

# Equine Colic

*Colic is a catch-all phrase in horses that means they have mild or severe discomfort in their abdomens*

## Overview

Colic is defined as the presence of abdominal pain. It is a non-specific, catch-all phrase as there are multiple causes of colic. Colic episodes can occur suddenly or can be mild and relatively self-limiting, waxing and waning over the course of several hours or even days. Signs of colic in horses are variable and often depend on the severity, location, and cause of the pain. Some typical signs of colic are:

- Lying down more than normal or getting up and lying down repeatedly;
- Standing stretched out or urinating frequently;
- Sweating, anxiety, trembling;
- Flank watching;
- Inappetance and depression;
- Pawing the ground;
- Decreased fecal output or diarrhea;
- Kicking or biting the abdomen;
- Curling the upper lip repeatedly;
- Sweating; and
- Rolling or thrashing.

## Causes of Colic

While dysfunction of the heart, musculoskeletal system, or urogenital tract can also cause a horse to colic, the majority of colic episodes stem from the gastrointestinal tract. A horse's gastrointestinal system is complex in structure and function, and virtually any aspect of the gastrointestinal tract can be affected. Some of the more common causes of colic (broken down by anatomic location) are stomach ulcers, distension, tumors, and impactions. Here are locations and typical colic causes:

**Small intestine** Impactions, enteritis (inflammation of the intestinal tract), displacements, torsions (twists), ileus (lack of gut motility), infarctions (obstruction of blood supply to the intestine), obstructions, and intussusception (one section of the intestine telescopes inside another part and becomes entrapped).

**Cecum** Perforations, torsions, intussus-



A horse that is colicky might look at or bite at his flanks or side.

ceptions, infarctions, and impactions.

**Large intestine** Gas distension, impactions, enteroliths (formation of "stones"), torsions, displacements, obstructions, and ulcers.

In some cases, the inciting cause for a particular colic episode is never determined. Some of the more common factors believed to contribute to colic include (in no particular order) inadequate water intake; consumption of poor-quality feeds or abrupt changes in diet (e.g., over-consumption of high energy feeds); pica (consuming non-food items); ingesting sand; exposure to (and consumption of) toxins, poisons, or molds; and stress secondary to changes in housing or daily routine/exercise or transportation. Studies also have demonstrated that horses with a history of colic or colic surgery are at risk for future episodes.

## Call Your Veterinarian

If your horse is colicking, call your veterinarian immediately. If possible, check your horse's vital signs (see TheHorse.com/11283). This information will assist your veterinarian in establishing the severity of the colic episode and whether or not your horse is likely to require referral to a veterinary hospital for advanced care. While waiting for your veterinarian to arrive, remove any sources of food and water. If possible, move your horse to an area that is safe in case he rolls, but do not put yourself in danger to do so. Do not administer any medications before your horse has been examined by the veterinarian.

## Diagnosis

Once your veterinarian arrives, she/he will perform a physical exam and ask questions regarding the history of this and previous colic episodes. In addition to measuring heart and respiratory rates and assessing hydration and blood flow (perfusion), the veterinarian will auscultate (listen to) the horse's abdomen to determine if the gut sounds are increased, decreased, or absent. A tube might be passed through the horse's nose to the stomach to determine if there is excess fluid in the stomach. This fluid is referred to as "reflux." The stomach has only a small volume and horses are unable to vomit. Thus it is important to ensure that fluid from the small intestines is not "backing up" into the stomach, causing distension, pain, or rupture. If a large volume of reflux is present, the veterinarian might elect to fasten the nasogastric tube to the halter to allow for repeated refluxing (rather than repeatedly passing the tube).

One of the most important aspects of assessing a colicky horse is the rectal examination. While a veterinarian's arm is small and a horse's abdomen is large, a great deal of information can still be gleaned from a rectal exam. For example,

a veterinarian can palpate (feel) some impactions, displacements, or gaseous distensions. Ultrasonography can also be a useful diagnostic tool in colicking horses.

### Treatment

The majority of colic cases can be successfully managed by the primary veterinarian on the farm. Analgesics (pain medications) and sedatives are the cornerstone of colic treatment. Intravenous fluids or oral fluids and/or a laxative (e.g., mineral oil) are often included in the routine management of colic.

When does a colicking horse need to be referred to a hospital? This is a difficult decision with no single answer. It depends on the severity of the colic, if the horse is insured, whether a trailer is available, and the location of the closest referral center, among other considerations. In general, horses that don't respond to one or two doses of analgesics or sedatives or have other signs indicative of severe disease are typically referred to a hospital for advanced diagnostics and treatment.

**Surgical management** The goals of surgery are to relieve pain, correct fluid and

electrolyte imbalances, identify and repair the cause of colic (e.g., removing a section of dead intestine, replacing displaced organs), and stimulate and maintain intestinal transit. Despite a successful surgery, post-operative complications—such as incisional infections and swelling, laminitis, abdominal adhesion (scar tissue) formation, and ileus (lack of gut motility)—remain important causes of morbidity and mortality.

**Medical management** Horses treated non-surgically are held off food and water, are routinely administered analgesics, and are given fluids to restore and maintain appropriate hydration and electrolyte levels. Additional medications (depending on the underlying cause) can include antispasmodics, laxatives, and pro-motility agents.

### Prognosis

While colic is the second-most-common cause of death in horses, most cases of colic have successful outcomes. According to one study, only 16.3% of colicking horses required surgery, and the overall mortality rate for colic was 11%.

## FAST FACTS

- Colic is defined simply as the presence of abdominal pain.
- Gastrointestinal system dysfunction is the most common cause of colic in horses, but pain originating from the heart (aortic rupture, etc.) or urogenital systems can also cause a horse to be colicky.
- Common causes of colic include impactions, enteritis, displacements, torsion, ileus, infarctions, obstructions, or intussusception of virtually any component of the gastrointestinal tract.
- Not all cases of colic can be prevented, but appropriate and consistent management will decrease the chances of colic.

In other words, almost 90% of horses recovered.

### Prevention

Ways to minimize colic incidents include maintaining a regular exercise program, ensuring free access to water, keeping a consistent feeding schedule, and controlling internal parasites. Institute any changes in diet or routine slowly, and avoid changing more than one factor at a time. 🐾



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