

The greatest killer of horses is colic, and since the word colic really describes a symptom (stomach ache), what are the causes and what can we do about it? We would like to share here what we have learned over many years and after having experienced the tragedy of losing a magnificent 2 yr. old to "colic" after a nasty fall which, upon the necropsy, was found to have dislodged his intestines. We have discovered there are many causes of this dread condition and discuss them below in alphabetical order, but first a tip to try while waiting for the vet.

One caution however: A study by Dr. L. Van Hoogmoed at UC Davis reported that Bute, frequently given for ulcer pain or any pain situation including colic, can actually depress motility in the large bowel, leading to impactions and colic. Any time even a dose or two of Bute has to be used, it is wise to follow up an hour later with a dose of **Miracle Clay**.

FIRST AID

A simple thing to do at the first signs of colic (stretching, biting at flanks, kicking at belly, "sad" eyes, rolling but not shaking afterwards, etc), is to simply syringe some **DynaPro**, 10-20 cc's, into the horse's mouth every 15-30 min. The addition of a few cc's (use your own instincts here) of either **Relax** or **Tranquil** seems to increase the effectiveness of the **DynaPro**. A fellow Distributor who barrels, is known on the circuit for getting colicky horses out of trouble *fast* with just this approach.

In addition to the syringing, working the bladder points on either side of the anus where the skin turns into hair can frequently help; you feel a slight indentation when you hit the right spot. This can be more effective if you spray them with **Release**, rubbing in a little clockwise motion.

You can also perform the **Tail Pull** if the horse will let you.

Simply grasp the tail firmly in both hands and pull gently in the same angle/direction of the croup. Lean back into it and hold until the horse releases the pressure. In fact, many horses will actually pull against you a bit to increase the tension before the release. Work the points at the base of the tail the same way as the bladder points. Also, pouring some **Tea Tree Oil** into a flat bottle cap and placing it over the navel, wetting the area thoroughly, can stimulate important digestive acupressure points.

Very frequently when these first aid measures are applied, the horse will be fine by the time the vet arrives, but then it is time to try to discover the "why" of the colic.

ADHESIONS

Adhesions form whenever horses colic or have high gut stress such as ulcers and parasite damage. Blood/protein molecules leak thru the compromised gut wall into the abdominal cavity forming "webbing" that can attach the organs to the interior wall of the abdomen and keep them from moving as they should. This sets the stage for colic.

Adhesions are also a side-effect of colic surgery and are enhanced by the common practice of stalling the horse following such surgery. Many horse owners have had excellent results by walking the horse 2-3 times daily beginning the day following surgery and allowing it to move freely in reasonably-sized space far earlier than is generally suggested. Otherwise, the long term survival of horses undergoing colic surgery is not as high as many would like to think, although enough horses make it through that the expense appears to be worth it for certain individuals. The adhesions formed are one of the main causes of further colic and further surgery.

CYCLING MARES

If you are faced with a seemingly "colicky" mare in season who is eliminating normally, has good gut sounds and bright eyes but just wants to flop down and maybe stretch out flat, or roll a bit and has some muscle quivering, consider cycle-cramping as a possibility. Many mares when in season or ovulating can cramp with just enough discomfort so they feel better curled up into a little ball for a while just like many women during ovulation or menstruation. For these mares, add about 3 ounces **Easy Boy** (some **Tranquil**, too) to warm water and use as a drench.

You might also consider placing such a mare on maintenance **Easy Boy** or even **Breeder Pac**, in addition to the basic PROGRAM, which may help them to ovulate more painlessly. Many of these mares never cramp again after these extra supplements are added to their diets.

DENTITION

Horses who cannot chew well [see *Basics: Teeth*] are prime candidates for colic. It is wise to work with an Equine Dentist who is specially trained in fully balancing mouths. For toothless horses, you might also consider daily

DynaPro, PGR "soup" (simply add generous amounts of warm water to the appropriate PGR amount for that horse) and grass hay pellets—or run over your hay a few times with a lawn mower.

GAS COLIC

Being fed too much grain at a time can cause undigested grains to enter the hindgut where, instead of digesting, they will ferment. This is one of the many reasons why we, and numerous researchers concur [see *Basics: Grain*], suggest feeding no more than about 1.5# (1 qt.) of grain to a 1000# horse at a time. If more grain needs to be fed, it is far wiser to increase the number of feedings per day or switch to PGR which can be fed at far less amounts with far greater results than straight grain or sweet feed. If even more calories are required, additional **HES** is our preferred way to go.

This colic can also be caused simply by the stress of competing or moving in which case twice daily **DynaPro**, along with a proper diet, acts as an excellent preventive.

HOOF BALANCE

Interestingly enough, pigeon toed horses have *impaction* colics more often while horses that toe out are more prone to *spasmodic* colic. Regardless, basic hoof balance [see *Basics: Hooves*] is vital because of the different effects on the digestive organs by ting points (meridian beginning and end points) on the coronet bands. Many have found recurrent colics disappear upon natural hoof trimming as suggested by Lyle Bergoelen's *The Hairline Tells It All*, Hiltrud Strasser, DVM's *A Lifetime of Soundness*, and Jaime Jackson's *The Natural Horse*.

