



Horse Program

Providing research-based information to Minnesota Horse Owners

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Colic indicates a painful problem in a horse's abdomen. Horses are naturally prone to colic and many types of colic cannot be prevented. However, there are some relatively simple steps that can be taken to reduce the risk of colic in your horse. The following nine steps are recommendations summarized from numerous research studies evaluating several risk factors for colic in horses. Following these nine steps should reduce the risk of colic, but are not guaranteed to eliminate it.

STEPS TO REDUCE THE RISK OF COLIC

1) Always have Fresh, Clean Water Available

Horses without water for as little as 1-2 hours, were at increased risk of colic in one study. The risk was especially high for horses over 6 years of age. Additionally, horses have been shown to prefer to drink out of buckets compared to automatic waterers, likely due to the ability to ingest large quantities quickly. In the winter, it is important to ensure automatic waterers and other water sources have free flowing water. In colder weather, horses drink more water if it is warmed. Twice daily addition of hot water to buckets works as well as continuous warm water. When traveling on longer trips, stop to let horses drink and/or



Figure 1. A colicky horse will commonly bite at its side and roll.

have a veterinarian pretreat them with mineral oil before starting.

2) Allow Pasture Turnout.

Horses that have access to pastures have been shown to have a lower colic risk than those without pasture access. Feeding from round bales increased the risk of colic in one study. This increased risk may have been related to decrease in quality in the round bales due to exposure and storage (stored outside), types of hay baled, and/or uncontrolled ingestion of certain types of hay. More information on pasture management and hay is available in the two following fact sheets: "Selecting and Storing Horse Hay" (publication #08463) and "Managing Established Horse Pastures" (publication #08460).

3) Avoid Feeding on the Ground in Sandy Areas.

Horses may ingest enough sand to irritate their intestines. Feed in tubs or hay racks. Place rubber mats or catch pans underneath racks to enable horses to get the scraps without getting sand.



Figure 2. Floating a horse's teeth.

4) Feed Grain and Pelleted Feeds Only As Needed.

Colic risk increased 70% for each pound increase in whole grain or corn fed in some studies. Horses eating pelleted feeds and sweet feeds are also at increased risk for colic compared to horses on a 100% hay diet. More information on basic nutrition is available in the following fact sheet: "10 Things Everyone Should Know About Nutrition for the Mature Horse" (publication #08548).

5) Watch Horses Carefully for Colic Following Changes in Exercise, Stabling, or Diet.

Colic risk increases during the two weeks that follow changes. Farms that make more than four changes in feed in one year have three times the incidence of colic than farms with less than four feed changes. Even changing the batch of hay can increase the risk of colic. Make only gradual changes in diet, housing, and exercise whenever possible. To make changes in feed, mix $\frac{1}{4}$ new with $\frac{3}{4}$ old for about seven days, then increase the percent of new feed gradually.

6) Horse's Teeth Should Be Floated Every Six Months.

This ensures good ability to properly and thoroughly chew hay and other feed stuffs.

7) Control Parasites.

Horses on a daily wormer or horses regularly dewormed are less likely to colic. More information on vaccinations and deworming is available in the following fact sheet: "Vaccinations and Deworming" (publication #08540).

8) Closely Monitor Your Horse and Care for it as Much as Possible Yourself.

Owners who take great interest in their horse's care on a day-to-day basis have fewer incidences of colic. Early signs of impaction colic include dry fecal balls or fecal balls that are smaller than usual. Some horses with impactions, may go slightly off feed (particularly off grain) or change drinking habits during the early stages of colic. Subtle signs will be picked up more quickly if you are familiar with what is normal for your horse.

9) Watch Broodmares and Horses who Have Colicked Previously.

Watch broodmares closely in the two months following foaling. Monitor any horses that have been ill or have colicked before as all are at an increased risk of colic, and early treatment is essential. Treatment with phenylbutazone (bute) can also make horses prone to types of colic and can hide early signs of colic. Discuss the appropriate levels of bute with your veterinarian and avoid using large amounts or prolonged treatment whenever possible.

