



Milwood Animal Clinic

5942 Lovers Lane · Portage, MI · 49002

Phone (269) 342-9865

Fax (269) 342-6830

www.MilwoodAnimalClinic.com

Corn Snake Care Guide

Basic Facts and History

Corn snakes are a species of rat snakes that are found in North America. They are constrictors (they bind their prey to kill it), and are commonly seen as pets.

They obtained their name from historically being where grain was kept (as this was where their preferred prey was), and the name has been used as far back at 1675.

In general, corn snakes are considered good "basic" snakes due to their calm temperament and overall easy to manage size (interesting to interact with but not so large to be daunting).

However, they can still get quite large - just not as large as some other snakes. Females have been known to get up to 6ft in length, while males are generally approximately 1ft shorter.

Their lifespan is typically 10-15 years, though there are documented cases of corn snakes living longer.

There is also a multitude of colors within the corn snake world. Due to captive breeding, there are numerous "morphs" (color variations) now available, and they are easy to find at pet stores, trade shows, or from private breeders.



Captive Housing

The natural range of the corn snake is deciduous forests, pine barrens, rocky hillsides and farm areas over a broad swath of the United States. They are most active at dawn and dusk.

Snakes are escape artists by nature, and corn snakes are no exception, so you will want to be sure that your snake's enclosure is sturdy and safe. We recommend a glass aquarium with a heavy duty wire top on a hinge, and the ability to add a lock. You would be surprised just how strong your snake is!

Size of the aquarium can vary, but a young snake will be ok in a 10-20 gallon aquarium, while adult snakes may need more than 40 gallons. A rule of thumb used in the reptile world is if a snake is twice as long as it's enclosure the enclosure is too small.

You have a few options when it comes to substrate, or what you line your snake's cage with. The easiest substrate to clean is paper towel or newspaper. This option allows you to easily remove any soiled materials from the cage quickly and efficiently, and any mites or fecal abnormalities will be more visible. A similar option is reptile carpet, which is becoming more and more popular with reptile owners. If you decide to use this substrate, you need to have one or more

backup carpets available so that you can quickly remove any that has been soiled. See the section at the end of this report on how to safely clean.

You will want to avoid pine, cedar, and sand. These can lead to impactions or other health concerns.

In the wild, corn snakes spend a good deal of time curled up in a dark, safe, hiding spot. You will want to provide similar hiding environments for your pet. You will want to start with a small box that the entire snake can fit snugly into, and replace it as your snake grows. You may want to use something as simple as a cardboard box, which can be easily thrown away if it becomes damaged or gets soiled, or you may opt for something more aesthetically pleasing. Many natural looking hide rocks and logs can be found at pet stores. Keep in mind that the hiding box will need to be cleaned routinely. You will also want to provide a climbing branch, with fake foliage covering a portion of the climbing branch.

A humidity chamber is also helpful for when your snake sheds its skin. You can make a humidity chamber using one of your snake's hide rocks or simply a tupperware container with a hole cut in it for entry. Place some damp sphagnum mass (available at Lowe's garden center) inside and spray the moss daily to keep it damp. Change the moss and clean out the container weekly.

Clean water should always be available in a dish.

Lighting & Heating

Unlike other reptiles, corn snakes do not require a UVB light (pending further research). It is believed due to their diet (small mammals, which have skeletons) that they get a majority of their calcium from that. UVB in other reptiles is an extremely important part of calcium metabolism.



While UVB is not required, general lighting is encouraged (even if its from a nearby window). While it can be used as a heating source, it is more important as for circadian rhythm (day, night sleep cycles). Light should be on for 12 hours and off for 12 hours.

As for heat, an under the tank heating pad used appropriately works well. The hot side of the tank should be 85-90°F, while the colder side should be low 80°F. This is important to have a gradient, so that the snake can thermoregulate as needed.

Humidity in the tank should range between 40-60% except when shedding (then its acceptable to have a higher humidity or use a humidity box as described above).

