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**U**lcers have become an increasingly serious health challenge within all working horses. Here are some points to perhaps bear in mind for dealing with this issue.

## OBSERVABLE BEHAVIORS

When in pain horses will act out in various ways; these particular behaviors are common among horses with ulcers.

**Attitude & training challenges** - Ulcers can actually be the root cause of a multitude of attitudinal training and showing problems. Some horses become withdrawn and sullen, some get crabby or even aggressive, while others will become reactive in work such as getting explosive or more belligerent as a session goes on. Unfortunately, too many of these horses are simply termed "impossible" or "bad" and sold either to an unsuspecting novice or to a killer.

**Colics** - Frequent mild colics or discomfort after eating, especially if grain is on the menu, may also be an ulcer indicator. Such colic pain can then lead to . . .

**Eating Hesitation** - If a horse looks longingly at its food but backs down from actually eating; paces during and after eating; becomes excessively cranky at feeding times; takes a few bites and walks away for a while, etc., you might consider that ulcers are at the root of such behavior.

**Cribbing** - Many horses who crib or chew wood, adopt that behavior in order to relieve the pain in their gut caused by ulcers. It is sort of like a child, when upset or in pain, returning to thumb sucking as a psychological, and perhaps even a somewhat physiological (due to endorphins released), panacea. If ulcers are the cause of a particular horse cribbing, the various collars, straps, muzzles, etc. seem to us to be very cruel techniques for what could be a treatable condition. Most cribbing occurs at feeding time and a British study has shown a significant correlation between cribbing and ulcers; acid formed by a grain meal tends to exacerbate ulcer pain.

**Flank & belly tenderness** - If a horse has any digestive challenge, there is generally a diagonal line visible from the flank up towards the shoulder; very evident in most race horses and work horses, it goes beyond muscling. If you stand facing the flank with your hand on the mane and *very carefully* roll/pinch the flank webbing, there can be an extreme response with an ulcer horse. For horses desensitized to belly rubbing, if yours pulls up and away from your gently rubbing hand, think ulcer.

**Teeth grinding** - This is a great indicator of stress and pain in a horse; especially after eating.

The US Dressage Foundation Journal, [USDF Connection](#), October 2003, contained an article called "Gut Feelings" which suggested the following:

- Travel anxiety such as refusal to load, excitability, even diarrhea
- Misbehaving under saddle; even tightening the girth can cause stomach acid to move up into the sensitive portion of the equine stomach, and once they start moving, the effects are even more pronounced.

- Low level colic, poor appetite, bad attitude can all indicate ulcer problems.

- They also suggest that some horses are just not suited emotionally to the work they are assigned, and can "internalize" by appearing calm on the outside, yet being upset on the inside and manifesting ulcers in this way. Some very talented horses never seem to get past a certain training level, and ulcers can be a reason.

## POSSIBLE CAUSES

It is our holistic viewpoint that "dis-ease" does not happen in a vacuum; there is always reason and that reason generally involves some sort of imbalance. So let us take a quick look at some modern horse management techniques that may be leading to the preponderance of equine ulcers today.

**Heavy Graining** - In February of 1995, an article about stomach ulcers appeared in the AQHA Journal. In it, author Thomas Lenz, DVM. stated:

*"The lining of the human stomach consists entirely of a glandular tissue that secretes acid, digestive enzymes, hormones and mucus that protects it from damage from the acid. In contrast, only about 40% of the horses' stomach is lined by glandular tissue. The remaining 60% is lined by non-glandular tissue that is structurally similar to hairless skin. In horses, ulcers occur primarily in the non-glandular portion of the stomach, which is extremely sensitive to elevated gastric acid levels."*

Dr. Lenz went on to say that two-year-old TB's just starting training had no or minimal gastric ulcers. After 2-3 months of intense training, 90% had ulcers. By contrast, only 37% of horses used for light riding, lessons, etc. had ulcers. Severe illness and the use of NSAIDS like Bute are also well-known causes of gastric ulcers in foals and horses. His conclusion is that the most likely cause of non-glandular ulcers is the *increase in gastric acid production upon the introduction of more grain into the ration*. And a 1988 study concluded that stomach acidity was 60 times greater in grain fed horses than in those fed only hay.

**Common Medications** - There are two common medications that are so heavily used that most people do not even equate them with medicine at all: chemical dewormers and Bute.

When the heavy duty chemical dewormers are used regularly, some even daily, they tend to strip the gut of not only its beneficial bacterial colonies, but also they change the pH balance of the entire GI tract including the stomach. This acidity itself lends itself to ulcerous formations. Additionally, the neuro-transmitter drugs like *Ivermectin* and *Moxidectin (Quest)* can get directly into the bloodstream through the ulcerated tissue and effect nerve damage, either locally or elsewhere in the system. Be very careful in your use of these wormers with *any* horse unless you know it is completely ulcer free. Two **DYNAMITE®** representatives know personally of a couple of situations where ulcerated horses died following Ivermectin use. For more on this subject, see *BASICS:PARASITES* and

**FAQ:IVERMECTIN.**

We ourselves have saved at least two foals very close to death from overenthusiastic Ivermectin deworming. Both had bleeding ulcers and with both, the attending vets advised either euthanasia or immediate surgery. In both cases, the foals, one 8 mos. old and the other an orphan of 3 mos., were dewormed by their respective vets automatically, with no fecal indication (200+), *three times* because they kept losing weight. Each then developed bleeding ulcers, with blood showing heavily in the stool (in the case of the orphan, his kidneys were also bleeding causing rusty colored urine), to the extent they were virtually moribund.

