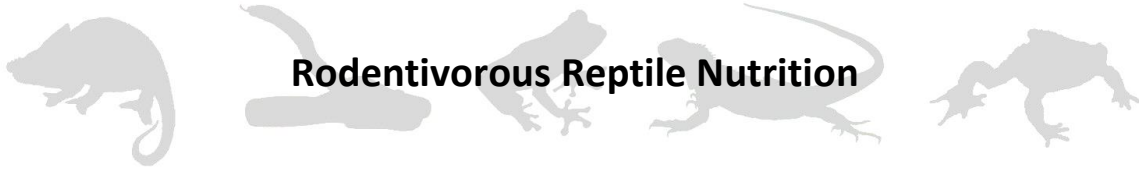


Companion Animal Hospital Exotic Animal Care



Rodentivorous Reptile Nutrition

Rodentivores are a subset of carnivores that specialize in eating rodents. Many companion reptiles, including most commonly kept snakes, are rodentivores or are best maintained on a rodent diet in captivity.

1. Selecting healthy prey

Healthy prey leads to a healthy predator! Rodents that are fed to your reptile should be healthy. Their fur should be clean, they should not have a foul odour, and their eyes and ears should be clear of any discharge.

Rodents should be of a good body condition score. Feeding underweight or malnourished rodents may lead to nutritional deficiencies in your reptile, just as feeding overweight or obese prey will lead to an obese predator and other nutritional deficiencies. Supplementation with calcium or multivitamins is not necessary as long as the prey is healthy, with the exception of feeding neonatal (“pinkie”) mice and rats. “Pinkies” are naturally lower in calcium, so a calcium supplement is necessary on these meals to ensure that no deficiency in calcium occurs. It is a commonly propagated myth that pinkies that have just nursed are higher in calcium (and as such, have a stomach full of milk which is visible through their translucent skin): This is not true, they still require calcium supplementation.

Please use the following diagram to assess rodent body condition (Foltz 1999):



BC 1

- Mouse is emaciated.
- *Skeletal structure extremely prominent; little or no flesh cover.*
 - *Vertebrae distinctly segmented.*



BC 2

- Mouse is underconditioned.
- *Segmentation of vertebral column evident.*
 - *Dorsal pelvic bones are readily palpable.*



BC 3

- Mouse is well-conditioned.
- *Vertebrae and dorsal pelvis not prominent; palpable with slight pressure.*



BC 4

- Mouse is overconditioned.
- *Spine is a continuous column.*
 - *Vertebrae palpable only with firm pressure.*



BC 5

- Mouse is obese.
- *Mouse is smooth and bulky.*
 - *Bone structure disappears under flesh and subcutaneous fat.*

A "+" or a "-" can be added to the body condition score if additional increments are necessary (i.e. ...2+, 2, 2-...)

2. Safety practices

Rodents should be offered during the reptile's activity period, so nocturnal snakes should be fed at night, and diurnal snakes should be fed during the day. This is to avoid leaving a deceased rodent spoil in the cage, which is unsanitary and if eaten may cause some digestive upset.

Always wash your hands thoroughly after handling rodents. Snakes sometimes get excited about the scent of prey and will bite a human hand that smells like prey before waiting to see if it is actually a meal. Rodents that are being offered to a snake should always be held in a tool such as tongs, forceps, or hemostats to avoid biting accidents.

We strongly recommend feeding your snake outside of the enclosure, in a separate feeding bin. This can be a plastic storage container with a tight-fitting or locking lid. The snake may be placed in the food container, and the rodent then offered with a pair of tongs, forceps, or hemostats. The snake is then allowed to eat its prey, and can be moved back to its enclosure after it has finished. There are a number of reasons why this feeding method is advantageous:

- The snake will not learn the association that the enclosure opening means that food is coming: A common complaint among people who keep snakes is that they are attacked as soon as the enclosure is opened. Often, this is a habit formed by feeding the snake in the enclosure—snakes will quickly learn where food comes from, and if they're hungry, they may not wait to see if it is your hand or a rodent coming into the enclosure.
- Accidental ingestion of substrate is avoided: If you are using a "loose" or particulate substrate (sand, moss, wood shavings, etc.), pieces of substrate may get stuck to the rodent and be eaten accidentally. Problems such as gastrointestinal impaction, gastrointestinal perforation, or even stomatitis (oral infection) can occur from pieces of substrate getting stuck in the wrong place.
- Nervous or shy snakes that do not eat in the enclosure may be more inclined to eat when confined to a feeding container with their prey. The reason for this is not known, although a common theory is that this simulates the snake entering a rodent burrow, where their meal can be found.