Diet

Juvenile corn snakes will eat pinky mice, while older snakes may need adult or jumbo adult mice. The way to determine best size is to compare the girth of the animal you're feeding to the snake. You will want them to be comparable in size.

Juvenile corn snakes eat one mouse every 5-7 days, while adult snakes generally eat once every 7-10 days. Corn snakes rarely avoid a meal, and they should be fed frozen/thawed mice. Living mice are NOT recommended due to risk of the mouse injuring the snake. It is best to feed the snake with tongs, not hands, unless you want to get bitten.

Handling

Corn snakes can be incredibly tame, but younger snakes do not start off that way. Hatchling corn snakes are nervous and prone to being defensive. However with time and work, they can become quite tame and easy to handle.

Remember, however, unlike pythons they do not curl around you.



What to Expect at a Veterinary Visit

Routine veterinary care for newly acquired snakes is essential. Some of the parasites infesting snakes can be transmitted to humans and other reptiles. Left untreated, such infestations can ultimately kill your snake. When your snake first defecates, collect the feces in a clean plastic bag, seal it, label it with the date, your name, phone number and the snake's name, and then take it to an experienced snake veterinarian. There it will be tested and the proper medication given if worms or protozoa infestations are found.

Two common problems encountered in captivity include retained eye shed (spectacles) and mites. When snakes shed their skin, the layer of skin over their eye is also shed, and can be clearly seen when looking at a piece of head shed. Always check your snake's head shed to assure it has shed the spectacles. If one or both spectacles have been retained, place the snake in a shallow pan of luke-warm water for about ten minutes. Before returning it to the enclosure, place a dab of artificial tears ointment on that eye. The spectacle should come off within twenty-four hours. If it does not come off, repeat the process from nose to neck. If this does not remove the spectacle, seek veterinary assistance.

Adult mites are tiny reddish, black, or brown dots barely bigger than the period at the end of this sentence. You may first notice them swarming over your hand and arm after you have handled your snake (don't worry—they are harmless to humans) or see them moving around your snake's body or clustered around the eyes, nose, or chin. Mites are harmful to snakes, especially ones that have not been kept properly. On the positive side, they are easy and relatively inexpensive to get rid of, although the process is time-consuming.

Lack of appetite, lethargy, and problems shedding are all indicators that your snake may be ill.

Cleaning, Disinfecting and Sterilizing

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A Brief History of Antisepsis

The two perhaps most important contributions to antiseptic procedures in the medical arts both happened during the last 150 years. The French chemist and microbiologist Louis Pasteur set the stage for the later appearance of British surgeon John Lister (1827-1912) who pioneered antiseptic operating room procedures (and after whom Missouri physician Joseph Lawrence named his antibacterial mouth wash). In a time when surgeons operated in their street clothes, surrounded by similarly clothed (and septic) onlookers, and just after surgical instruments were finally being washed in soapy water between operations, Lister campaigned for heat or chemical sterilization (and for surgeons to use something other than sawdust swept up from the floors of the mills, used in surgical dressings). William Stewart Halsted (1852-1922) furthered the cause of antiseptic technique with his introduction of surgical gloves. [The word sepsis is a noun that relates to the presence of organic pathogens (disease-causing organisms) in the blood or tissue; "septic" is the adjective. "Antisepsis" is the noun meaning destruction of such organisms; "antiseptic" is the adjective.]

To many people, these three terms--cleaning, disinfecting and sterilizing--are synonymous but the fact is that they stand for three discrete processes. What you know--or don't know--can at best be a waste of time and money for you; at worst, it can make you ill and be deadly to your animals.

Cleaning

Cleaning is the general removal of debris (food, feces, urates, blood, saliva and other body secretions) that helps reduce the amount of organic matter that contributes to the proliferation of bacteria and diseases. The more debris that is removed at the cleaning stage, the better able your disinfectant will be able to do its job. Most disinfectants cannot work their way under chunks of debris or smears of blood on the tank or utensils; if any bits remain stuck on, use a little elbow grease--or a putty knife dedicated to cage cleaning--to work it off. Before really getting into it with a scouring sponge or pad, test a small area of the tank to see if it is going to abrade the surface of the tank. Repeated scratching may be unsightly, but worse is the fact that it provides lots of nooks and crannies in which bacteria and other beasties can hide.

