-producing fluorescent light is needed adjacent to the basking light. It is crucial that this light be provided, as it leads to the production of the active form of vitamin D3, without which the chameleon cannot properly use calcium. Replace the fluorescent light every 6-12 months, not when it burns out (their effectiveness diminishes with time). Human heating pads placed under the enclosure on a low setting provide ample warmth to the bottom of the vivarium. Ceramic heating elements, reptile heating pads, and heat tape are not recommended. Good reptile thermometers should help you achieve the proper temperature gradients. During the day, the ambient temperature should be 80-90 F; at night it should be in the 70's. Jackson's chameleons, which come from a mountainous region, may prefer these ranges to be slightly cooler.



The key to proper nutrition for a chameleon is adequate amounts of calcium. This may be achieved in many ways. While mainly insectivores, chameleons will munch on fresh collard or mustard greens, attached to the side of the enclosure with veggie clips. Crickets are the preferred snack, but are naturally too low in calcium for the chameleon. Their guts must first be loaded with calcium-rich nutrients, and the ingredients should vary from week to week. A good cycle to follow when feeding the crickets is:

Week one: collard greens, oranges, tropical fish food flakes.

Week two: mustard greens, crushed iguana pellets, melon.

Week three: crushed alfalfa pellets, carrots*, and high quality cat food.

(*cooked sweet potatoes and carrots are a good source of vitamin A, as well.)

Crickets may also be dusted with a supplement, but only one kind should be used at a time, to prevent overdosing. In addition to crickets, chameleons find [mealworms](#), [waxworms](#), nightcrawlers, pill bugs, cockroaches, and houseflies tasty. Make sure any insects you collect are pesticide-free. If offering food with forceps, use the blunt-ended kind!

Routine healthy reptile exams and fecals are recommended for monitoring long term health. Any decrease in appetite, lack of stool, any abnormal bumps or swellings to limbs or toes, or any discharge

from the eyes, mouth or vent should be evaluated by a veterinarian specializing in reptiles. Chameleons are a fragile exotic species, and are not recommended for the novice reptile owner. Never hesitate to contact your veterinarian with any questions you may have on chameleon health or husbandry.
