

Colic—the most common and often serious health problem faced by horse owners. In a 1999 national study by the United States Department of Agriculture, National Animal Health Monitoring System (NAHMS), it was estimated there were 4.2 colic events for every 100 horses. Of these colic events 11.0% were fatal to the horse! In 1999, colic treatment and losses cost horse owners over \$115 million. Often horse owners find themselves dealing with a serious and expensive health problem and they don't understand the underlying causes of colic.

Colic is really not a specific disease but a term that is used to describe a clinical sign, a symptom. The onset of colic signs are usually the result of a disease process taking place in the digestive system of the horse. What usually happens is a section of GI tract becomes distended, the wall of the bowl stretches,

and the stretching causes pain. The horse responds to this abdominal pain with the common early signs of colic: playing with water, refusing to eat, looking at or biting flanks. If the underlying cause of distension is not relieved, the colic signs become worse, the horse will kick at their belly, get up and down and roll, or have a saw horse position (hind legs stretched out as if trying to pass urine). In very serious colic the horse will start to go into shock, the pulse rate will increase, the gums become very dark and the skin becomes dehydrated. If the shock becomes worse or if the digestive tract ruptures the horse will become very pained and is euthanized or dies. Horses tend to have more problems with colic that other species. This is due to

the design of their digestive tract. For example: horses cannot vomit or regurgitate due to the shape of their stomach. Most of the fiber digestion takes place in the cecum and large intestine; all together these organs are 29 feet long and hold 130 quarts in the mature horse. Also, horses seem to have a lower tolerance to pain than cattle or dogs and cats.

What are the common disease problems found in the digestive tract that lead to the onset of colic signs? All of these will cause distension of the GI tract and colic pain.

Spasmodic This is the most common and is often seen with weather or feed changes. Parts of the GI tract go into a spasm (like muscle cramps) causing pain. This type of colic often responds well to simple medical treatment

Impaction This is the blockage of the GI tract by food. Impaction will respond to treatment unless the blockage is extensive, then surgery is required

Ileus This is a term describing the GI tract (usually the small intestine) when it simply stops moving food along the tract. This is usually the result from damage the blood supply to the small intestine from the migration of small strongyles. If a large section of the intestine is damaged, surgery is required.

Obstructive masses These are masses that can block the tract. They include parasites (bots, roundworms, and tapeworms), foreign material (hay

string, plastic bags), sand (common in Arizona) and enteroliths. Enteroliths look like smooth river stones and are formed in the large intestine of horses.

Displacement Part of the GI tract is trapped or twisted, the affected area will lose blood supply and die, surgery is required!

Fermentation Excessive gas is produced causing distension. This usually happens in the stomach or large intestine. If the production of gas can be decreased and the trapped gas moved out, surgery is not required.

With so many possible causes of colic, it is difficult for horse owners to know if they are dealing with a simple spasmodic colic, or are seeing the early signs of a life-threatening problem for their horse. What you should do at the first sign of colic is to remove all feed and water. If the horse is

trying to roll, walk the horse; if the horse is quiet allow them to stand and watch. Watch for the horses' general attitude and degree of pain and check the heart rate. If the pain is getting worse or if the horse has an elevated heart rate (normal is <50 beats/minute, moderate colic is 75-80 bpm, severe colic is > 100 bpm). At any indication of the colic getting worse, veterinary care should be called as soon as possible.

As treatment for colic can be very expensive, horse owners should do as much as possible to prevent colic. The American Association of Equine Practitioners (AAEP) has developed 10 tips for prevention of colic. Following these guidelines will not prevent all colic cases, but should reduce the chance of your horse developing colic.



Colic in the Horse

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Ten Tips for Colic Prevention

1. Establish a daily routine of feeding and exercise, and keep to it.
2. Feed a high quality diet that is high in roughage, although finding something other than alfalfa hay can be a problem in Arizona.
3. Avoid feeding excessive grain and/or energy dense supplements. A good guideline is that roughages should provide twice as much of the diet energy as concentrates.
4. Try to feed hay free choice and limit concentrate to two or more smaller feedings. Avoid one single large feeding.
5. Implement a regular parasite control program.
6. Daily exercise or turnout. Any change in intensity or duration of exercise should be gradual.
7. Provide fresh clean water at all times, BUT do not over water excessively hot horses.
8. Don't feed on the ground!
9. Check hay, bedding and pasture for possible toxicities such as blister beetles, noxious weeds and foreign matter.
10. Reduce stress. Horses in high stress such as changes in workloads, environment, transport or shows are at risk for developing colic.