

Colic Questions Answered

Whether it's a mild stomachache or a surgical situation, it's good to know the basics of one of the most common equine ailments.

By **Lindsay Berreth**

Colic is one of the scariest words in a horse owner's lexicon. Visions of a distressed horse rolling, twisting its intestines and being rushed into surgery spring to mind, but statistically you're much more likely to deal with minor episodes.

"I think people understandably remember the ones that have gone off to have surgery or needed to be in the hospital for intensive medical care, and the majority, thankfully, are these spasmodic gas colics or sometimes impactions and things like that," said Nora Grenager, VMD, DACVIM, internal medicine specialist at the Steinbeck Peninsula Equine Clinics and medical director of their Menlo Park hospital in Menlo Park, California. "The majority of colics respond to just medical therapy at the barn. It's helpful to keep that perspective."

Whether it's severe or mild, it's useful to know how to deal with a horse that's showing signs of colic and how to prevent it in the first place.

We asked Grenager and Diana Hassel, DVM, Ph.D., DACVS, DACVECC, associate professor of equine emergency surgery and critical care at Colorado State University, some common colic questions from COTH readers.

COTH: What are some ways to prevent colic?

Grenager: One of the biggest things we can do is have our horse on a good, regular feeding and exercise schedule. We all know they benefit from a routine, and having more frequent, smaller meals throughout the day is helpful, although not always practical. For large parts

of the country it's just hay, and if it's possible to spread that into three or four meals instead of two big meals, that's useful.

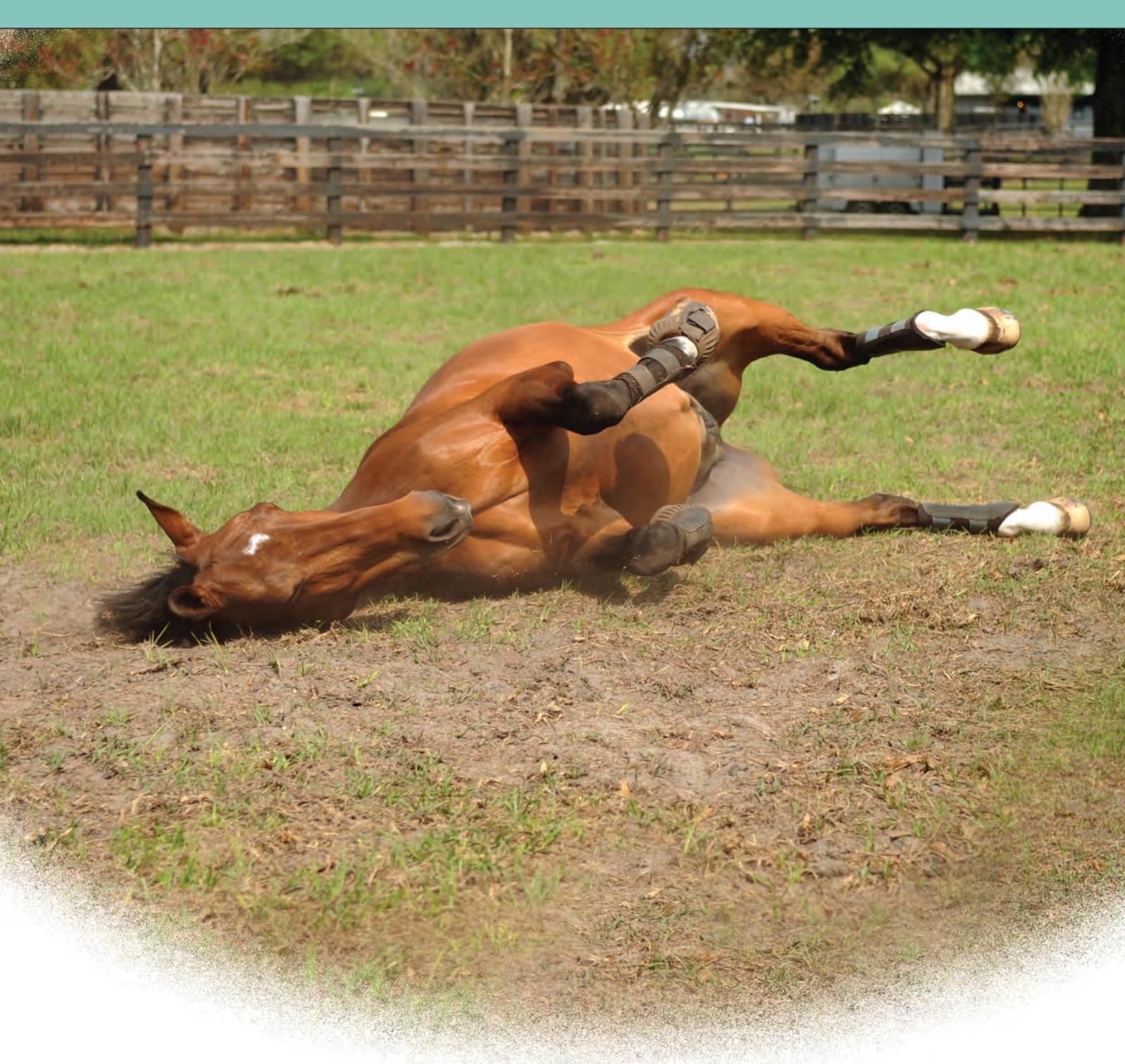
The spreading out of feeding helps because horses were designed through evolution to be walking and grazing 24/7/365, so their GI tract would always like to have some incoming food.

