



Melissa Kaplan's Herp Care Collection

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Feeding Tips for Carnivorous Reptiles

While most carnivorous reptiles never exhibit any problems feeding, there are times when you may have a snake, lizard or chelonian who isn't interested in eating or the food being offered.

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First Things First

The most common reason for failure to feed is because the reptile isn't set up with the proper environment. "Environment" is the specifics of lighting, temperatures, humidity, furnishings, size, design and layout, and photoperiods. If any of these things are wrong for the species, it can cause reduction in appetite or a complete failure to feed.

The most common environmental problem is wrong temperatures, either too hot or too cold.

If you don't use a thermometer, use one. If you have a thermometer and it says that the temperatures are where they are supposed to be, get another thermometer and double check. Sometimes thermometers fail, or are less than accurate to begin with. If you have the self-adhesive type of thermometer commonly sold for reptiles, and have peeled it off and re-glued it to another place, that can destroy its accuracy. Heat-sensing "guns" can be used to check the heat at places difficult to place a thermometer, such as on a branch used for basking by an arboreal reptile, or rocky perch used by a desert lizard.

All of this assumes that you already know what the proper temperature gradients, and basking temperatures, are for your reptile. If you don't, find it out! Every species has different requirements. While they can be loosely grouped by habitat type (woodland, desert, wet tropical forest, temperate riparian, etc.), where they live in that habitat can affect temperature requirements, as can their lifestyle (nocturnal or diurnal). If you can't find species-specific information for that rare swift you have, research the requirements known for other species of swift and other lizards that live in the same places as they do, and compare what is known about yours (habitat type, lifestyle, habits, etc.) to what the known species require.

You need to provide heat in a way that is similar to how the reptile obtains and uses heat in its environment. Very few reptiles actually bask on hot rocks in the wild, so, despite the advertising of such products, [hot rocks](#) are appropriate for very few species of snakes and lizards, and not at all for chelonians. There is more information on the various products used for lighting and heating in the [Lighting and Heating](#) article.

Humidity is an important environmental - and health - factor.

If the environment is too dry, based on the species requirements, it will cause dehydration in the reptile. Dehydrated animals will reduce their food intake until they simply stop feeding. Forcing them to eat will only worsen the dehydration as the gut pulls fluids out of cells to try to get the food digested. Serious, even fatal, hypovolemic shock thus can be induced.

Information on rehydrating reptile can be found in the [Fluid and Fluid Therapy](#) article. Ways to increase the humidity levels in the enclosure or environment itself can be found in the [Microclimate](#) article.

Lizards and most chelonians require ultraviolet B (UVB) wavelengths in order to manufacture their own vitamin D3, which is a critical part of the calcium metabolism process. This is especially critical for herbivores or largely herbivorous reptiles, as well as diurnal insectivores.

The only safe ways to provide UVB for your reptiles is by giving them access to direct sunlight (not filtered through regular window glass or reptile/aquarium tank glass, or plastic) or by using a UVB-producing

fluorescent light made for this purpose for reptiles.

Plant and aquarium lights do not produce the UV wavelengths reptiles need to produce D3.

"Full-spectrum" lights may emit the full visible spectrum (many don't as they are "color corrected" to affect the colors you see, which affect the way your reptile's colors appears to you and your reptile's environment appears to the reptile), but they do not - cannot - produce UV.

UVB-producing fluorescents must be properly installed (no more than 18" from the reptile) and replaced at least annually. While there are several lights made for this purpose, not all produce enough UVB. See the articles on UV lighting at the [Captivity](#) page for more information.

Metal halide and mercury vapor lights are sometimes recommended for use with reptiles, promoted by the fact that they provide both heat and UV. Unfortunately, they provide such high levels of UV that they pose a health threat to both the reptiles and the humans who keep them. Some of these issues are discussed in the article on [Mercury Vapor products](#). Another thing to keep in mind is that, in the past, many of the people who use these types of lights kept them on for only a few minutes, or up to half an hour or so, a day. This may reduce the level of harmful radiation the reptile and keeper are exposed to, but it creates health problems and stress in the reptiles if they are not provided with other forms of heating and lighting for the rest of the day light hours to provide the thermal gradients and photoperiods they require..and at that point, you haven't saved any space, time, or money by using such a combination heat/UV product because you still have to use other heating and lighting sources.

The reptile's habits need to be provided for in an enclosure large enough to provide for all their needs (basking, lounging, feeding, sleeping, places for food and water, furnishings, and open space for moving around). For example, arboreal reptiles furnished with climbing apparatus, burrowing reptiles with something to burrow in, all reptiles provided with places to hide. More information on this can be found in [Reptile Housing: Size, Dimension and Lifestyle](#).

