Colic in horses is defined as abdominal pain, but is a clinical sign or a symptom rather than a diagnosis. The term colic can encompass all forms of gastrointestinal conditions which cause pain as well as other causes of abdominal pain not involving the gastrointestinal tract. There are a variety of different causes of colic, some of which require surgical intervention and can prove fatal. Colic surgery is usually an expensive procedure as it is major abdominal surgery. Among domesticated horses, colic is a major cause of premature death. It is important that any person who owns or works with horses is able to recognize the symptoms of colic and is able to determine whether or not a veterinarian must be called.

Types of Colic

This list of types of colic is not exhaustive but details some of the types which may be encountered.

Pelvic flexure impaction

This is caused by an impaction of food material at a part of the large bowel known as the pelvic flexure of the left colon where the intestine takes a 180 degree turn and narrows. Impaction generally responds well to medical treatment, but more severe cases may not recover without surgery. If left untreated, severe impaction colic can be fatal. The most common cause is when the horse is on box rest and/or consumes large volumes of straw, or the horse has dental disease and is unable to masticate properly. This condition could be diagnosed on rectal examination by a veterinarian.

Spasmodic colic

Spasmodic colic is the result of increased peristaltic contractions in the horse's gastrointestinal tract. It can be the result of a mild gas buildup within the horse's digestive tract. The signs of colic are generally mild and respond well to spasmolytic and analgesic medication.

Ileal impaction

The ileum is the last part of the small intestine that ends in the cecum. Ileal impaction can be caused by obstruction of ingesta. other causes can be obstruction by ascarids (Parascaris equorum) or tapeworm (Anaplocephala Perfoliata) as mentioned below.

Sand impaction

This is most likely to occur in horses that graze sandy or heavily grazed pastures. The ingested sand accumulates in the pelvic flexure and right dorsal colon of the large intestines. As the sand irritates the lining of the bowel it can cause diarrhoea.
The weight and abrasion of the sand causes the bowel wall to become inflammed and can cause peritonitis. Medical treatment of the problem is with laxatives such as liquid paraffin and psyllium husk. Some cases may need surgery. Horses with sand impaction are predisposed to Salmonella infection.

Enterolith

Enteroliths in horses often form around a piece of ingested foreign material. When they move from their original site they can obstruct the intestine. Enteroliths are not a common cause of colic but it usually requires surgery.

Colic caused by parasites: Large Roundworms

Occasionally there can be an obstruction by large numbers of roundworms. This is most commonly seen in young horses as a result of a very heavy infestation of Parascarus equorum that can subsequently cause a blockage and rupture of the small intestine. Deworming heavily infected horses may cause dead worms to puncture the intestinal wall and cause a fatal peritonitis. A blockage of the small intestines by worms may well require colic surgery. A more conservative approach can be to give a horse a laxative (eg liquid paraffin) prior to deworming if a heavy worm infestation is suspected. It is often the result of a poor deworming program. Horses develop immunity to parascaris between 6 months age and one year and so this condition is rare in adult horses.

Colic caused by parasites: Tapeworms

Tapeworms at the junction of the cecum have been implicated in causing colic.

Colic caused by parasites: Cyathostomes

Acute diarrhoea can be caused by cyathostomes or "small Stronglus type" worms that are encysted as larvae in the bowel wall, particularly if large numbers emerge simultaneously. The disease most frequently occurs in winter time. Pathological changes of the bowel reveal a typical "pepper and salt" colour of the large intestines. Animals suffering from cyathostominosis usually have a poor deworming history.

Left dorsal displacement

Left dorsal displacement is a form of colic where the left dorsal colon becomes trapped on the outside of the spleen and against the nephroplenic ligament. It may necessitate surgery although often it can be treated with exercise and/or epinephrine. This condition can be diagnosed on rectal examination by a veterinarian.

Right dorsal displacement
Right dorsal displacement is another displacement of part of the large bowel. Although signs of colic may not be very severe, surgery is usually the only available treatment.

**Torsion**

Various parts of the horse's gastrointestinal tract may twist upon themselves. It is most likely to be either small intestine or part of the colon. Occlusion of the blood supply means that it is a painful condition causing rapid deterioration and requiring emergency surgery.

**Intussusception**

*Intussusception* is a form of colic in which a piece of intestine "telescopes" within a portion of itself. It most commonly happens in the small intestine of young horses and requires urgent surgery.