Having a regular exercise schedule or, if a horse is retired, at least having routine turnout time [also helps], because we know that when they move around that helps with their GI motility and getting rid of excess gas that forms.

When there are going to be times of stress or things that will change their routine there are some additional things you can coordinate to try to mitigate the risk of colic:

- A prophylactic dose of omeprazole if the horse is prone to, or has been previously diagnosed with, gastric ulcer syndrome. I typically recommend starting a day or two before the stressor, if possible or known, and continuing for a day or two after.
- Adding lots of water to the normal grain or pellets to make a "soup" or adding a daily mash or dose of powdered or paste electrolytes to increase water intake.
- Bringing your own hay and not adding new feeds, especially grains or pellets. A pre or probiotic GI supplement may also help, but all of this should be discussed with your veterinarian.





What are the most common signs of colic?

Hassel: A reduced appetite, not finishing up their breakfast, for example. Leaving some food behind might be a sign that they're not feeling well. Some more subtle signs would be lying down quietly, more so than what you're accustomed to. Sometimes they'll do [the Flehmen response] where they lift their lip up, and that's a sign of pain in some horses. From there it could progress to looking at their side, kicking their belly, pawing and rolling. Horses that are colicky and get up from rolling won't do their shake.

Lying down, rolling, pawing, and looking or kicking at the belly are all common signs that a horse is suffering a bout of colic.

MOLLIE BAILEY PHOTO

Grenager: I think the most important thing is knowing your horse because horses all do it differently. Some are really stoic and will have very mild signs even with a severe condition, and others will have a tiny gas bubble and look like they're not going to make it through the next five minutes.

The signs can be variable. It can be really mild, such as not eating or not as much manure in the stall as there was or the horse being a little bit quiet to more active signs like pawing or Flehmen. Some will occasionally do that for fun, so knowing your horse is important. Are they stretching out or looking at their flank? Some will look like they're repeatedly trying to urinate and stretch out. Then there's the more severe stuff like getting up and down and rolling or thrashing violently.

Should I give medication to my horse if it's showing symptoms of colic?

Hassel: I don't recommend every horse get Banamine early on by their owners because it's important they don't have any evidence of dehydration because they can end up having injury to their kidneys.

Grenager: Typically we don't have people administer any medication while they're waiting except in really rare circumstances.

Is there ever a time when you would recommend an owner give their horse medication for colic before seeing a veterinarian?

Hassel: I would recommend they at least speak with their vet on the phone before administering any medications. If the colic is mild, the vet may recommend they try a dose of Banamine first, and if the colic persists, they should come out and do a full examination.

For moderate or severe colic signs (e.g. consistent pain, laying down, rolling, etc.), I would recommend they always have a vet come out. Again, the vet may suggest that they give Banamine at the time if there is any delay in getting to the farm.



Should I walk my horse?

Grenager: If you can safely walk the horse and the horse is willing to walk, it could help. We know that the most common type of colic is spasmodic or gas colic. If you can walk them around they might be able to maneuver things and pass it out that way. If the horse does not want to walk, maybe it's not true colic, and you don't want to force them.

Hassel: Walking can sometimes help get things moving again with motility. You don't want to walk them until they're exhausted, especially if it's early in the process. I would avoid giving them any food during that time, but it's probably OK to have access to water while you're waiting.

Does rolling twist the intestine?

Grenager: I usually say as far as we know, no. They're rolling because they have a twisted intestine. It's hard to prove, but it seems like they do it because it's already happened.

