

## **A Response to the use of Gallium Nitrate for Navicular Disease in Horses**

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Many of my clients who have horses that have been diagnosed with navicular syndrome have forwarded to me a document entitled, " Oral Gallium Nitrate Restores Soundness in Horses with Navicular Disease – A pilot Study", by George A Eby, and have asked what I thought about it. I have read the article and visited some web forums discussing its use and also did some research on Gallium and Gallium Nitrate.

What follows is my opinion, and should be cited as such. I am not a scientist nor a vet, but helping lame horses with a natural or "holistic" approach (don't be scared of that word- it has been sorely misused). This is my profession. My opinion is intended as food for thought.

In Mr. Eby's Abstract he states, "Navicular disease, also termed navicular syndrome or caudal heel syndrome, in horses causes much foot pain and lameness. Classical treatments often do not provide satisfactory results and the horse remains lame and occasionally the horse must be euthanized. Little is known of the etiology of navicular disease." Etiology meaning the cause. Let's just take a look at what is known about navicular syndrome from a natural horse care view regarding its cause. Muscles, tendons and ligaments in any part of the body, if they are not used, become weak, unable to function properly and atrophy (shrink). The horse's hooves have evolved for an animal that is a prey species. It moves constantly and is rarely off those feet. In a natural or wild setting that spells out to 18-20 hours a day and 20 or more miles. Natural movement in a varied terrain builds the structures inside the hoof- the lateral cartilages, the digital cushion, all the muscles, ligaments and tendons that facilitate the moving of the skeleton. The entire hoof – sole, bars, frog and hoof wall all work together in concert, bending, flexing, expanding and contracting, sending blood in and out of the hoof and assisting as auxiliary pumps for the heart. When able to function as they are designed, they remain healthy. It is when we (humans) confine them to stalls and restrict movement, nail shoes to their feet (in the name of protection) forcing the hoof wall alone to bear the weight of the entire horse, and leaving the sole bars and frog out of action, we disrupt the balance of natural hoof and limb function. This is the beginning of sorrows just around the bend. When the structures in the back of the foot (frog, cartilages, digital cushion) atrophy from non-use, the horse begins to land on its toes. Instead of the leaf spring action of a heel first impact, the shock of that landing is now increased 60-80% up into the bones of the limb and into the body. This is not just a hoof problem it is a whole horse problem! That once floating young horse is now stumbling on the only feet he has. What do we do now? Classical treatment dictates that we put him in therapeutic shoes, mask the pain with medications, give him vasodialating drugs to increase blood flow and return him to work. Like Mr. Eby says, classical treatments often do not provide satisfactory results and the horse remains lame. Why? Because we are treating symptoms and not the cause!! Each time we cover up a symptom with shoes or medications, the problem will blow up somewhere else, and it is these symptoms sprouting all over the horses body that sends him down the path to euthanasia. This is not necessary- not anymore.

The real cause is inadequate development in the palmar (rear) structures of the hoof, and it is this that begins the downward spiral to navicular pain. We have not bred

the foot off the horse, but we have altered the environment his entire being was meant to strive in, and it is here that we need to start to make changes. If you don't use it, you lose it- we have all heard this expression. This is how it is for the horse- especially the hooves. We need to put the entire hoof back into action as it was designed, but we must do it intelligently, especially if it has been sick, and not used correctly for a long time. More on that later.

Now, let's look at gallium nitrate, more specifically the root element gallium. Gallium is a naturally occurring trace element often found in the guaranteed analysis of most chelated trace mineral products, and considered a mineral salt. It is also an element found in the body, but it occurs in a very small amount - trace. Elemental gallium does not occur in nature. So, then how is it produced? Elemental gallium is a by product of aluminum and zinc production from mining and scrap recycling. Gallium nitrate is formed by the reaction of elemental gallium with nitric acid, followed by crystallization from the solution. This compounding process produces the drug gallium nitrate (yes, this is a drug manufactured by a drug company). The drug's brand name Ganite, is used to treat symptomatic hypercalcemia secondary to cancer. It works by preventing the breakdown of bone through the inhibition of osteoclast activity, thus lowering the amount of free calcium in the blood. It is given to people intravenously. The solution made for horses is a liquid that is mixed in the feed.

