

Snake Skin Peel and Vitamin C Deficiency

My reptile had scale rot and now the skin peels off to the muscle. What is wrong?

By Margaret A. Wissman, DVM, DABVP

I love reptiles, and I have studied them since before I was 9 years old. I started keeping all kinds of reptiles, and at the moment I have six snakes and three lizards, three turtles, three ferrets and three types of insects, as well as two cats. Because I have so many animals I started studying diseases. I know most about diseases found in snakes. I've learned how to give shots, force-feed, hydrate, etc. all of my snakes.

I have a ball python that I have had for about three years. When I got her, she wasn't eating correctly, so I bought her from the owner. She was quite anorexic. I know ball pythons have a tendency to not eating, but she'd go months at a time without eating. In the meantime, she had many cases of mites. She hasn't had mites for almost a year now, and she finally eats on a proper feeding schedule.

The only problem is that she has always had trouble shedding. I had set her up a cage with a nice natural environment. One day I moistened one side of her cage, and someone kept shutting off her lamp. Everyday I would have to turn it back on. Because the lamp was constantly being turned off, the water I poured in never humidified; it just sat there. So, of course, she got scale rot. I knew how to treat it, and I followed all directions.

One day I rubbed my finger on her, and her skin peeled off, where I could actually see the muscle underneath. I've read all my books and looked all over the Internet and haven't found one case where a snake's skin actually peels off the actual muscle! All I have in her cage is a water bowl and newspaper. That way she can't rub against anything rough. She will just crawl to the other side of the cage, and somehow she'll open up another area of skin and start to bleed. I checked her and her scale rot is almost completely healed, but I can't stop her skin from just coming off. I don't have any idea what to do. She is sensitive to the touch now. I have no idea what is going on, so please, please help me. If I can't figure out what is wrong soon, then I am going to put her out of her misery and euthanize her.

I applaud you for researching all of your pets and their possible ailments, and I think it is wonderful that you have contacted me about your ball python. However, I am disturbed by one issue. While books and the Internet are wonderful sources of information (well, usually), nowhere in your letter did I see you mention seeking the assistance of a herp veterinarian to help you with your python problem! You are a very knowledgeable person, to be sure, but you don't have the depth of experience or continuing education hours that veterinarians possess when it comes to anatomy, physiology, pathology, husbandry, nutrition, medical conditions and such.

I would hate to think that you would euthanize your ball python yourself, especially without first consulting a herp vet. Also, herp veterinarians have many different types of medications and anesthetic agents that can be humanely used to euthanize herps. I am concerned about the potential methods of euthanasia that you might employ in regards to your snake, because you do not have access to veterinary euthanasia solutions.

What you are describing in your ball python is spontaneous rupture of the skin. This has been reported in boas and pythons, and I have also personally consulted in a case of this occurring in a king snake. In boas, it was thought to be associated with vitamin C deficiency. It was also seen in severely malnourished pythons. Because your snake suffered from feeding problems, as well as mite infestations, there is a possibility that it, too, could be suffering from scurvy (hypovitaminosis C, or vitamin C deficiency). Usually, vitamin C is synthesized in the kidneys and/or intestines, so it has been hypothesized that renal (kidney) and/or intestinal disease could diminish ascorbic acid (vitamin C) synthesis in snakes in captivity. Scurvy can cause reduced collagen synthesis (collagen is a type of connective tissue) or decreased strength of certain tissues, including skin and blood vessels. Sudden skin rupturing or spontaneous bleeding from the gums are two common signs of vitamin C deficiency.

So, I am not sure if your snake is having a problem with some other sort of malnutrition, scurvy or something related to the skin infection that she had previously, or a combination of the above. You didn't say what you treated her with, and I am assuming that you did not take her in to see a herp vet, as you didn't mention one, either. Your ball may need systemic antibiotics, given by injection, and it may need to have the ruptures sutured. Please don't attempt any of this yourself. Because you mention that the python is sensitive to the touch, it most likely would benefit from pain medications as well.

Please make an appointment with a qualified herp vet so that your ball python can be evaluated and treated by a professional. While I think it is admirable that you are able to do much by yourself regarding the care of your pets, I hope you discover how much better you can do by finding a herp vet who you can work with! We aren't the enemy; while we do

charge for our care, we have a lot to offer a bright, young pet owner such as yourself! Please find a vet who you would like to work with — and who knows — you may end up volunteering there or even getting a job there someday. And if that sparks your interest, you may find yourself following a career path in one of the many animal related fields! I wish you all the success in the world and good luck with your ball python! Thanks so much for writing in!

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Need a Herp Vet?

If you are looking for a herp-knowledgeable veterinarian in your area, a good place to start is by checking the list of members on the Association of Reptilian and Amphibian Veterinarian (ARAV) web site at www.arav.com. Look for DVMs who appear to maintain actual veterinary offices that you could contact.