If your normally greedy horse is reluctant to eat or finish his meal, he may be colicking.

AMY DRAGOO PHOTO

The colon can displace, and one type is called a left dorsal displacement where it gets stuck up between the spleen and the kidney. In that situation, there are two different non-surgical ways to try to treat it. One is you administer phenylephrine and longe them around, and that shrinks the spleen down and allows the colon to bounce out of that spot. The other is to anesthetize them and do a very specific type of roll to try to hold the spleen in place and move them so that the intestines fall out of that spot.

Hassel: I try not to let them do a lot of rolling on their own just because the colon can move around quite a bit when they roll. Sometimes that might be good if it's out of place; that's probably why they do it, but it could lead to a more severe colic as well. The colon is only attached in one location, so it has some freedom to move around, and that's why we have so many problems with horse colic, because the colon moves into places where it shouldn't be, then of course it can twist. It's just not really a well-designed intestinal tract. It has a lot of mobility compared to some other species.

Do temperature changes cause colic?

Hassel: We feel like, anecdotally, we tend to get a rash of colics when there's an abrupt change in temperature, but to my knowledge it hasn't been proven from studies that have tried to look at weather and colic.

We get the impression that something happens that can contribute to increased incidents of colic. I would be more concerned about a sudden heat wave and inadequate water consumption leading to some impaction type of colic. That would be the most common thing I've recognized.

I get a general impression that any abrupt change in temperature will have a tendency to see a little more GI problems. It's probably related to changes in their normal gastrointestinal bacterial populations that might occur related to maybe feed and water consumption or something along those lines.

Grenager: I think yes. When there are extreme highs and lows we definitely see more colics. I think that's a real perception, and that's probably because water intake is hugely important. So if it's been really hot, and the

Health Gains with Haygain

"Haygain ensures that our horses get what they need and nothing that they don't from their hay."

-Beezie Madden

*World Cup Finals Champion
2019 USEF International Equestrian of the Year*



Discover the connection between hay and health:

- ✓ Protects & improves respiratory health
- ✓ Rids hay of up to 99% dust, mold, bacteria & fungi
- ✓ Improves hydration & palatability

Ask about Haygain's ComfortStall
Orthopedic Sealed Flooring.



Official Respiratory
Health Supporter
of the USEF

USEF Member
Perks Discount!

Use discount code **COH20** at check-out

www.haygain.com | 888-307-0855

HAYGAIN

horse has been drinking well, and then you have a super cold night, and they're not very thirsty when it's cold, and they don't drink as much, or vice versa, both of those factors can set off abnormal digestion and colic.

Can riding too soon after a large meal cause colic?

Hassel: Not to my knowledge. The only thing I'd be concerned about is if they're getting adequate water consumption. When they eat, that results in higher fluid requirements than when they're off feed. I don't think riding after eating in itself should lead to colic.

Grenager: These days I often advise people that a little bit of hay or a little bit of grazing right before riding is good. I probably wouldn't do a big grain meal right before riding just because that takes a lot of energy to digest and diverts it from where else they might need it. Especially for horses that are prone to gastric ulcer syndrome, having a little mat of hay or grass sitting in their stomach is useful when they're out moving around. It protects the upper squamous part of the stomach from acid that

splashes up from the bottom part of the stomach when they're exercising.

Is there a common cause of colic in senior horses?

Hassel: The big one would be the strangulating lipoma. We see that in older horses; most of the time they're at least 15 years old. It's a fatty tumor that's kind of on a stalk, and it wraps around the small intestine usually and strangulates it. We do surgery on those if surgery is an option for the owner. Older horses do fine with colic surgery, as well as younger horses, but the only worry is standing up from the recovery. I worry more about them breaking a leg or something like that because their bones might not be as strong, and they don't have as much general muscular strength to protect them from injury. But they otherwise do as well as a middle-aged or younger horse. That type of surgery is unfortunately quite expensive because we have to remove affected bowel, and they tend to be sick for a while. It's whether the owner wants to put them through that too. You're looking at \$9,000-14,000 for that surgery.

Targeted Nutrition for *Performance & Recovery*

Vitamin E is an essential component of body-wide antioxidant defenses and plays a vital role in immune, cardiovascular, circulatory, and neuromuscular functions. Nano-E® is a liquid natural-source vitamin E that utilizes liposome encapsulation and nanodispersion to ensure superior bioavailability.

Elite athletes know coenzyme Q10 is a powerful antioxidant that improves aerobic energy generation and protects against muscle damage. Nano-Q10™ is a rapidly absorbed source of coenzyme Q10.