IMPACTION

A bowel impaction can be caused by too much dry matter in the intestine and not enough fluid to keep it moving along. Frequently it is caused by the horse getting into something it should not which means keeping gates and doors horse-proof. Even more frequently, it is a *dehydration* caused by too little water consumption.

Horses can easily drink between 10-15 gallons of water per day with hard-working horses and lactating mares consuming far more than that. If the water is dirty, smells bad due to chemicals, is new to the horse, is too cold or too warm, or simply unavailable in those quantities, you can be courting dehydration. To encourage appropriate water consumption in winter, many horses prefer having their water warmed by heaters. In summer, tanks should be scrubbed and filled with fresh, cool water frequently. Having shade by the tank is a good idea as long as surrounding trees do not drop too many items (leaves, seeds, squirrels, etc.) into the tanks. Hose filters can eliminate troublesome chlorine taste and smell and other chemical additions horses tend to shy away from. Many have found that adding 1 pint per 50 gal water of **DYNAMITE® Super ACV** (raw apple cider vinegar) encourages proper drinking with the welcome side effect of a cleaner tank.

Many vets suggest giving a horse reluctant to drink appropriate amounts of water some extra salt in their feed. If this is your choice, it would be wise to use the **NTM Salt** and never force more than a teaspoon per day although offering it free choice is far more preferable. Forcing some **Izmine** at about 1 oz. per day might be better. Best would be simply pouring a half-ounce of **DynaSpark** on daily grain rations which gives the horse all the sodium necessary to encourage appropriate fluid uptake.

Some barn managers are under the false impression that feeding **beet pulp** will somehow hydrate horses. We disagree. Aside from the numerous chemicals used in both beet growing and sugar extraction and the fact that high carb levels are suspected in cases of equine diabetes, the fact is that digestion of beet pulp requires 4 molecules of water for every molecule of pulp. Unless the pulp is thoroughly soaked before it is fed, it can actually dehydrate the horse further because of the greater need for water. It is far simpler, far more effective and far healthier for your horse to simply provide free choice grass hay and free choice, cool, clean water.

For horses who have recently moved to a much warmer climate than they are used to, or if your area is in the middle of a heat wave, a horse may not be used to drinking water in the amounts it will now need. Another way to get moisture into your horse is by feeding a PGR 'soup' by wetting the pellets as much as the horse will tolerate. This can be handy in cold weather too since cold tends to depress natural thirst instincts. Again, adding ½ oz. **DynaSpark** to each feeding will also encourage correct water consumption and also provide needed electrolytes.

Impaction colic is very serious and can lead to *torsion*, a twisting of the gut which is excruciatingly painful. While there are some indi-

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viduals who can actually roll an animal and even energetically reposition a twisted gut, that is a rare circumstance. In the past, we were told to keep a horse walking to keep motility at its peak, but modern wisdom is saying to allow the horse to roll and work itself somewhat apparently in an effort to untwist the intestine. Once the torsion has set in, that section of the intestine will necrotize or die due to lack of blood flow. Unfortunately, there seem to be only two answers to a firmly twisted gut and they are surgery or euthanasia.

Impaction can also be caused by spasms in the gut or in the esophageal sphincter. Magnesium is pretty much a given for muscle spasms so **Easy Boy** would be a great option when this is a problem (refer to Cycling Mares section). Also, no grain (except maybe a little **PGR**) and be very aware of total mineral balance. Unfortunately, there are also tumors, especially in grays, which can wrap around intestines thus causing fatal impactions.

KIDNEYS

Whenever you suspect kidney involvement, reduce protein levels, ie: no alfalfa hay or high protein grain mixes. Make sure you inspect geldings for a "bean" in the groove around the urethra which can cause a sore back. These "beans" can actually grow to the size of a golf ball obviously restricting the urine flow which in turn leads to infections because the urine is never fully cleaned out. Also be wary of over-cleaning the sheath interior especially with chemical substances which can compromise the natural cleaning action of the oils and pH balance. Healthy stallions are self-cleaning.

PARASITES

An overabundance of parasites can also cause stomach aches or colic but do a fecal to be sure before administering any dewormer. We think the best parasite treatment is prevention through cleanliness and nutrition. Keeping the correct intestinal pH balance by feeding **DynaPro** and all the **Free Choice** organic minerals goes a long way in parasite control. The **Miracle Clay** in both the **PGR** and the **1/2:1** also helps control parasites by electrical charge and many individuals simply add a ½ teaspoon **Clay** daily as insurance. Another deterrent is ½ teaspoon daily of **Excel**; many refer to it as their "daily wormer."

Parasite activity will increase on the full moon which is why that is a good time to administer herbs such as **Herbal Tonic** or even a chemical dewormer. Before administering a chemical dewormer to a horse with serious infestations, be sure to heed the warning about them in the ulcer section. We ourselves will only consider Safeguard as a possible chemical addition to the natural parasite control and that is only if a fecal performed two weeks following herbal treatment shows parasite levels above 200.