Above all, be a proactive owner. If your horse is being placed at unnecessary risk for colic, try to adjust the situation. If your horse does colic, appropriate and timely care makes a great deal of difference in the outcome.

IF YOUR HORSE COLICS

If you know how to take vital signs, this information can help your veterinarian determine how severe the colic is before arriving at the farm. In particular it is helpful to know how to check your horse's temperature, heart rate, respiratory rate, mucous membrane color, capillary refill time, and gut sounds. While you are waiting for the veterinarian, remove the horses' food to prevent additional problems. More information on vital signs is available in the following fact sheet: "Equine First Aid: What to Have and How to Use it" (publication #08459).

If the horse is crampy, or it is early on in the colic, walking can help provide pain relief and encourage defecation. Walking can help prevent horses from rolling. Rolling can lead to injury to both the owner and horse. If the horse wants to get down and roll frequently, it is better to be in an open area instead of in a stall where they may become cast. However, if the horse is uncontrollably thrashing, stay out of the way. It is unclear whether walking a horse during a colic reduces the severity of colic.

Some horse owners believe that if a colicking horse has a temperature, then the horse should not be walked. However, this is not the case. Some types of colic are associated with fevers, and it is okay to walk the horse to keep them comfortable while waiting for the veterinarian to arrive. However, diseases such as pleuritis, tying up, and laminitis may present signs similar to colic and walking will only confound the disease in these situations. In general, if the horse feels better walking, do it. If walking seems to make the horse worse, or if you detect signs of rib pain, foot pain, or muscle pain, then stop. Neither you nor your horse should walk until exhaustion.

When your veterinarian arrives to examine a colic, they will try to determine the severity and the

general type of colic. Keep in mind, that its very unusual to be able to diagnose the exact cause of colic. Your veterinarian may be able to determine if it is more likely to be an impaction or gas colic, or if it may involve damaged bowels or toxemia.

Most (75%) cases of colic readily respond to treatment and most are due to gas colic or probable impactions. Veterinary treatment usually involves controlling the horse's pain with analgesics, softening the impaction with mineral oil or other laxatives, and encouraging motility by having you walk the horse. In general, horses should not be fed hay or grain until they pass manure and the colic has resolved. If an impaction is present, more food worsens the constipation the horse is experiencing. Walking and grazing on a small amount of fresh grass may help stimulate bowel movement. Most cases of colic will respond to this type of treatment within a few hours. A few horses will need additional fluids for rehydration (oral or intravenously) and may need to be reexamined. If the colic pain is more severe and requires intensive treatment, a veterinarian may recommend the horse to an equine hospital equipped for intensive care and abdominal surgery.

At the hospital, many of the tests will be repeated to assess how the horse has responded to your veterinarian's treatment. Constant monitoring of the horse guides the decision to continue medical treatment, or perform surgery to diagnose and treat the problem. Success rates after colic surgery vary with the type of intestinal involvement. In general, horses have better than a 75% long term survival rate after colic surgery, with early diagnosis and proper treatment.

Most colic episodes will fully resolve with no long lasting consequences. However, if toxins are released into the abdominal cavity or bloodstream, or if colic surgery is required, the horse will be at risk for other problems. Many horses will have diarrhea following intestinal disturbances. If a

horse has colic surgery, it will also be watched for incisional infections, infections within the abdominal cavity, and motility disturbances. Some horses will get motility problems following small intestinal surgery that can significantly prolong nursing care and hospital stays. Performing surgery also places a horse at risk for developing intestinal adhesions. Adhesions may make the intestines stick to each other or be placed in abnormal positions. Some adhesions can cause repeated bouts of colic. In general, surgery for large colon problems has a greater success rate than surgery for small intestinal problems.

Keep in mind that each colic is unique. Horse owners need to balance the factors involved in their horse's care, feeding, and activity level. Work with your veterinarian and barn manager (if boarding) to determine the best plan for your horse. Revisit those plans annually to make sure adjustments aren't needed due to changes in activity, feeding practices, illness, and/or other management factors.

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Figure 3. Colic surgery