

# Stable Sheet



**In This Issue:**

My Equine Dentistry Journey	2
Dentistry Continued	3
Cooperative Vet Care; EquiDay 2021	4
Miner Musings from Alum Sam Dobbins	5
Emma Continued	6
Developing a Personal Preparedness Plan	7
Featured Miner Morgan: HD Phoenix	8

## REGENERATIVE MEDICINE: PLATELET RICH PLASMA

Over the summer, HD Phoenix “Emma” had a few days here and there that she just looked a little off. As a Grade 1 lameness, those occasional off steps were inconsistent, intermittent, and hard to pinpoint where the problem might have been as there was no obvious swelling. Until the day that she came in from the pasture hobbling on her left hind leg. Coincidentally, it happened that Dr. Randy Frantz of Burlington Equine Vet Service was coming for a pre-purchase exam, so we asked him to look at Emma for us while he was here.



Dr. Frantz ready to place the needle in Emma’s leg.

A quick lameness evaluation (now a Grade 4) and an ultrasound revealed what we’d guessed by then. Emma had a tear in the suspensory ligament. Dr. Frantz gave us some treatment options and we decided on the conservative approach at first- NSAIDs in the form of bute, icing the injured spot, topical application of the anti-inflammatory cream

Surpass, support bandage, and stall rest for 8 weeks. Emma handled the stall rest better than we’d expected, but the 8 week check up revealed that there had been very little improvement in the suspensory tear. Time for a change of treatment plan!

Connective tissues such as tendon (attach muscles to bones) and ligament (attach bone to bone) have very little blood supply to them. Blood is made of a few main components: plasma, red blood cells (RBC), white blood cells (WBC) and platelets. RBCs deliver oxygen from the lungs to the body and return

carbon dioxide waste to be exhaled. WBCs are lurking waiting to fight infection. Platelets are cell fragments produced by bone marrow that are the basis of the “mesh” that holds a body together. Plasma is the light-yellow liquid

See **EMMA**, Page 6



[www.facebook.com/Hearts-DelightMorganHorses](http://www.facebook.com/Hearts-DelightMorganHorses)



Follow us on Instagram  
@heartdelightmorgans

Visit our blog:  
[minermatters.com](http://minermatters.com)

# MY EQUINE DENTISTRY JOURNEY

Equine dentistry is a part of equine essential healthcare. The dentition of horses is described as “hypsodont”, which means horses have a long reserve crown and teeth erupt continuously as they age. Horses may develop sharp points, waves, hooks, protuberant teeth due to imbalance wear of teeth. Every horse chews differently and the type of feeds they consume can also affect dental health. Thus, routine dental care (recommended at least once a year) by certified equine dental technicians or veterinarians is crucial to prevent dental issues and soft tissue lacerations in the mouth.

In my home country of Taiwan, the equine industry is relatively small and equine dentistry has been neglected; there are no equine dentistry professionals at home. Hoping to eventually improve the care and welfare of horses at home, I started my equine dentistry education in February of 2020. In the future, I hope to cooperate with vets and work to improve equine dental health in Taiwan.

I first heard of the Academy of Equine Dentistry from a friend at the University of Idaho. I joined several equine dental groups on Facebook to ask for advice and experiences. I found that this school is highly rated by many certification examiners and the information taught is very up to date. The student body has people of diverse backgrounds; you can find high schoolers, vets, farriers, chiropractors, and human dentists in the class! I also have classmates from around the world such as Ireland, Spain, Canada, Brazil, Netherlands, and the UK. Enrollment does not require an advanced level of experience, but basic horse handling skills necessary. Before taking the certification exam, all students are required to take an Anatomy class and 4 levels of dentistry courses which all consist of lectures and labs. In addition to the coursework, each student



must work with a mentor(s) on at least 150 cases prior to taking the exam. I worked with my mentors, Dr. Richard Miller and CEqD Esteban De La Torre, for a total of 3 months and saw about 200 cases in California last year. Working with them significantly improved my skills, knowledge, and confidence level. I cannot thank them enough for exposing me to great techniques, amazing cases and wonderful clients/connections.

The photos show some of my work at school in November of 2020. It demonstrates how dental work changes oral health- the top two pictures are what I found with the initial exam. Sharp edges, excessive transverse ridges, arcade deviation, steps, waves, and unbalanced occlusal surface can be seen. Given that this horse is 18 years old (geriatric), I had to be mindful of how much work I could do on the teeth, since the eruption rate is slower in an older horse. Thus, I took off the sharp edges and created a functional wave to maximize the chewing surfaces.