Frozen rodents should be stored in an airtight container, such as a zipper lock freezer bag, and for no more than 3-6 months to preserve freshness. Some snakes will not accept rodents that have been "freezer-burned."

The safest method for thawing frozen rodents is to leave them in the fridge overnight, as this has been demonstrated to reduce bacterial growth. Prior to feeding, soak the rodent in a warm-water bath to make the prey more appealing (many snake species rely on detecting body heat as well as the smell of the prey to identify it). Please ensure that the water is comfortable to the touch and not hot enough to burn, as this may cause serious burns in the oral cavity and esophagus of the snake.

Prey that is uneaten is ideally discarded and should not be “recycled,” either by giving it to another animal in the home (this can contribute to parasite transmission between enclosures), or by re-freezing it (to reduce the chance of the meal spoiling).

3. Live or pre-killed?

This is a popular debate among reptile-keepers: Do you feed live prey that provides a “hunting” experience, or pre-killed prey? In truth, pre-killed prey is much safer, and it does not deny the reptile environmental enrichment contrary to popular belief. While nobody is pre-killing prey for wild snakes, these animals are in our care and not in the wild. Like with all aspects of caring for pet reptiles, we want to reduce incidence of health problems and allow them to live long, healthy lives.

In the wild (and in captivity), snakes are predominantly ambush predators: As they lack arms and legs, they rely on stealthy camouflage and the element of surprise when stalking prey. Placing a live, fearful rodent into a small and restricted enclosure may result in serious injury. Rodents can be quite vicious when defending themselves, and a hyperactive, frightened mouse or rat bouncing around a reptile enclosure may actually scare a snake into not wanting to eat.

Rodents are capable of causing serious damage to a snake that does not want to eat, whatever the reason for inappetence may be. Rodents tend to gnaw along the head and back of snakes, and damage to eyes and the spine are not uncommon. Bites to the spine may commonly develop meningitis. When a snake is attacked by a predator (or its prey-turned-predator), their first defense is often to freeze and hope that whatever is attacking them leaves them alone. Snakes prefer to flee rather than fight, and if there is no opportunity to get away from the attacking rodent then the consequences are often serious. If you choose to feed live prey to your snake, never leave the live rodent unattended with your pet snake to help avoid these complications.

Another concern is that allowing the rodent to be “stalked” in a restricted enclosure by a predator can be considered inhumane. As reptile-keepers often do not have public opinion on their side, this is an important aspect to consider for the public image of the hobby. Feeding humanely euthanized rodents is more ethical than allowing a frightened animal to be stalked and slowly killed by its predator.

4. Transitioning to pre-killed prey

Most snakes that are eating live prey can be transitioned easily to pre-killed prey. There are a number of steps to try:

- Often, using a feeding container alone will convince snakes to eat pre-killed prey.
- Ensure that the pre-killed rodent has been warmed. Soaking the rodent in a warm-water bath is very effective, but ensure that the water is comfortable to the touch and not hot

enough to burn (this may cause serious burns in the oral cavity and esophagus of the snake).

- Offering the rodent on tongs and “jiggling” it will often attract a snake’s attention. Hold the rodent around the hips and not the tail to give it a more natural movement.
- Making a small tear in the rodent’s skin to expose blood or organs can stimulate some snakes into feeding.

We do not recommend “force-feeding” rodents to snakes or restricting access to water to stimulate feeding without veterinary supervision. While these techniques are commonly recommended on the Internet, in an anorectic snake serious complications such as skin tears and dehydration can occur.