Safety Concerns for Reptiles: 8 Dangers

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Once allowed out of his enclosure, a reptile or amphibian can easily get into trouble, and most of that is beyond the scope of this article. But even inside his own environment, there are many things that can go wrong and that can quickly become life-threatening for your herp. Prevention is always the best way to manage such problems, and setting up your environment properly can go a long way toward ensuring that you and your herp will continue to have a healthy, happy relationship. In the unfortunate event that your herp does encounter a toxic substance, the National Animal Poison Control Center's 24-hour hotline number is 1-888-4ANI-HELP (1-888-426-4435). There is a $65.00 charge for each case, but it just may save your herp's life.

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1. Cage or Enclosure Environment

Safety and size are the first considerations. You need to make certain that the enclosure is escape-proof but adequately ventilated and large enough for the animal to move around and grow within it. As a rule of thumb, for every 1 foot of animal you should estimate 1-1/2 square feet of floor space, but this will vary dramatically from animal to animal and species to species. Iguanas, for example, require far more room than snakes.

Be certain that there are no sharp objects or corners upon which your herp can damage himself. You also need to be wary of toxic materials, so be certain that the enclosure is thoroughly free of chemical residue from the manufacturer and shipping container. You will also want to be certain that the cage will be easy to clean and maintain. Be sure the cleansers and detergents you are using leave no chemical residue.

Aquariums with screen or pegboard tops make good cages, as do specially designed fiberglass

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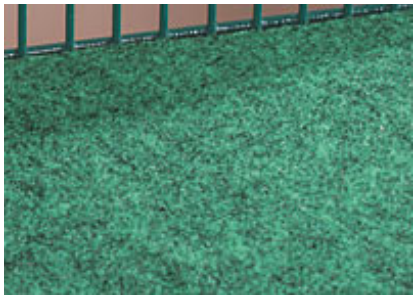

cages, which are available in lengths of up to four feet. You can also make your own or have one custom-made by having glass cut to order and assembling it using silicon adhesive. If you use a screen cover, be certain to observe your pet carefully. The mesh can cause damage to your herp's skin if he repeatedly rubs against it, and some mesh can also contain heavy metals. Copper, lead, zinc, magnesium, mercury, and similar metals are all dangerous and should be avoided inside your herp's enclosure.

2. Substrate (bedding)

Use a cage liner for easier cleaning, and avoid cedar and pine shavings, which contain oils that are toxic. Soil and sawdust can retain too much moisture and foster disease, while cat litter can induce pneumonia in some reptiles. It is often helpful to have two sets of liners so you can easily exchange one for the other, enabling you to completely clean and rinse each one. Be sure to use substrate specifically recommended for your species.

3. Feeding

The key to a healthy diet is variety and balance. Some herps are very specialized eaters, and some seem to adapt easily to whatever is offered. However, the number of nutritionally related diseases and deficiencies is extensive, and many captive reptiles and amphibians do not get adequate amounts of nutrients. Such inadequacy can manifest itself in ways that range from faded coloration to major limb and shell deformities, metabolic bone disease, or soft-shell disease, and a host of behavioral issues as well. In addition, live foods can contain parasites, bacteria, viruses, fungi, or protozoa that can be detrimental to your herp's health. Always buy good-quality food from a reputable source. Be knowledgeable about the diet requirements for your herp and follow them carefully. Provide adequate lighting for metabolic processes, and vitamin/mineral supplements as recommended.

Never leave uneaten food inside your herp's habitat, it can become rancid or spoil. If mice or other live prey are not eaten within an hour of feeding, be certain to remove these as well; mice have been known to bite and injure snakes. If your herp will not eat, be sure to check that his temperature requirements are being met, since his digestive system can slow itself in preparation for hibernation if the temperature drops too low.

4. Temperature, Lighting, and Humidity

Being cold-blooded, a captive reptile cannot maintain his body temperature within

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the range that he needs. It is up to you to provide both a temperature and humidity level that will keep him healthy. Most snakes, for example, will not eat if the temperature falls more than a few degrees below optimum since they assume that it is time to hibernate.

Most snakes need temperatures between 80 and 88ºF, iguanas between 85 and 90ºF, and anoles between 70 and 74ºF; but the optimum temperature is very specific to the kind of herp you have. The optimum range may lie within 2 to 4 degrees, so temperature must be carefully monitored. Ideally, providing a temperature gradient in the enclosure allows the herp to move himself from a warm (basking) spot to someplace cooler as he needs to regulate his temperature. In the wild, herps are used to having the temperature drop from 5 to 20 degrees at night. A reptile kept at a totally constant temperature may develop heat stress that can cause illness and even death. One kept in too cool an environment will not be able to properly digest his food, and will also die.