Big thanks to my supervisor, Karen,  
**DENTISTRY**, Continued on Page 3



Before (top) shows the sharp edges, hooks, ramps, and steps of the molars. After (bottom) equilibration with dental tools fixed many of these problems to improve comfort and occlusal surfaces.

# DENTISTRY CONTINUED

allowing me to continue my dentistry schooling and internships while working at Miner. Following the dental school in December, I remained in Idaho and California to work with my mentor added equine experience. The following pictures are a couple of interesting cases that I saw while there:

- **An incisor that looks like molar!**

This funky looking incisor was seen on a geriatric American Blazer Horse. The cause of this abnormal tooth is unknown. Although the horse was reported to have no issue eating at all, my mentor and I found that the infundibulum (the big hole) is almost 30 mm deep after we flushed and probed it! We estimated that this tooth may have a weaker structure and may be prone to feed packing and infundibular caries (which leads to fracture of tooth) in the future so we performed a restoration on this tooth!

- **EOTRH: Equine Odontoclastic Tooth Resorption and Hypercementosis**

This disease is more commonly seen on incisors and canines of geriatric horses, although some papers have reported cases on cheek teeth. The cause of disease is not well known. It is a painful inflammation process of the tooth with excessive amount of cementum deposition and resorptive lesions. The treatment is usually extraction as it is very painful for horses to grab grasses or hay with the incisors. For this horse, we extracted all the incisors since as they were infected and the horse was not eating. The vet recommended this horse to be on soft food until the extraction sites heal. Many cases like this are still able to graze or consume hay and the prognosis is good for these horses to return to a comfortable life. The owner reported to us the next morning after the procedure that this horse “Ate very well and has never shown that much appetite before!”. Seeing horses being healthy and happy is the best reward of doing equine dentistry!



*Before* Cavity packed with feed.



*After* Tooth restoration completed.



Hypercementosis (the light brown part) and inflammation seen on all incisors.

— Kai Yun Lai, Equine Intern  
dea77423j@gmail.com



Learn more about the  
Heart's Delight Morgan Horses  
and view our sales list  
<https://www.whminer.org/morgan-sales-list>



photo by Christopher Crosby Morris

Also be sure to follow us on Facebook!  
<https://www.facebook.com/HeartsDelightMorganHorses/>

# WHAT IS COOPERATIVE VETERINARY CARE?

We've all struggled with the horse that resists deworming or vaccination, but often we muddle through that procedure only to be faced with it again next time. Desensitization to "offensive" stimuli can be helpful in getting an animal to be less reactive, but it doesn't create a willing partner. How about if we not only train the horse to tolerate procedures, but give them the chance to be active, willing participants?



Just before her injury, student Sam Conte from Clemson University had the honors of being Emma's first rider!

Cooperative Vet Care is common in zoos where the animals can't simply be held with a halter and lead rope or twitched to make them stand still. Trainers can train a lion to present its tail for a blood draw and a hippopotamus to open its mouth for dental work with positive reinforcement; we can do the same with horses! One of the biggest things with cooperative vet care is that the animal has agency to choose whether to participate at that moment or not. Funny thing though, when animals are given a say in the matter, they're more likely to choose to participate! Cooperative vet care reduces the stress and fear associated with procedures.

Clicker training is the easiest way to translate this technique for horses because

the click noise marks the moment the horse does the desired behavior and then follows it with a reward such as food or a scratch in a favorite place. First, the horse needs to learn either a targeted spot (such as a towel hanging over the fence or a jolly ball) or a relaxed pose. This will be the posture they assume when they're ready for the procedure. Next, you proceed to add stimuli that will mimic the procedure you're hoping to do, clicking/treating when they let you do this. This is a very brief description of how to start; there are plenty of resources as well as ways to search for vets and other professionals in your area that could help!

Fear Free Pets is an organization that offers training and certification through many levels of Cooperative Veterinary Care.

