

# Association of Reptilian and Amphibian Veterinarians

Advancing reptilian & amphibian medicine, surgery, & conservation worldwide



## ARAV Monthly Herp Blerp

### Greetings from the ARAV Technician

Issue 11, January 2014

Hello my Reptilian and Amphibian shugs,

Happy New Year! I hope this finds all of you healthy and happy so far. This year we have some great things planned for all you reptile and amphibian lovers. One of the coolest parts of my little section here is I get to talk about nifty things like our very own Dr. Mark Mitchell being spot lighted in Veterinary Practice New's "14 Vets to Watch"! Congratulations Dr. Mitchell!

In lieu of gifts, Dr. Mitchell requests articles be submitted to the Journal of Herpetological Medicine and Surgery. Information on submissions can be found under the Publications section at [www.arav.org](http://www.arav.org).

As always, we want to hear from you! Especially students and technicians, this is your chance to be heard! Send in an article, tip, etc. Send them to [e.medecvt@gmail.com](mailto:e.medecvt@gmail.com). Don't forget to post this up where everyone can benefit from the information in these newsletters!

Your membership renewal reminding tech,  
Erica Mede, CVT

### Rock Beats Scissor, Calcium Beats Rubber



Despite their tough looks, reptiles are extremely sensitive to their environmental conditions. New reptile owners may not realize that the health of their pet is very closely related to the husbandry they provide, such as enclosure type, lighting, temperature, humidity, and diet. "Metabolic bone disease" is often mistaken as a singular disease process. Rather, it is a broad classification

of different diseases that affect bone, as well as systemic organ processes. Metabolic bone diseases can be nutritional or renal in origin, and in this article, I will focus on nutritional metabolic bone diseases, or NMBDs.

Lack of proper UV lighting (especially UVB), lack of dietary calcium or vitamin D3, or imbalance of the calcium to phosphorus ratio in the diet can cause NMBD. The proper UV lighting is required for the body to convert inactive Vitamin D3, or cholecalciferol, into its active form, 1,25 dihydroxycholecalciferol (1,25-DHCC), also called calcitriol. Calcitriol facilitates the absorption of calcium through the digestive tract, reabsorption of calcium in the kidney, and release of calcium from bone. While reptiles in the wild get enough UV exposure through sunlight, reptile owners cannot rely on their pets getting enough UV exposure through windows. Parts of the UV spectrum, including UVB and UVC, are filtered out as they pass through glass, so light from windows reaching the animal does not provide adequate UV exposure. If proper UV exposure cannot be attained, the diet must contain enough vitamin D3 and the right Ca:P ratio to prevent NMBDs.

### Tips, Tricks, and Toys

After putting box turtles under water and waiting, then pinning the sides of their heads and making their eyelids puff up (bilateral jugular occlusion probably not a good thing!), I discovered a kinder, gentler method. I use the incisor retractor from the rabbit dental kit to



ratchet open the shell. All 4 legs are easily accessible, because they can't close up caudally either, and we can trim the beak without

pulling the head out—we just use the smaller conical grinding stone on the dremel and retract any loose skin out of the way. The turtles seem to find this less objectionable as well!

- Dr. Laurel Harris

Nutritional Secondary Hyperparathyroidism, or NSHP, is a common form of NMBD. Colloquially, it is referred to as “rubber jaw”, as NSHP often causes facial and jaw deformities. NSHP occurs when parathyroid hormone pulls calcium from bones in response to hypocalcemia. This causes bones to become brittle or malformed, especially in growing animals. NSHP is caused by the husbandry issues discussed above. However, a complete history, physical exam, and appropriate blood work must be done to confirm NSHP and rule out other MBDs, such as those non-nutritional in origin. X-rays may also be helpful, as they can show decreased bone opacity, pathologic fractures, or deformities.

Clinical signs for NMBDs are lethargy, weakness, kyphosis, scoliosis, osteodystrophy, pathologic fractures, paresis, tooth decalcification, and in chelonians: soft, malleable shells. While NMBDs can occur in any reptile, young, growing animals are most affected. The best way to prevent NMBDs is to ensure that reptile owners are aware of the proper husbandry requirements of their pets, especially if they are new to reptile care. Make sure your reptile loving clients are aware of the proper diets specific for their pet, the lights they need for their enclosures, and the placement of lights relative to their scaly friend.



Jenny Kuhn

University of Illinois Class of 2016

## ABVP Announcement!



For all of you interested in becoming boarded in Reptile and Amphibian medicine come visit the 19th Annual ABVP Symposium in Nashville, Tennessee October 30-November 2, 2014. Find out more information at [www.abvp.com](http://www.abvp.com)

## Mark Your Calendars ...

March 7 – 9, 2014. **Reptile and Amphibian Law Symposium.** George Washington University, Washington, D.C. USA.

June 4 – 4, 2014. **American College of Veterinary Internal Medicine Forum.** Nashville, Tennessee, USA.

July 25 – 29, 2014. **American Veterinary Medical Association Conference.** Denver, Colorado, USA.

August 2 – 6, 2014. **Annual Association of Avian Veterinarians Conference and Expo.** New Orleans, Louisiana, USA. Contact: [www.conferenceoffice.com/aav](http://www.conferenceoffice.com/aav).

October 8 – 12, 2014. **Wild West Veterinary Conference.** Reno, Nevada, USA.

October 18 – 24, 2014. **21<sup>st</sup> Annual Conference of the Association of Reptilian and Amphibian Veterinarians.** This will be a concurrent conference with the American Association of Zoo Veterinarians and the Association of Exotic Mammal Veterinarians and will be held at Walt Disney World, Orlando, Florida.

November 9 – 13, 2014. **World Association of Zoos and Aquariums Annual Conference.** New Delhi, India. Contact: [www.waza.org](http://www.waza.org).

## Herp Trivia!

For all of you who want to stretch your neurons or want to study for the ABVP or AVTCP specialization, here is a little trivia! Want to know if you're right? You'll have to wait for the next newsletter!

**What do fontanelles do and what reptile are they found in?**

**A.) Spaces between shell bones that decrease the weight of the shell in aquatic turtles.**

**B.) Spaces between the vertebrae that allow increased mobility in snakes.**

**C.) Space between the clavicles of monitor lizards that allow unimpeded limb rotation.**