

Lizard Health

Leopard geckos, bearded dragons, and crested geckos are some of the hardiest lizards available in the pet trade, and many will never require a visit to a veterinarian. But, these lizards are subject to some diseases, and keepers should be aware of potential diseases and how they can prevent their spread.

Both captive bred reptiles and those living in the wild often harbor some type of intestinal parasite. Most of these parasites are transmitted through fecal to oral contact (the lizard ingests even a tiny amount of feces, either directly or indirectly). Wild reptiles are often able to handle their parasite loads because the parasite loads are usually small, wild reptiles are usually widely separated, and since most reptiles usually defecate and move on to a different location they can typically avoid reinfecting themselves. But, in captivity reptiles are confined to small enclosures where they are in close proximity to their own feces, or feces of other reptiles, and it is relatively easy for them to build up a heavy parasite load. Leopard geckos, bearded dragons, and crested geckos do not desire to ingest feces of any kind, but there are many ways pathogens passed in the feces can be ingested:

1. Crickets that are left in the enclosure can eat the lizard's own feces, ingesting parasite eggs that were shed in the feces, and those eggs will be reintroduced back into the lizard when the crickets are consumed.
2. Many lizards consume their skin in the process of shedding, and any fecal matter on their skin (their own feces or from other animals) will also be consumed.
3. Food items can be infected with pathogens. Some cricket suppliers pack their crickets on used egg crates that may contain pieces of broken eggs. Chicken eggs pass out the back end of chicken and sit in a chicken cage (possibly coming in contact with chicken feces), a likely place to find coccidia. Raw eggs can contain Salmonella. Crickets will eat almost anything, including raw egg or eggshells that are packed with them while in transit, so if they are packed with broken eggs they may arrive to you infected with coccidia, Salmonella, or other pathogens.
4. Once you have one infected animal in your collection, it is easy to accidentally spread pathogens by touching anything that has even a tiny amount of feces from the infected animal, then touching something that may be consumed or in contact with an uninfected animal (food items, water dishes, animal itself, cage, etc.). Reptile pathogens are rarely species specific, so pathogens can be spread between species. For example, snake pathogens can be spread to lizards, and vice versa.
5. Infected animals can easily spread pathogens when housed with uninfected animals through the various methods listed above.
6. Improper sterilization of cages and cage furniture between animals can easily spread diseases.

Even a healthy looking lizard can be harboring intestinal parasites, and they may be able to live their entire lives without ever becoming ill. Stress is often the trigger that can allow an intestinal pathogen to take over and make your lizard sick. This stress can be brought about by various factors including:

- 1 Improper husbandry, including improper temperature or humidity
- 2 Overcrowding
- 3 Extremely dirty cages
- 4 Bullying by larger animals
- 5 Breeding. Reproduction is a stressful time for lizards, as a lot of energy is required for them to lay eggs every 3-4 weeks. Most females lose at least some weight in order to meet the reproductive demands of breeding season.

If your lizard unexpectedly and suddenly starts losing weight, or has runny or really stinky feces, you should take a sample of fresh (still wet) feces to a vet specializing in reptiles for a fecal exam. You should put the fecal sample in the refrigerator until you are ready to take it to the vet to slow the hatching of pathogen eggs.

Unfortunately there is no “quick fix” for treating reptile pathogens; proper diagnosis and a course of medicine is the best way to get your lizard healthy again. The main pathogens I have heard of causing problems in leopard geckos, bearded dragons, or crested geckos are worms (pinworms, hookworms, etc.), coccidia, trichomonas, and cryptosporidium. Worms are usually not a big problem to treat; usually a couple doses of Panacur can take care of them. Coccidia are a big hassle to treat, but at least it is treatable. There is currently no cure for Cryptosporidium. I do not recommend you treat your animals with Panacur (Fenbendazole) or Flagyl (Metronidazole) without knowing exactly what type of pathogen has infected your animals.

I do not feel it is absolutely necessary to conduct regular fecal exams on your animals or on new additions to your collection, as long as you quarantine new animals for 3 months. But, if a problem presents itself (lizard is lethargic or starts losing weight) you should not hesitate on getting a fecal exam done by your vet.

Tips for Keeping Your Lizard Healthy

In addition to reducing stress as much as possible, here are some tips for controlling and preventing the spread of pathogens in your reptile collection:

1. Quarantine all new animals for 3 months. Many authors say quarantined animals should be kept in another room away from any healthy, established animals. I have never heard of leopard geckos or crested geckos carrying mites, so with these species you should only have to worry about pathogens being spread by fecal to oral contact. I have seen bearded dragons with mites, so quarantine in a separate room is justified for this species. Assuming mites are not an issue, you are the only one that could spread diseases between cages, so you need to be mindful of your actions when cleaning the cage or handling the quarantined animal. ALWAYS wash your hands after handling the quarantined animal, its feces, or anything inside its cage before you touch another animal. Although it may appear you do not have any feces on your hands, minute traces could be present, and these could be enough to spread these microscopic pathogens. In my collection I even go to the extreme of washing my hands between dealing with

- animals I have purchased from different breeders, even if they appear entirely healthy after a 3-month quarantine period. Although this means I have to wash my hands literally 25 times in the process of spot cleaning or watering my lizards, I feel it is worth the extra effort to prevent spreading diseases that could possibly show up in the future.
2. You should also be mindful of using cage furniture, water dishes, and cages between animals. Traces of feces containing pathogen eggs may remain from the former cage occupant that can be spread to the new resident. These eggs can remain viable for months or even years. A bleach solution is enough to kill many pathogens, but full strength ammonia is required to kill *Cryptosporidium*. I prefer to use Nolvasan for basic sanitation purposes because it is not as caustic as bleach and is fairly nontoxic to reptiles.
 3. Make sure you are feeding quality food to your reptiles. As discussed above you should avoid cricket suppliers that pack their crickets on used egg crates that may contain pieces of broken eggs. Do not be afraid to ask questions of your cricket supplier. Ask them if they use used egg crates. I recommend using a cricket supplier whose main focus is producing crickets for the reptile trade (versus fishing). If you are ordering crickets by the thousand and would like me to recommend a cricket supplier to you, send me an email and I would be happy to help.
 4. Minimize the amount of time a food item can remain in the cage before it is eaten. As discussed above, crickets that remain in the cage for extended periods will often eat some of the lizard's feces, and this can reintroduce pathogen eggs back into your lizard, increasing its pathogen load.

I hope these tips help you to realize potential ways diseases can be spread in your reptile collection. Hopefully your lizards will never develop any of these diseases, but if they do, I hope this information will provide you with the basics on how to remedy the problem and prevent it from happening again in the future. Good luck!