As part of Emma's rehab from her suspensory injury, she gets walked every day. To keep everyone safe and minimize her chance of re-injuring the site, she gets an IM injection of the mild sedative, acepromazine. Historically, she's been OK for needles, but I imagined that getting stabbed daily might wear on us all! I turned to cooperative veterinary care to help us both. Without being restrained, I first taught Emma to stand quietly while I stood next to her neck. Then, I added a finger pinch at the injection site and rewarded her for staying in her relaxed pose. Lots of repetitions and gradually increasing the time I held the pinch, and added a poke with a closed needle cap. She caught on very quickly! I was soon able to give the injection and I followed up with several pinch/click/treats without the injection to reinforce the quiet behavior. Very easily, we can enter Emma's stall and give either an IM or IV shot without drama!

—Karen Lassell  
lassell@whminer.com

## EQUIDAY 2021

### From the comfort of your own home!

EquiDay will look a little bit different this year, but will still feature some great learning opportunities. This year, the weather won't matter! Too cold and snowy to drive safely? No worries! Too nice to spend a full day indoors, even if the talks are interesting? Got that covered too! EquiDay will be offered in bits and pieces this year as a series of live Zoom meetings held on-line during the month of March. We will have a couple on weeknights and two on Saturday March 20, 2021. The final schedule will be available soon; watch social media, your email inbox, and Miner's website, [www.whminer.org](http://www.whminer.org) for more details.

As of press time, we are finalizing a time for a one-hour event with the reining trainer Warwick Schiller to join us — check him out on social media or at his website, [www.warwickschiller.com](http://www.warwickschiller.com). "Become the partner your horse has been waiting for" forms the basis of his training of people to become more aware of their horse's needs so that the physical development and skills we want a horse to learn become easier. Our own local vet, Dr. Sarah McCarter, will present on Cooperative Veterinary Care. She is a certified Fear Free practitioner and on her way to achieving elite status with that organization. It wouldn't be EquiDay without the Adirondack Tack Fashion Show, so mark your calendar for March 17th at 7pm! Plans are coming together for at least one more talk.

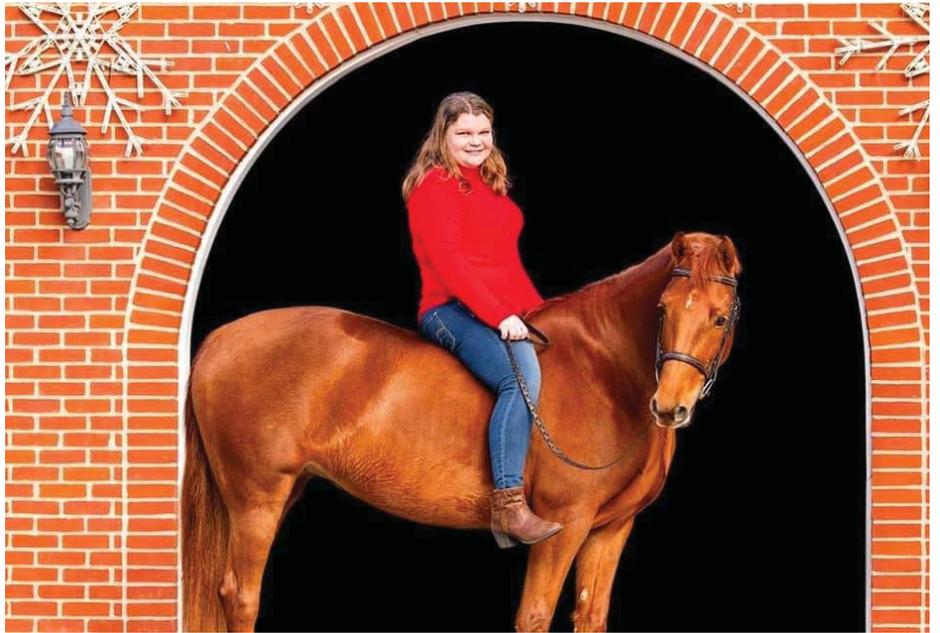
# MINER MUSINGS FROM ALUM SAM DOBBINS

Samantha Dobbins was a Summer Experience in Equine Management intern in 2014 when HD Bliss was born. She considers it one of her favorite Miner memories. “She was our second foaling that day, it was Friday the 13th, there was a full moon, and she was two weeks early,” Sam recalled of the day Bliss was born. “When she stood up, instead of walking towards Boo (her mom), she walked over to the door where the people were standing.”

Sam returned as the year-long equine intern in August 2016 and her affection for Bliss grew even more during that year. She ultimately bought Bliss and is completely in love with the 6-year-old mare, who she said still prefers people to other horses.