More information on identifying problems related to improper environment - physical and social - can be found in the [Signs of Illness & Stress](#) article.

The Food

All prey is not created equal. At the very least, there is the difference between vertebrate and invertebrate prey.

Fish, amphibians, reptiles, birds, and mammals are all included in the diets of the many carnivorous and omnivorous reptilian species. Some are generalists, feeding on many different types of prey, while others are specialists, feeding on a limited number of species of prey. Most reptiles feed in the wild only on living prey, though a few species are carrion eaters.

Research into the nutrient content of different prey animals indicates that there is little difference between them nutritionally when considering healthy, properly fed prey species. Thus, from a nutritional standpoint, converting a reptile from feeding upon one type of prey should be acceptable. Unfortunately, the reptile in question may not be so logical about these things, preferring instead to feed on its usual lizards, frogs, or snakes rather than switching to furry mice. Suggestions for scenting one prey with another are discussed in the [Hatchling Snakes](#) article; they should work equally well for carnivorous lizards

The size of prey fed to a reptile bears directly on the reptile's ability to catch, swallow and digest the prey. A rule of thumb for lizards is that the prey should be no larger than 2/3 the length of the reptile's head. For snakes, the rule is that prey be no wider at its widest point than the widest part of the snake's body. Feeding prey that is too large may result in regurgitation, injuries from swallowing and regurgitation, seizures, partial paralysis, gut impactions, even death.

One way to attempt to convert a non-rodent eater to feed on rodents is to scent the rodent with the reptile's preferred prey. A living or defrosted frozen lizard or frog (or other preferred food item) may be kept on hand to rub against the killed rodent just before offering it for feeding. This will transfer the scent of the preferred prey to the fur or skin of the rodent. Dangling the rodent from a pair of tongs or hemostats will create the illusion of

movement. Combined with the scent, this may entice and trick the reptile into feeding.

The reasons for feeding pre-killed rodent prey are discussed at length in the [Feeding Pre-killed Prey](#) article, as are tips for converting live feeders to pre-killed. Many reptiles become frightened of live prey, especially if they have been bitten before. With young snakes or lizards, the live prey may just be too active for them. Feeding pre-killed eliminates both the fear and the risk of injury.

Do not leave invertebrate prey, especially mealworms, kingworms, or crickets, in the enclosure with a reptile without also leaving food for the prey. If the reptile does not eat the invertebrates right away, they will soon get hungry and start feeding on whatever is available, which is usually the reptile. Many reptiles become so severely chewed up and stressed out by their prey that they require veterinary care; such reptiles, like snakes who have been attacked by rodents, can be very difficult to get self-feeding again. Another scenting trick is pithing. This involves piercing the braincase of the killed prey with a pin or nail before offering it to the reptile. Never leave live rodents in an enclosure with the reptile. Too many big boys have died or been permanently disfigured by [rodent attacks](#).

Something to try before pithing, however, is dipping the pre-killed prey into some warm chicken broth. This is especially effective in species whose wild diet includes birds. Canned chicken broth may be poured into ice cube trays and frozen, defrosting cubes as needed. Depending on the size and number of prey you need to dip at each feeding, you can use the trays for regular sized cubes or trays for miniature cubes. (Prominent snake breeders Dave and Tracy Barker discovered the efficacy of chicken broth.)

Some reptiles are sensitive to color, and have definite preferences for prey of certain colors. With rodents, this may mean brown or parti-colored mice rather than white mice (after all, there aren't a lot of white or albino mice in the wild, as they tend to not survive long enough to pass on their color genes). This color preference may extend to insect-eaters as well. Adding powdered spirulina or alfalfa to the food-and-vitamin mix fed to crickets will turn them green, making them more acceptable to reptiles who typically eat green insects in the wild. (Chameleon keeper Alon Coppens discovered this when he ran out of naturally green insects for his picky Nosy Be *C. pardalis*.)

Serving Food

Care must be taken not only in the type and size of food selected for feeding, but in the presentation of the food as well. Proper presentation not only makes food attractive to the reptile, which will help stimulate feeding, but will ensure that the food can be safely consumed.

A plate of some sort must be used when the reptile is kept on a substrate of soil, shavings or other particulate matter. This will prevent the unnecessary uptake and accidental ingestion of the substrate itself. While there is nothing to prevent this from occurring in the wild, captivity is not the wild. We are still ignorant about what factors or organisms that may prevent impactions in the wild that are missing in the captive environment.

An alternative is to remove the reptile from its enclosure and place it in a special enclosure reserved for feeding. Separate feeding enclosures will be required when two or more snakes are housed together. Keeping and feeding them in the same enclosure may well result in fewer snakes as one snake eats the other merely because it smells like prey, or when both have tried to eat the same prey animal. Separation may also be required when housing two or more lizards or chelonians together when one of them is unable to compete successfully with the others for access to enough food.