Unfortunately, Bute is such a common medication around the race track and training barns, it is almost a given that every horse is receiving it; sometimes dispensed daily in order for the horse to keep on working despite injuries. Yet bute is a well-known cause of gastric ulcers in horses and foals and even a *single dose* has been implicated in ulcer formation. We wonder just how many fractious working/campaigning horses are simply trying to say they have a stomach ache! For more bute considerations, see **FAQ:BUTE & NSAIDS**.

**Training techniques** - Stress during training is far from a given if the educator truly understands horses and can read them well. Forceful techniques causing fear, discomfort and pain are totally unnecessary since there are so many resistance-free techniques available today. Also, more trainers need to be more sensitive to age-related mental and physical abilities. See **BASICS:TRAINING**.

**SOME ANSWERS**

Some human ulcer drugs have been used (like *Tagamet* or *Prilosec*) but the cost can be upwards of \$600 for even a 2 week period of treatment. Unfortunately, some drugs effective in treating ulcers in the glandular part of the stomach can actually make the non-glandular ulcers worse. Natural methods include:

**Miracle Clay** - Bentonite clay has been used internally for centuries for various GI challenges; **Miracle Clay** is a remarkably pure form. Because it so inexpensive, easy to use, and harmless, many individuals, including us, simply reach for it first in any cases of possible GI tract ulcers, whether diagnosed or not but especially horses with an "attitude". **Miracle Clay** can stop the discomfort and pain associated with ulcers very quickly while it encourages healing. This is what we have suggested with numerous equine ulcer situations including the two foals spoken of earlier and is most definitely a "less is more" approach. For more on **Clay**'s many uses, see **UNIVERSAL PRODUCT PROFILES:MIRACLE CLAY**.

Mix about 2 Tablespoons of powdered **Miracle Clay** with some water (using only glass or plastic utensils and NOT metal) and let sit a few hours until it is about the consistency of mustard. Ideally, the Clay would be syringed into the horse's mouth, but if not feasible, just pour it onto the grain. Some people choose to add applesauce for flavoring, but we suggest adding a teaspoon of **DynaSpark** for both necessary electrolytes and additional flavor. Continue as long as it seems appropriate.

For more serious pain situations, we have found that 1 tablespoon of **Miracle Clay**, activated as above, syringed into the horse's mouth along with 10 cc of **DynaPro** about 2-3x per day seems to help quite rapidly allowing them to get into the

longer term healing process by following the full **DYNAMITE® PROGRAM**.

If there is blood in the manure (it can appear dark and "tarry") we suspect bleeding ulcers. In such cases we have found them to respond very rapidly to 10-20 drops of **Trace Minerals Concentrate** added to each **Clay** portion. Or 20-30 drops added to the feed per day for 7-10 days or so; extreme cases may need that amount each feeding for a day or so.

**Free choice grass hay** - As we routinely suggest, **BASICS:SICS:FORAGE & HAY**, Dr. Lenz also suggests *free choice hay or unrestricted grazing time as being the best cure/prevention*.

**Smaller grain portions** - Dr. Joe Pagan of Kentucky Equine Research, Inc., recommends feeding grain to horses ". . . at a rate of about .3% of their body weight per meal." For a 1,000# horse, that equals 3# of grain (about 2 qts) per feeding, no more. He also advises that "A *hard working or difficult-keeping horse may need to be fed his grain in 4 daily meals to get enough energy into him without pushing him past his starch-digesting capabilities . . . this also means you need to weigh your feed to find out just how much of each type of feed that coffee can or grain scoop holds.*"

Also, feeding grain portions after the hay can allow the hay to act as a sort of "buffer" in the stomach. Wait about 30 minutes (do your watering, tack cleaning, etc. during this time) after haying before giving the grain.

**DynaPro** - Given with each concentrate feeding to working horses, this will help maintain proper pH levels in the GI tract for thorough digestion and support of beneficial bacterial colonies. **BASICS:PROBIOTICS**

**Other considerations:**

- Cribbing, in addition to indicating the possibility of ulcers, can also indicate a mineral deficiency. We have seen total turn-arounds in such behavior by offering, or even force-feeding (1-4oz/day), **Izmine**. In addition to its superb trace-mineral content, it is also high in magnesium which can have quite a calming effect for ulcer sufferers.
- Homeopathic *Lycopodium* can also calm the nervous system and aid digestion in ulcer prone horses. Begin with a high potency dose initially and, as the condition begins to resolve, lower the dose and, as with all homeopathics, stop when clear progress has been made.
- With any GI tract challenge, we always think it best to have the horse checked by a qualified dentist - especially in the case of tooth grinding as that can fracture teeth or cause TMJ dysfunction.
- Also of value can be chiropractic, deep massage or even acupuncture to alleviate both pain and in some cases of chiropractic, even eliminate vertebral impingement on stomach nerves.
- When training ulcer-prone horses, try 30 sprays of **Tranquil** on its daily feed and before each training session.
- Many people regularly give their horses apple cider vinegar on their feed to discourage pests. However for horses with ulcers it can greatly exacerbate the pain. So much so, that some individuals use it as a guide for if an ulcer exists! Once the ulcer is healed, they can most definitely partake of **DYNAMITE® Super ACV** or even the human **Elixir** that some choose to give their horses.

LIKE SO MANY others, you too may find you have a totally different and manageable horse once ulcer pain has gone. ■