Sam grew up in Chesapeake Beach, Maryland and attended Averett University in Virginia. Sam said she came across Miner Institute in a google search for a paid equine internship. She’s pretty happy she found it and would recommend it to other students looking for an equine internship. “Miner is probably the friendliest, most welcoming place I’ve ever lived. All of the employees are super helpful and want you to learn as much as you can while you’re there,” Sam said. “The staff is super knowledgeable and they are always learning more and teaching it forward.”

After her internship at Miner, Sam moved back to Maryland and worked at a couple equine farms for a time.



—Photo by KMK Photography

Samantha Dobbins with her Miner Morgan, HD Bliss

She now works as a loan officer with Colonial Farm Credit. “It’s a job that gives me the weekends to go ride and show but I also still have my finger in the agriculture world,” Sam said.

“Miner taught me how to organize, prioritize, and delegate. I also learned to work with all kinds of different people which, in today’s world, is an invaluable skill,” Sam said.

Of her Miner Morgan, Bliss, Sam said that she is well loved at the barn where she boards. “My barn manager’s 12-year-old daughter has called dibs on her if I ever sell her,” Sam said, indicating how well-liked Bliss is. Since she was present at Miner when Bliss was born, she has truly gotten to see her through a variety of equine stages. “I helped halter break her, start

handling her feet, and other skills that would help her become a respectable baby horse. When I came back as a year-long intern, Bliss was ready to start learning more adult things like lunging in a biting rig, wearing a saddle, and eventually, carrying a rider. She learned to walk, trot, and do a little cantering under saddle during my time as a year-long intern.” Sam said that last year she realized that Bliss enjoys jumping so she has been working with her on that and hopes to compete with her in hunter/jumpers. “COVID threw a wrench into our show plans for 2020, but in 2021 I hope to get out to some local rated shows and show everyone that Morgans can be fancy jumpers too,” Sam said.

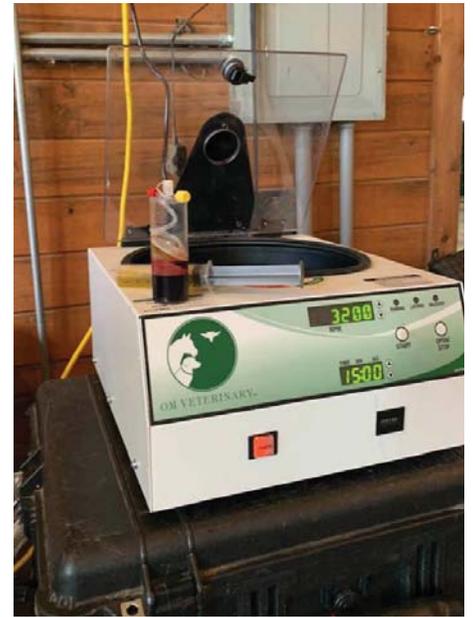
— Rachel Dutil  
dutil@whminer.com

# EMMA, Continued from Page 1

that is the “river” that carries all of these and is made up of water, salts and enzymes. Platelet Rich Plasma comes from drawing and spinning the horse’s own blood (it was about 60cc) in a specialized centrifuge that Dr. Frantz brought to the farm to concentrate the platelets and remove the RBC and WBCs.

There are always low levels of platelets circulating in the blood ready to go to injured sites. When a horse gets a cut, the first function of a platelet is to form a clot, then a scab, so that more intense healing can occur. How well an injury heals depends on how well the platelets attract stem cells that regenerate tissue or whether it just layers more mesh, creating scar tissue. Scar tissue is less organized and not as strong as the original type of tissue, whether that’s skin or ligament. Due to the lack of blood flow to ligaments, it will take a very long time to fill in a tear without intervention and the resulting scar tissue will never be as strong or resilient as healthy ligament tissue. Regenerative medicine, such as PRP, delivers a high concentration of the horse’s own platelets directly into an injured site to help the ligament rebuild itself as a nicely formed, strong piece of connective tissue instead of creating scar tissue. The hope is that if the ligament is returned to its best healthy state, the horse will be able to return to work as a fully sound horse.