Cleaning is best done with hot, soapy water. The hot water and surfactants in the soap work to loosen debris stuck to surfaces. Clean rinse water flushes it away. When you are cleaning enclosures that cannot be taken to a tub, sink or outdoor hose to be thoroughly rinsed out, it must be done with sponges, rags or paper towels. In any case, you must completely rinse out or wipe off all soap residues as some ingredients may interfere with the work of the disinfectant.

A simple cleaning may involve the removal of animal waste and the substrate surrounding it. If the substrate is paper, the entire substrate should be changed. If the enclosure is lined with outdoor carpeting or artificial turf, it should be removed and a clean piece placed in the enclosure. (Rotating pieces allows enough time to thoroughly clean, disinfect and dry the soiled piece.) If the animal waste, food, or fluids from prey

have come into contact with the floor or walls of the enclosure, then they should be disinfected after the areas have been cleaned.

Almost any good liquid soap can be used for cleaning. Simple Green™ and regular dishwashing soap both work well; be sure to dilute products such as Simple Green according to manufacturer's directions. There is no need to bother with soaps advertised as "antibacterial" - all soaps are antibacterial in that they, in conjunction with hot water, help remove bacteria from surfaces. Antibacterial soaps are not disinfectants and should not be used in place of a proper disinfectant. Do not use soaps or cleansers which are abrasive, contain pine scents or phenols.

Disinfecting and Chemical Sterilization

Disinfecting means pretty much what it says - it removes most of the organisms present on the surface that can cause infection or disease. Disinfecting is not suitable for eradicating mites but is useful against a number of bacterial and viral microorganisms. Sterilization, on the other hand, is the killing or removal of all disease causing organisms. Often the same products may be used to disinfect and to sterilize; the difference is in the strength of the solution and/or the amount of time the solution is left in contact with the surface.

There are many products on the market that may safely be used (when directions for use are carefully followed) to disinfect reptile and amphibian tanks. Two may be found on your grocer's shelves - chlorine (household) bleach and ammonia. Both are highly toxic to you and your animals and must be used with extreme care. Other disinfectants may be purchased through animal supply catalogues, industrial supply houses and feed stores: Roccal-D™, a quaternary ammonia compound, and Nolvasan™ (chlorhexidine diacetate). The latter is useful to have in the herper's collection of supplies because in its dilute form it may be used to flush wounds, treat stomatitis (mouthrot) and soak syringes and feeding tubes. These products are expensive, ranging from \$35-55 but, when diluted according to manufacturer's directions (Nolvasan, for example, is used at the rate of 3 ounces per gallon of water) they will last a long time (depending upon the number of enclosures, furnishings and utensils). Bleach should be used at the rate of 4 ounces per gallon of water, ammonia at 3.5 ounces per gallon. Note that weaker solutions should be used on amphibian enclosures and furnishings.)

To disinfect surfaces, generously apply the solution to the surface with a saturated cloth, sponge or spray bottle, or let the object soak in a container of the solution. Let the solution sit for at least 10 minutes; 15-20 minutes is better. To sterilize, let the solution sit for at least one-half hour (be sure to check the manufacturer's directions to see if a stronger solution is necessary for sterilization). Rinse out thoroughly, especially when using bleach or ammonia. If there is any doubt about your ability to thoroughly rinse out an enclosure, or the enclosure is made of wood, you may wish to think twice about using bleach or ammonia. Any residual of these substances left in the tank can cause severe, if not fatal, problems for your animals. Both substances produce strong fumes that can cause internal and external irritations. (Simple Green's aroma is artificial sarsaparilla and is not toxic to reptiles; no information has been found in reference to its use in amphibian enclosures.)