SAND COLIC

In certain parts of the country, sand ingestion can be a serious problem with the resulting sand pockets causing severe intestinal distress. Traditionally horses at risk have been fed *psyllium* daily for **one week per month**, but the University of Florida has recently found *psyllium* fed **one day per week** is better than on a daily basis for getting sand out of the gut. They also discovered that the **very best way to move sand out of the gut is free choice grass hay**.

Some owners prefer to feed hay/grain in wall-mounted feeders to avoid sand, but since horses are grazers, this can place an undue stress on their cervical vertebrae possibly initiating thyroid malfunction, ewe neck and breathing problems. Far better to feed ground level on stall mats held in place with 4X4 timbers on the borders or some such device that will work for you; we use old water tanks no longer functional for holding water.

Additionally, many horses will ingest sand trying to find a mineral balance they may be lacking. Frequently this imbalance can be eliminated by offering the **Free Choice** organic minerals: **NTM Salt, 1:1, 2:1** and **Izmine**. Some barns believe that softening the water is doing the horses a favor, but in reality, it removes ALL minerals from the water to the point where it is questionable whether or not any supplementation can make up for the lack.

SPINAL SUBLUXATIONS

All the nerves in the body emanate from the spinal column. A slight deviation, or subluxation, of vertebrae, sometimes caused by muscles spasms from ill-fitted saddles, etc., can affect the nerves running to various organ systems of the body including those of digestion. In fact ribs can even be displaced enough to affect numerous systems. In our opinion it is wise to get a good, well-recommended equine chiropractor to check out your horse on an annual basis and certainly in cases of recurring colic.

ULCERS

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**.

A 1988 study concluded that stomach acidity was 60 times greater in grain fed horses than in those fed only hay. Symptoms range from mild discomfort to severe colic. Decreased appetite, some weight loss, teeth grinding are the milder symptoms. The severe colics usually occur at feeding time. Some human ulcer drugs have been used (like Tagamet) but the cost can be upwards of \$600 for even a 2 week period of treatment. Unfortunately, some drugs that are effective in treating ulcers in the glandular part of the stomach can actually make the non-glandular ulcers worse. Prevention is better than cure, says Dr. Lenz who recommends **free choice hay or unrestricted grazing time as being the best cure/prevention**.

We think that if a horse is under stress and on heavy grain like at the track or events, a syringe of 1 T **Miracle Clay** activated with water according to directions could be an excellent preventive; or simply pour it on the grain ration. Of course there also is clay in the **PGR** (another reason for it being so superb for performance horses) and in the mineral **Free Choice 1:1** and **2:1**, but extra may be required under such stressful circumstances or for certain individuals. Generally speaking, follow this procedure, along with daily **DynaPro**, for 30 days, and then any time the horse is stressed by competition, or is being harassed while eating by other horses, etc.

Another caution, since so many performance horses have ulcers, is to be aware that the neuro-transmitter drugs like *Ivermectin* and *Moxidectin (Quest)* can get directly into the bloodstream thru 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. Some **DYNAMITE**® representatives know personally of two situations where ulcerated horses died following Ivermectin use.

UNTHRIFTINESS

Following the **DYNAMITE® Program** with **free choice** grass hay (most owners do not give near enough hay, parceling it out like alfalfa) and the **Free Choice** organic minerals (**NTM Salt, 1:1, 2:1** and **Izmine**) with little grain and few to no chemicals in feed or medications plus abundant at-free exercise, seems to us to produce the healthiest horses in the most natural way so few colics will ever arise. We have seen it take two years and more to fully balance a horse nutritionally, although positive changes can occur quickly; have patience.

WEATHER COLIC

When the temperature varies more than 40 or 50 degrees within a 24 hr. (or less) period, many horses will begin to colic. In fact, most vets will tell you they cannot keep up with the colics during those times. Martin Goldstein, DVM says that the positive ions found when the barometer drops, cause the body to repel positively charged calcium which is then dumped in the urine. Since the stomach and gut muscles are dependent on calcium to keep their tone (*turgor*) in order to work properly, loss of enough calcium in the bloodstream can cause the digestive tract to contract improperly. Horses, if offered the **Free Choice** organic minerals, may be able to eliminate this concern on their own while others may need some **Easy Boy**. Increasing **DynaPro** usage to twice a day in susceptible horses during extreme weather changes can also help keep both peristalsis and bacterial colonies at optimum levels.

WHEN ALL ELSE FAILS . . .

Check out geopathic zones, water purity (chlorine can keep the beneficial bacteria in check), etc. The Non-Toxic Farming Handbook by Philip A. Wheeler & Ronald B. Ward contains a wealth of vital information about those and many other considerations.

Appropriate diet and plenty of exercise both at free and under command, plus strong genetics, seem to be the best defenses against most colic. At the very least, a more natural regimen should minimize the occurrence of it and, in many circumstances, can eliminate it altogether. ■