After sedating Emma (a feat unto itself for a horse that’s not keen on strangers or needles), Dr. Frantz drew blood and created the PRP. The site was prepped for surgery by clipping and scrubbing well followed by a local anesthetic. Using the ultrasound to guide placement of the needle into the ligament tear, he gently filled the space with PRP. She was wrapped up and put on a few more days of rest before starting the next “leg” of the healing journey! Emma is a lively chestnut mare with very strong opinions about how Life-Ought-To-Be. Dr. Frantz left us with a bottle of injectable Acepromazine so that we could safely transition from full stall rest to hand walking daily for 20 minutes. Every day for the next 8 weeks, we gave Emma an IM dose of Ace and set our timers to go up and down our matted long aisle. The ace helped keep her just quiet enough to reduce the risk that she would bounce too much and potentially reinjure that spot. Many steps were gained on the fit bits, many songs were sung while walking, many sprinting cats were dodged and at 8 weeks post-PRP, Emma’s ligament was declared “looking good” by Dr. Frantz and ready to increase the exercise. We’ve begun to increase the outing times and have added trot to the list of fun things to do; hopefully, we’ll keep on making good progress as winter wears on so that she’ll be ready to really do great things by spring!



Above photos L to R: Dr. Frantz ultrasounds Emma’s leg. Dr. Frantz’s PRP machine.

## American Association of Equine Practitioners (AAEP) Lameness Scale

- 0: Not perceptible under any circumstances.
- 1: Difficult to observe and is not consistently apparent, regardless of circumstances (e.g. under saddle, circling, inclines, hard surface, etc.).
- 2: Difficult to observe at a walk or when trotting in a straight line but consistently apparent under certain circumstances (e.g. weight-carrying, circling, inclines, hard surface, etc.).
- 3: Consistently observable at a trot under all circumstances.
- 4: Obvious at a walk.
- 5: Minimal weight bearing in motion and/or at rest or a complete inability to move.

— Karen Lassell  
lassell@whminer.com



## DEVELOPING A PERSONAL PREPAREDNESS PLAN

### For Equine Owners/Caretakers During a Pandemic

We do an amazing job year round caring for our horses, and often go above and beyond the basic welfare standards to give them a very high quality of life. Unfortunately, this pandemic requires horse owners/operators to consider making arrangements for an alternative animal caretaker in the event that they become ill and need long-term care themselves.



**Developing a Personal Preparedness Plan can help relieve any worries you may have about getting sick and being unable to provide daily essential care for your horse(s).**

Follow the list below to create your own emergency plan:

1. Identify who will care for your horse(s) in case of illness or hospitalization. Redundancy is encouraged – it is not enough to have only one person identified!
2. Identify each horse – do not assume that everyone can recognize who is who in a herd of similarly colored horses.
3. Create a detailed and specific list of daily care instructions for each horse. **Identify and prioritize essential care**, considering only what is necessary to maintain welfare standards. Supplementing with pictures or video can be helpful. You may want to create a simplified list of care instructions if your caretaker is less experienced.
4. Make sure you have two weeks of feed and medication on hand for every horse.
5. Have electronic and written copies of the instructions in a conspicuous location.
6. In the event that you begin to feel ill, contact those on your emergency list to apprise them of the situation. Additionally, please minimize direct contact with your horse – if someone else needs to care for them, we must minimize their exposure to the virus.

— Reprinted with permission from <http://horses.extension.org>

The William H. Miner Agricultural Research Institute  
1034 Miner Farm Road  
P.O. Box 90  
Chazy, NY 12921

Change Service Requested



Non-Profit  
Organization  
U.S. POSTAGE PAID  
Chazy, N.Y. 12921  
Permit No. 8

## FEATURED MINER MORGAN: HD PHOENIX



— photo by Christopher Crosby Morris

HD Phoenix (Aljak's Seeing Double x Sugarlane Dominique) 2013 chestnut mare. When a horse is named for a town in NY that also happens to be a mythological long-lived bird that obtains new life by arising from the ashes of its predecessor, one should not be surprised when that bright red mare with a wild face marking would be large in personality! We often joke that "Emma" has fully embraced all that is thought to come with her chestnut-ness, but she is 100% honest about how she feels about things. She likes to learn new things and values sincere, clear "horse-speak". While we'd certainly hoped to have been further along in her training by now, the months she's been on rest and rehab are establishing a very solid foundation to continue our slow, but steady, progress. Good things come to those who wait, but not without some elbow grease too.

**Learn more about the Miner Morgans at [www.whminer.org/equine.html](http://www.whminer.org/equine.html)**