Plant foods should be thoroughly mixed together to prevent the reptile from picking out only certain plants and leaving the rest. Captive diets consisting of just one or two plants is not nutritious and will result in nutritional deficiency disorders.

Carnivores

Rodents/Birds/Reptiles/Amphibians: Using a forceps (hemostats) or kitchen tongs, grasp the prey by the base of the tail and dangle it for the reptile. You may find that "walking" it around a bit will better simulate the movement of a live prey animal and thus better trigger a feeding strike.

Fish: Let the fish swim in the water bowl or special feeding bowl, large enough for the aquatic turtle, or semi-aquatic lizard, snake or turtle to get into and swim to catch its prey.

Worms/Larvae: Individual worms or larva may be held in forceps to introduce the prey to the reptile. A meal's worth of worms or larvae may be placed in a shallow bowl or saucer, enabling the reptile to get in but preventing the worms from escaping. Leave some of the food being fed to the worms in the bowl so that they have something to feed on if they are themselves not eaten right away.

Crickets: Crickets may be set loose in the enclosure for most reptiles. For turtles, they may need to be held with forceps. On a daily basis, check under furnishings, branches, and potted plants to get the crickets who have hidden back out into the open again. Put some of the food being fed to the crickets in their own enclosure into the reptile's enclosure so that the crickets have something to feed on if they themselves are not eaten right away. A piece of fruit placed in a jar lid will provide the crickets with an easily accessible source of moisture. A rock should be placed in the reptile's water bowl so that if crickets jump into the water they will be able to climb out onto the rock and jump free and thus escape drowning.

Omnivores

Terrestrial feeders: The plant food may be placed in a shallow bowl, jar lid, or saucer. Offer vertebrate prey as indicated above. Worms, larvae, and killed vertebrate prey may be placed on top of the plant food, mixed into it, or offered separately.

Aquatic feeders: The leafy greens may be floated on the water. If turtle food sticks or pellets are being offered to aquatic turtles, they may be floated on the water as well.

Feeding Time

When the food is offered will also affect feeding and metabolism. Failure to proffer the right food at the right time, and in the right way, may well result in malnutrition or starvation.

Some species feed at night. Others will easily take food around sunset but will not feed during daylight hours. Still others will only eat during the day. Offering food outside the optimal feeding times for the species may result in reduced intake or failure to feed.

Some reptiles may be unwilling to feed when they are being watched by other animals, including humans. Still others will compete so fiercely with other cagemates for food that injuries may occur or the cagemates may themselves become reluctant to feed and so slowly starve to death. Thus, observation of captive species must be done carefully so as not to stress, or alter the behavior of, the animals being watched.

Feeding frequency may also lead to nutritional problems. Some hatchling lizards and small adult lizards need to feed several times a day. Other lizards may feed comfortably once a day or once every other day. The feeding frequency may change throughout the year due to breeding season or coinciding with natural cycles found in the animal's native habitat, such as the dry or wet seasons, cool winters, hot summers, or breeding season.

Wash your hands with hot, soapy water, rinse thoroughly, and finish off with cold water. This will remove the scent of other animals - predator and prey - from your hands and give your hands a cooler thermal signature than the prey you are offering (by tongs or forceps, please) to reptiles who use heat sensing to locate prey.

Feeding Frequency

There are no cut-and-dried rules on feeding reptiles. Each species will have its own requirements. Feeding amounts and frequency are based as much on the reptile's evolved dietary needs and metabolic size as it is on its being maintained in a proper environment.

Generally speaking, smaller reptiles need to eat more frequently than larger reptiles; younger reptiles more often than older ones; insectivores more frequently than vertebrate eaters; and herbivores more frequently than omnivores or carnivores. Most young lizards and herbivorous reptiles will need to eat every day, whereas young snakes may eat twice a week. Sick reptiles, or those preparing for breeding, may need to eat more or more often than healthy adult reptiles not in breeding season. Reptiles tend to eat more during the seasons that coincide with the highest food availability in their native habitat (generally corresponding to our spring and summer months) than during the cold or dry seasons.

A reptile who acts hungry probably is. "Acting hungry" may include such behaviors as instantly coming alert, head raised, and, in snakes and some lizards, active tongue flicking, when the caretaker approaches the

enclosure. Caretakers being struck or bitten by an otherwise tame and calm snake or lizard when they put their hands in or near the enclosure is another sure sign. Except for certain gorge feeders (such as savannah monitors and Burmese pythons), a reptile maintained in a proper environment, who gets plenty of exercise, and is fed a healthy diet, is difficult to overfeed. If they are not hungry, they will not eat.