Now Comes the Fun Part

It doesn't make any sense to use disinfectants if you spread organic matter from one animal's enclosure to another on your sponge, rag, gloves or utensils. While your risk of cross-contamination is reduced in a long-established closed group of animals, any group that is subject to change, with new animals coming into the group (not necessarily into the same enclosures as established animals) then the risk of cross-infection is high.

Cleaning Equipment and Supplies

A set of equipment and supplies should be dedicated to new animals. In large groups of established animals, the threat of cross-contamination can be reduced still further by dedicating a separate set of equipment and supplies to each type of animal: snakes, lizards, turtles and tortoises, amphibians.

The cleaning equipment and supplies required include:

- disposable gloves
- sponges
- scrapers (such as a putty knife)
- glass or metal bowls or buckets for hot soapy water and for the rinse water
- paper towels, sterilized cloth towels or rags, or disinfected sponges
- disposable trash receptacle such as a paper or plastic bag.

Items such as feeding and water bowls, rocks and ceramic, plastic or rock caves and hide boxes should be removed, cleaned and disinfected (as described below) and set aside; they can be placed back into the enclosure once the substrate and tank have been taken care of. Water bowls should be disinfected weekly in a bleach solution.

The disinfecting and sterilization equipment and supplies required include:

- disposable gloves
- a spray bottle or bucket of prepared disinfectant solution
- a metal or glass or bucket of fresh rinse water and two for disinfectants.

Utensils such as scrapers, rags, sponges, snake tongs or hooks, and reusable rubber gloves should be washed in soapy water, then soaked in one disinfectant (such as a chlorine solution) for at least five minutes. The utensils are then rinsed thoroughly before being used again. The second container of solution (such as Nolvasan) is used to disinfect the enclosures.

- large receptacle for soaking and disinfecting furnishings (bowls, rocks, caves).

This should be set up somewhere away from food preparation areas where the articles can stay until you are ready to thoroughly rinse and dry them before placement back into the enclosures.

The Process

Begin working with your established, healthy, animals. Once you have finished their enclosures, clean and disinfect your utensils. Move on to any established animals that are ill. Clean and disinfect the utensils before starting to work on the quarantined animals last. (The idea of having separate sets of utensils and spare rags and sponges begins to not sound so crazy, after all...) Clean and sterilize the utensils, sponges and rags after you are finished.

Needless to say, this can make cleaning a frustratingly time-consuming task if only one set of utensils is used. So splurge and buy a couple of inexpensive putty knives. Hit your local thrift shops for old towels and sheets to (rip into rags) and old mixing bowls. Sponges can be bought in packages of 8-10 to a pack. Save shampoo and similar bottles to store smaller quantities of your disinfectants so that you are not always working with the heavy gallon bottles. With all the waste and trash that gets dumped into our landfills, it is nice to know that there are ways that we can reuse and recycle.

Rags, towels, cloth bags and sponges may be sterilized by soaking in ammonia for 30 minutes in a well ventilated place away from the animals, then washing thoroughly in hot soapy water and allowed to dry. Bleach may also be used for this purpose, but after a time it begins to destroy the integrity of the fabric. This isn't a major problem if you buy your towels and rags at thrift shops. If at all possible, establish a routine. Check enclosures daily for messes that can be quickly cleaned. Schedule one day a week to do a complete cleaning of all enclosures. This is a good time for animals that are otherwise enclosure-bound to get some fresh air and sun, or a nice long soak in the tub while you slave away in their tanks. Crank up the music, plop a drop cloth on the floor if you tend to be a klutz like me, and go to it...it's a dirty job, but somebody's gotta do it.

Recipe for Glass And Window Cleaner:

Into a clean, empty gallon bottle, pour:

- 1 quart rubbing alcohol
- 1/4 cup vinegar
- Just a few drops of liquid soap

Fill up the rest of the bottle with clean water; distilled water is preferred but not essential. Shake well. The mixed cleaner can be poured into spray bottles, or directly (I would advise using a funnel) into your windshield wiper cleaning fluid container. Just spray it on and wipe as usual. For stubborn spots, spray some on the spots, let sit for a minute or so while you work.