**Epiploic foramen entrapment**

On rare occasions, a piece of small intestine can become trapped through the *epiploic foramen*. The blood supply to this piece of intestine is immediately occluded. The intestine becomes trapped and surgery is the only available treatment.

**Other causes that may show clinical symptoms of colic**

Strictly spoken colic refers only to signs originating from the gastrointestinal tract of the horse. Signs of colic may be caused by problems other than the GI-tract e.g. problems in the *kidneys*, *ovaries*, spleen, *testicular* torsion, *pleuritis*, pleuropneumonia etc.

**Recognizing the symptoms of Colic**

A horse may exhibit any of the following symptoms. It is important to recognize the difference between a symptom of colic, and natural horse behavior. For example, horses enjoy rolling around - it is a natural behavior for them. It is imperative that you can tell the difference between when a horse is rolling because they are in pain, or when they are rolling to simply scratch their back.

**A list of symptoms generally associated with colic**

1. The horse is reluctant (anorexia) or refuses to eat;
2. The horse may look at their sides, or turn and nip at their sides;
3. The horse may kick at their abdomen with their back legs, paw with their forelegs, or stomp their feet;
4. The horse appears to be stretching out abnormally when defecating or is straining to pass a bowel movement;
5. The horse lies down and begins rolling and thrashing violently;
6. The horse is excessively sweaty after light exercise;
7. The horse does excessive lip curling (Flehmen response);
8. The horse has cool extremities (e.g., lips might feel cool to the touch on inside of the mouth);
9. Lack of bowel movements, as evidenced by the small number of manure piles (however, bowel movement is evident in some more severe cases);
10. Along with these other symptoms the horse's pulse (greater than 52 beats per minute) and respiratory rate may increase

(NOTE: the horse's temperature usually shouldn't increase with colic. If a horse is experiencing abdominal pain and also has a fever, seek a veterinarian's help immediately, as this is often an indication of an infection and may also be an indication of peritonitis).

Simple management steps that can help prevent colic

1. Be sure that all feed is stored behind closed doors. If for some reason a horse manages to escape from their stall and gets into a feed bin or storage container, they can overload on carbohydrates resulting in colic.
2. **Do NOT** allow horses access to any spoiled or moldy feed, stagnant water, or otherwise contaminated sustainance.
3. **Do NOT** feed horses on the ground. This can result in the horse unintentionally eating dirt or sand resulting in sand colic.
4. **DO** feed horses at the same time every day. Horses have very sensitive digestive systems, and if their feeding routine is disrupted, even if only by an hour or two, it's enough for some horses to colic.
5. **DO** deworm horses regularly. A good parasite control program can help prevent colic caused by parasites.
6. Feed the minimum amount of grain and other high carbohydrate-rich foods as necessary to maintain healthy weight and energy. Feeding excess grain can cause colic.
7. Feed only the SAME TYPE of feed to a horse regularly. Change in feed can easily cause colic. If moving a horse to a different type of feed is necessary, do so in small stages, weaning them slowly onto the new feed.

What to do if a horse colics

Rolling

In the event that a horse colics, and is rolling violently, be very cautious for your own safety. A violently colicky horse will have no regard for anyone. If the horse is rolling it
is often best to walk the horse as this is a good distraction from the pain and because walking often serves to help resolve gassy, spasmodic or impacted colic. If you cannot stop the horse rolling then put the horse in a place where it is least likely to injure itself.

With regards to walking, it is possible to exhaust a horse from too much walking. If the horse is out of condition or overweight be conservative with walking. Don't walk the animal continuously, allow the horse to rest if it will be quiet. Use walking to prevent the horse from rolling; if the horse is not trying to roll, allow it to stand. Symptoms of colic can be worsened by walking in some cases; follow the recommendation of your veterinarian.

**When to call the vet**

If the horse refuses to get up, is colicking violently, is sweating profusely, shows no signs of improvement within twenty to thirty minutes, or you have reason to believe the colic is serious, call the veterinarian immediately. However, in the early stages of colic a possibly fatal case is not easily distinguished from a mild one.

Sometimes a mare may colic after delivering a foal. This may be normal if only mild and for no longer than 20 minutes but call a veterinarian if the colic is prolonged or appears to be severe.