

## Colic

**Colic is abdominal pain** normally caused by a gastrointestinal disorder; however, horses may also exhibit signs of colic with non-intestinal disorders (e.g. shipping fever, ruptured bladder, ruptured uterine artery in mares). It can be very difficult in the early stages to distinguish the mild from the potentially fatal. Therefore, colic should always be considered to be a potential medical (and/or surgical) emergency.

The **clinical signs** of colic can range from very mild to extremely violent in severe cases. Some of the most common signs of colic include:

- repeatedly curling the upper lip
- pawing the ground
- lying down then getting up
- rolling
- looking at abdomen (flank watching)
- not eating and drinking
- +/- tail elevation
- violent, kicking at the abdomen
- throwing themselves onto the ground
- abrasions around the head



### What Should You Do?

The severity of the signs exhibited by your horse should dictate what you need to do. If your horse is showing violent behaviour you should call your veterinarian immediately. If your horse's signs of pain are less extreme, you can take a few minutes to examine your horse before calling your veterinarian.

If you have access to a stethoscope and a thermometer and use these together with a few careful observations, you can obtain a lot of useful information about the status of your horse.

- Is your horse's temperature normal? (normal = 37.5°C – 38.5°C)
- What is the degree of pain and the type of pain (intermittent vs. continuous)
- Does your horse's abdomen appear distended?
- What are the rate and character of your horse's pulse? (normal = 24 – 40 beats per minute)
- What is the colour of your horse's gums? (they should be pale pink)
- Using your stethoscope can you hear any gut sounds over the flanks?
- Has your horse passed any manure recently and what was its consistency like?
- Has your horse had access to any unusual feedstuffs or management changes in the last few days?



The facial artery can be used to measure a horse's pulse rate

Veterinary intervention is needed immediately if the heart or pulse rate is greater than 52 beats per minute, the horse is violently painful, the horse continues to show low grade colic for more than a few hours, the horse is depressed and off feed, the horse's abdomen is distended, gastrointestinal sounds are decreased or absent, the horse has an elevated temperature, the horse has severe diarrhoea, or the horse's signs appear to be getting worse.



Locations for placing your stethoscope to listen to your horse's gut sounds

When dealing with a horse with colic it is important to withhold feed until the veterinarian arrives or until the signs of colic have resolved. Walking the horse until help arrives is a good way to distract the horse. However, this may not be possible in all situations; personal safety should be your first priority. If it is possible, try moving your horse to an area where it is least likely to be injured while rolling.

### What Will Your Veterinarian Do?

In addition to reassessing your horse's heart rate, temperature, gums, and gut sounds your veterinarian will also evaluate your horse with further ancillary tests including:

- Examination per rectum
- Passing a nasogastric tube down into the stomach to test for potential distension of the stomach (remember, horses cannot vomit!)
- Collect a sample of peritoneal fluid (this is the fluid that bathes the abdominal structures)
- Assess for the presence of pings that might indicate gas distension of large intestine
- Collect a blood sample



Passing a nasogastric tube to test for stomach distension

Other useful procedures include abdominal ultrasound and X-rays (in ponies and foals).

### Causes of Colic

**Spasmodic colic:** This is a mild to moderate colic resulting from increased intestinal contractions that may lead to abnormal spasms that cause pain. It usually responds well to pain relief.

**Gas colic:** Sometimes gas builds up in the large intestine of horses leading to stretching of the intestine that causes pain. Often this type of colic is moderate to severe. Appropriate pain relief and management usually resolves the problem, however, it is important to ensure there is no other underlying reason (such as a twist or displacement of the gut) causing the problem.

**Impaction colic:** This occurs when the intestines become blocked with a firm mass of feed material. Impactions occur most commonly in the large intestine often in regions

where there is a change in diameter of the large intestine. It may be associated with poor dentition, fibrous diets, parasites, dehydration or restricted access to water, and decreased exercise. Simple impactions usually resolved with appropriate pain relief and management. However, it may be the first sign of a more serious problem.

**Meconium impaction:** This is seen in newly born foals. Meconium is dark green-brown in colour and is made up of digested amniotic fluid, glandular secretions and cellular debris. It varies in consistency from tarry to rock hard. Sometimes hard meconium pellets may become lodged in the colon or rectum. This problem is usually resolved with appropriate treatment that includes pain relief and administration of enemas, however, occasionally surgery may be required to relieve the obstruction.

**Displacement/Strangulation/Torsion:** A displacement is when a part of the bowel has moved to an abnormal position in the abdomen. A strangulation or torsion is when a piece of intestine is twisted. The majority of the time, these types of colic cause a total blockage of the intestine and require immediate surgery if the horse is to survive.

**Colitis/enteritis:** Some cases of abdominal pain are due to inflammation of the large (colitis) or small (enteritis) intestines. These are serious medical conditions and require immediate veterinary attention.

**Gastric ulceration:** Ulcers are common in horses, but often don't cause clinical signs. They are associated with diet, exercise and stress or other diseases and can occur secondary to the use of anti-inflammatory medications such as "bute". A change in management and diet or treatment with anti-ulcer medications usually resolves the problem, but recurrence is common.



**Gastric dilation/impaction:** This most commonly results from a dietary indiscretion such as engorging with grain or dried beet pulp. If you suspect your horse has engorged on such feeds, seek veterinary intervention immediately.

## Prevention of Colic

Colic is quite common amongst horses but fortunately most colics resolve with appropriate medical treatment. We should be aware that our management of horses may contribute to the relatively high incidence, especially our feeding practices. There are a number of management changes you can make to reduce the risk of colic including:

- As much paddock turnout as possible
- Maintaining a regular feeding schedule
- Ensure there is constant access to clean water
- Provide at least 60% of digestible energy from forage
- Do not feed excessive digestible energy (i.e. grain)
- Do not feed mouldy hay or grain



- Feed hay and water before grain
- Provide access to forage for as much of the day as possible
- Do not over graze pastures
- Maintain a consistent exercise regimen
- Make all changes in diet, exercise level and management slowly
- Regularly treat for worms and have the efficiency of your worming programme tested periodically