[Learn more at ker.com](http://ker.com)

"I rely on Nano-Q10 from KER to ensure I'm supporting my winning event horses with the latest in equine nutrition science."

Liz Halliday-Sharp, International Eventer

Developed by Kentucky Equine Research®
World Leaders in Equine Nutrition



859.873.1988 • info@ker.com

Is there an age that's too old for colic surgery?

Hassel: No. We do take everything into consideration, but in the end it depends on the owner. If they suffer from PPID [pituitary pars intermedia dysfunction or Cushing's disease] or maybe they have a severe lameness, those are other things the owner might think about if they want to put them through a procedure where they're going to be suffering for at least a period of time.

Grenager: If the horse is otherwise healthy and in good condition, age itself is not an issue. We did surgery on a 34-year-old horse when I was 33, and I remember thinking, 'This will be the last time we do colic surgery on a horse that's older than me!' The horse did great.

It's always a conversation about other factors with the horse, but age itself is not a factor.

What percentage of horses recover successfully from colic surgery?

Hassel: I would say 80 percent. That covers the more challenging cases and the ones that have a good

prognosis. Some are 90-plus percent if it's a simple, non-strangulating type of thing. Then they may be down around 50 percent if it's a lot of dead bowel.

Grenager: I tend to think of surgical colics as whether it affects the large intestine or the small intestine because the prognosis is a little different between those two categories. For large intestinal surgeries we tell people it's a 90ish percent prognosis for return to full normal life and career over time. In general for small intestinal colics I tell people 70 percent prognosis, and that's because the things that tend to happen to the small intestine that require surgery often involve resection or removing some of the damaged intestine. They can be sicker and have a slightly tougher recovery period.

Are there differences in treating the small intestine versus the large intestine?

Hassel: The post-operative care and the level of illness is usually quite different. The small intestine is prone to not working very well after it's had a problem, whether it's strangulation or something where it's obstructed

but the blood supply is OK. The big complication is called ileus, where they get inflammation, and the small intestine no longer moves the fluid through it very well. Those are horses that we put a nasogastric tube in, and they're losing a lot of fluid through their stomach and small intestine, so they can be very intensive cases.

Non-strangulating large intestine cases are ones that are most likely to have a very simple, straightforward prognosis, but the ones that have strangulating large intestinal obstructions where they're really sick, it's really painful. If you catch them really early they do well, but if the damage is too far gone, if the colon is completely dead, we often can't save those horses even with all the money in the world because



Dandy Products
PROUDLY MADE IN THE U.S.A.

America's largest manufacturer of Portable
WATER JUMPS & LIVERPOOLS

www.dandyproducts.net | dandypro@aol.com

888.883.8386

the area where the twist occurs is not fully accessible in surgery to remove all affected tissue.

Is it possible to know whether the case is in the small or large intestine prior to surgery?

Grenager: Often, but not always. Typically, the physical exam, abdominal palpation per rectum (aka “rectal exam”), passage of nasogastric tube/evaluation of nasogastric reflux, and ultrasound findings together give the vet a strong suggestion of whether small or large intestine is involved. However, sometimes it’s not as clear cut, and a definitive diagnosis only occurs at surgery (if needed).

What is the typical recovery time?

Grenager: About three months, then they can go back to work. The first month is stall rest with handwalking; the second month is stall rest with a slightly bigger paddock area and handwalking, then the third month is more turnout time, and then they can go back to work.

What’s on the horizon in colic research?

Hassel: There’s actually a study that just came out about physical therapy for colic specifically, which looked pretty promising. That isn’t something we routinely integrate here, however it did look promising in terms of the initial work that was done with the core rehabilitation, like exercises with your horses. It seemed like a lot of work, because most of them do OK post-operatively.

I do research looking at the gastrointestinal microbiome, which probably plays an important role in the development of colic and things like colitis and other intestinal problems and probably other diseases in the body, just like in people. The bacteria and yeast and all the bugs that live in your GI tract probably play an important role in the health of the gut, so that can influence gas production, for example. A lot of gas could result in gas colics, but also colon displacements because the colon can move out of place when it gets filled up with gas because it rises up in the abdomen. There’s a lot of research now supporting changes in the gut microbiome associated with a variety of diseases, including colic. 🍌



KING

**SETTING THE STANDARD
FOR 40 YEARS**

**Complete design services and fine craftsmanship
Custom barns, arenas, garages, and living quarters**

1-888-354-4740 | www.kingbarns.com