To make sure that your herp has the right temperature, the first step is to ensure that you have purchased the right equipment. At minimum, you need a good thermometer and proper lighting, because light can provide not only warmth, but assist the herp's metabolism. Depending on your herp and his sensitivity, you may need specialized heating equipment like nocturnal heat lamps, basking lights, under-tank heaters, or radiant terrarium heaters, among other items. Be very careful how you place your lights and heat sources. Iguanas especially are prone to lying too close, and being burned as a result. Research into your specific animal is critical so that you understand his needs.

5. Cleaning

Reptiles are susceptible to skin and bacterial infections if cages and housing are not kept scrupulously clean. Their fecal matter carries bacteria, such as *Salmonella*, that can also contaminate humans. Cages, furnishings, and the cleaning equipment itself need to be regularly cleaned and periodically disinfected and sterilized. Some soaps and many, if not most, cleaners, disinfectants, deodorants, herbicides, and pesticides are toxic to your herp. The best products for cleaning your herp's habitat are those specifically designed to be herp-safe. Otherwise, use plain soap and water or mild dishwashing detergent carefully diluted according to the manufacturer's instructions. Be sure to rinse with hot water until all suds are gone, and do not use any products that contain phenol or pine scent. After washing, you will also want to disinfect and sterilize. To do so, you can use either chlorine or ammonia, but both are highly toxic to your herp so

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absolute care must be exercised to remove all residue before replacing your pet in his newly cleaned home. This is difficult to accomplish, so you may prefer to purchase a disinfectant/sterilizer like Natural Chemistry Healthy Habitat that is specifically formulated for the task. Be sure to also thoroughly clean all equipment, sponges, buckets, and sinks to prevent cross-contamination. To minimize the danger of *Salmonella* infection, wear gloves and protective eyewear as you clean your reptile's enclosure.

6. Parasites and Pesticides

As you clean your herp's enclosure, be sure to check every corner and surface of the cage and every piece of equipment for reptile mites, louse eggs, and mite feces. Also, inspect your animal regularly for evidence of mites and internal or external parasites.

Mites appear as small brown or black spots around your reptile's eyes, between his scales, or moving over the animal's skin. Ticks are slightly larger, appearing brown, black, or gray in color. They attach themselves to the animal and begin to draw blood and nutrients. Internal parasitic infestations are most often signaled by emaciation or changes in the feces. Roundworms appear as small, white, thread-like objects in the feces, while tapeworms can be diagnosed by small, opaque and rectangular segments in the feces.

If you suspect an internal parasite or if you notice any change in the color, consistency, or frequency of your herp's urine or feces, collect a fecal sample and take it to your veterinarian along with your herp for an examination and treatment.

Special sprays and treatments are available for dealing with external parasites such as mites and ticks, and these should be used instead of "home" or general remedies that produce dangerous side effects in your herp. The environment will also have to be thoroughly treated, and stronger chemicals can and should be used to do so. Be certain to remove every trace of those chemicals before returning your herp to his environment to avoid poisoning, and possibly killing, your herp.

Reptile mites are difficult to kill because the chemicals or heat necessary to eliminate them are harmful or even fatal to the reptiles themselves. They breed quickly, so if even a few escape drowning or other methods of eradication, they will quickly multiply to create a new infestation. The most effective treatment is a combination approach, including a bath to drown as many of the mites as possible, followed by a treatment with safe chemicals sold especially for the treatment of reptile mites. Once the animal has been treated, place him in a temporary enclosure or area (one that you can later thoroughly clean, sterilize, and fumigate) while you clean, disinfect, and fumigate his usual housing, equipment, and accessories with stronger pesticides. Before replacing your pet, be certain that every trace of chemicals has been rinsed away, and then soak and treat your pet again one last time before replacing him in his housing. Unhatched mite eggs will not be affected by fumigation, so you will have to repeat the treatment of the

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environment and reptile once a week for 2 to 6 weeks to be certain that you have finally resolved the problem.

7. Medicines and Unwelcome Treats

Many human foods and many, many plants are highly dangerous to your herp. Be sure to use only safe plants in your vivarium - do your homework on any plant that you wish to add. Do not give your animal any human food, or food that is not natural for him to consume. Feed only a diet specifically formulated with your pet in mind. Never give your herp any medications unless directed by a veterinarian, and take the extra time, before the need arises, to find a veterinarian experienced in herpetological medicine.

8. Equipment Failure

Being prepared for disaster means understanding the specific needs of your pet. As you do, you will be able to create the perfect environment to maintain his health. That environment will be based, in no small part, on a wide range of equipment that will become your pet's lifeline. If that lifeline fails, due to power outage or to equipment failure, you should always have a backup plan. Remember, your pet will not eat or drink if he gets too cold. Herps can survive far longer without food than without water. Lack of humidity or too much heat can also be extremely dangerous, but this is easier to deal with through the use of spray bottles, pans of water, or simple sponge baths. Be sure to keep plenty of bottled water on hand.

If at all possible, try to keep spare equipment for the most vital aspects of your pet's daily needs. If this is not a possibility, develop a backup plan for other ways to provide gentle warmth or coolness, depending on the season and climate where you live.

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