Mr. Eby's aluminum hypothesis is just that, a hypothesis, which is a supposition or proposed explanation made on the basis of limited evidence as a starting point for further investigation. There is nothing wrong with that, all good science starts there, but what is happening here, in his sincere and very scientifically thorough quest, is that he is still approaching this from a conventional treatment strategy. This treatment is managing inflammatory symptoms with a drug. His drug of choice is gallium nitrate. He does not address the unnatural environment the horse lives in (stall confinement), the damaging effects of shoeing (he only mentions aluminum shoes on these horses specifically), the unnatural processed diet or anything else domestication has thrown at the horse that creates lamenesses like navicular syndrome. His personal horse was treated with gallium nitrate for advanced navicular (lollipops and cones) and suffered several relapses over the past 7 years. Each time the horse was again treated for 2 weeks with gallium nitrate. He does say the horse is "properly shod". When you treat only symptoms, the horse is sound until he is not.

I am not opposed to treating pain or even the use of gallium nitrate for a horse with navicular syndrome, as long as it **includes** the rehabilitation of his diet, environment and the feet he lives and walks on, that is closer to what is natural for his species. I choose to seek out natural and herbal remedies, things that are naturally occurring and natural to the horse like plants, naturally occurring minerals and clays. Sometimes we need to step out and use other methods including medicine, but they should not be used as a stand alone, and only for a short time when we are trying to get the horse to move again with proper body mechanics. We then must give him back to nature- as much as it is within our power. The natural healing forces are within each and every living being that walks this earth, waiting for the cue, and the right environment to do the job. It is our job to set the stage.

Instead of giving our horses temporary and often toxic relief of the symptoms of domestication, let's give them the thing they need more than anything else: Let them be horses! And yes, we can do this in domestication.

Now, getting back to those sick feet, you are probably wondering where do we start? Sick feet means we have a sick horse. So we need to look at the entire horse, and this includes a detailed health history. It's making changes to facilitate natural healing. It starts with knowing the difference between what a horse requires naturally and how the pitfalls of domestication and a lack of understanding effect the horse as a whole. Learn everything you can about the true nature of the horse from the studies that have been done of wild/feral horses. Begin to make small changes. Free them from confinement. Give them 24/7 turnout with the company of other horses (not goats, donkeys or cows). They are a social species and need this for sanity- don't you! There is more to "soundness" than walking without a limp or stumble. Give them a more natural diet. Free choice mixed grass hay, minerals, salt, fresh water and room with the incentive to move in a herd. Have their shoes removed and begin the rehabilitation process with a professional who specializes in natural horse and barefoot hoof care/rehabilitation. Reevaluate everything you do from a conventional standpoint. Compare it with nature. Educate yourself, and by all means know what you are doing and why you are doing it- not because me or anyone else told you so. Ask questions. You need to do this for the health and welfare of your horses. You are the closest thing to "God" for them- you provide their every need. You owe it to them to know what those needs are from their perspective and not from your own convenience or budget. A healthy horse is much more affordable than one that is not. Nearly every health issue that effects our horses are the direct result of what we do with, for and to them. I have said this many times- "When you choose to fight with nature, you will ultimately lose". Just remember, that choice can mean life or death, health or sickness- sounds like vows and commitments, doesn't it? Think about it.

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[www.nativehoof.com](http://www.nativehoof.com)

The Gallium Nitrate Study:

<http://navicular-disease.com/>

Helpful links on natural horse and hoof care:

[www.hoofrehab.com](http://www.hoofrehab.com)

[www.tribeequus.com](http://www.tribeequus.com)

<http://paddockparadise.wetpaint.com/>

Books: (available from Amazon)

Owners Guide to Natural Hoof Care, Jamie Jackson

Making Natural Hoof Care Work For You, Pete Ramey

Shoeing, "A Necessary Evil?" by Dr. Hildrud Strasser

A Lifetime of Soundness by Dr. Hildrud Strasser