Commercial Foods

Commercial reptile foods (dried, broth-flavored insects, "sausages", frozen, canned and dried foods) sound like the perfect answer to what to feed your lizard, snake or chelonian. The only problem is that, despite packaging, advertising, and pet store claims, except for some of the aquatic turtle foods, these food products were not longitudinally tested and many are proving to be less nutritionally "complete" and "balanced" as claimed. Reptile keepers and veterinarians are finding that animals maintained on many of these foods exhibit developmental abnormalities (growing too fast or too slow) and nutritional deficiencies such as metabolic bone disease. It is best to not consider these as suitable substitutes for whole prey or fresh plant diets. For more information, see the [Evaluating Commercial Diets](#) and related articles in the [Food & Feeding](#) page..

Feeding Neonates

Snakes

Feeding baby snakes may present some unique problems. Captive bred snakes remain genetically programmed to recognize certain scents and shapes as being "food." When those shapes and smells don't materialize, they may be reluctant to feed.

Most baby snakes do not feed for the first several weeks after hatching as they are still living off the remains of their yolk which is retained inside their bodies; this takes about 10-20 days. In the wild this time would be spent finding water, basking, sleeping, and hiding spots, and generally learning about its environment. Only after the first shed or two, anywhere from 2-4 weeks after hatching/birth, will they start looking for food.

In captivity, they may often be started on rodent prey, specifically pinky mice, causing them to imprint on the prey and so become willing feeders on at least that species of rodent for the duration of its life.

Methods to help them start feeding on proffered food items, besides ensuring they have a properly set up and furnished environment, are discussed above and in the articles referenced below.

Chelonians

Aquatic turtle hatchlings will often begin to feed in small containers, with water deep enough for them to swim and dive and equipped with a haul-out place. Wriggling insects, such as pinhead crickets, moving on the surface of the water will attract the hatchlings' attention and stimulate the feeding response. Once they are feeding easily and heartily, they can be fed in their regular enclosure. If feeding many hatchlings, care must be taken to not overcrowd the feeding enclosures. If they are being fed in their regular enclosure, some should be removed to one or more separate feeding enclosures. Care must be taken to watch them carefully to see if any are not able to compete successfully for the food.

Terrestrial turtles are omnivorous. A selection of finely chopped or shredded plant food can be placed in a feeding container or in a substrate-free area of their enclosure. The prey arthropods may be mixed in with the plant matter or placed on top of it. Mixing the prey with the plant matter is a good way to get them started eating the plant matter.

Tortoises are grazers and should be offered a variety of vegetables and leafy greens as well as drier roughage for foraging. The chopped vegetable and leafy greens should be set out on a jar lid or other flat surface, enabling the small tortoises to easily climb on and forage in the midst of the food. They may be kept on a mixed bedding of alfalfa and timothy hays. This will give them traction to walk on (unlike alfalfa pellets), and is easily moved about so that it may be burrowed under. Since tortoises will try to eat everything, no wood, paper, gravel, or other substrates should be used, nor should Styrofoam-type plates be used to as a feeding plate.

Lizards

Carnivorous lizards should be separated at meal time to reduce aggressive competition for food. Depending upon the individual lizard's prowess, some may need to be placed in smaller containers to restrict the

movement of their prey. Insectivores should be offered a variety of prey items to maximize nutrient intake.

Herbivorous lizards may also need to be separated to reduce feeding competition. As with neonate tortoises, shallow serving platters should be used to enable easy access and foraging in the food.

Omnivorous lizards may need to be separated for feeding if they are not able to compete successfully with cagemates. They may be fed in a manner similar to omnivorous box turtles, with their animal prey mixed into their plant matter. In addition, crickets should be offered to them either in their enclosure or in smaller feeding containers to ensure they are able to catch them.

When All Else Fails

If your reptile has non-feeding long enough so that it starts to visibly lose weight/mass, you need to get your reptile checked by a [reptile veterinarian](#). Just because they can go a long time without feeding doesn't mean they should. While there is nothing to worry about if your hatchling doesn't feed until after its first or second shed, or your adult isn't eating during breeding season, or your carnivore of any age isn't interested in food during pre-shed and [shedding](#), an apparently healthy reptile whose environmental needs are being met and who is being offered appropriate prey in the appropriate way but who still won't eat has a problem. Systemic infections, heavy loads of internal parasites, [boit infection body disease](#), congenital deformities, gut obstructions, and more can cause inappetance or inability to feed.

If force-feeding is necessary, don't shove a whole prey down its throat. That is highly stressful (for you and the reptile) and may end up burning more calories than you are shoving in. More information on force-feeding can be found in the [Emaciation \(Starvation\) Protocol](#) article.