

Tacoma Equine Hospital

3112 – 156th Street E. Tacoma, WA 98446 ♦ 253.535.6999

COLIC

The term "colic" strikes fear in the heart of most horse owners, as well it should. Colic is a term that means abdominal pain of any origin. Occasionally colic signs will be seen with uterine pain in the mare or testicular twist in the stallions, but for the most part most colic pain in the horse originates in the intestines. There are few diseases in the horse that can strike so unexpectedly and cause death so quickly.

The Maze

Imagine, if you will, 33 meters or 108.24 feet of intestine wrapped on itself multiple times and stuffed in the abdomen of the horse. You can see how there isn't much room for problems to occur and if a problem did arise how serious it could be.

The horse's intestinal tract begins with the esophagus and the stomach. These organs are very similar to ours. The small intestine comes next and consists of the duodenum, jejunum, and ileum, and can be as long as 25 meters. These organs perform the same functions as ours: the digestion and absorption of sugars, proteins, fats, vitamins, electrolytes, and minerals. The large intestine is a very unique organ; its function is storage and absorption of fluid and retention of fiber for microbial digestion. It is not the intestine that digests the fiber, but the bacteria that live there; the intestine simply absorbs the end product. In order for this bacterial system to work, it needs a big intestinal space and lots of time for digestion. The large intestine is up to eight meters long and is divided into six sections, a cecum, right dorsal and ventral colon, left dorsal and ventral colon, and a small colon. It takes approximately 24 hours for a mouthful of food to make it through the maze of a horse's intestines.

Signs of Pain

Colic episodes in the horse can vary from a temporary gut ache to a life threatening illness depending on the cause. The most common signs of pain that may be seen in your horse include not eating, pawing at the ground, lying down for extended periods of time or lying down and getting up repeatedly, turning to look at their flanks, tail swishing, frequent straining to urinate, and sweating. Sometimes an old, stoic horse will simply stand in one spot and not eat. The less pain tolerant horses, or the ones with severe colic may throw themselves on the ground and roll violently so as to hurt themselves. They can be dangerous to you as they throw themselves around.

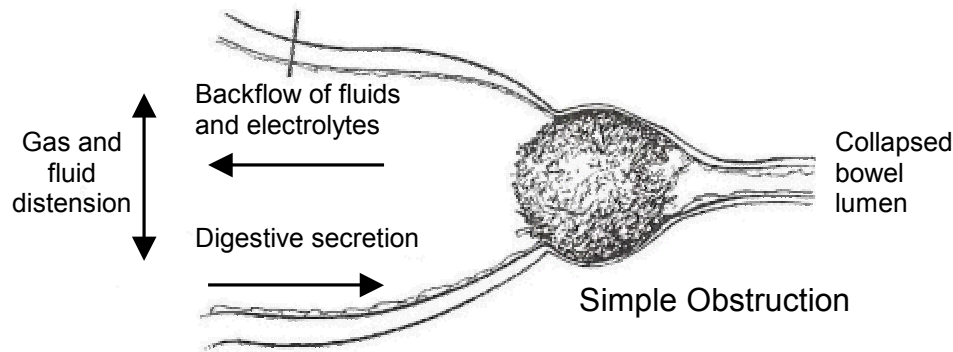
To make it easier to understand the different kinds of colic, we can divide the causes into groups based on the severity of the problem. We will discuss the two most common groups.

1) A simple obstruction is when something blocks the normal flow of food, most commonly seen as an *impaction*. The food in the intestine gets really dry and sticks. This happens in the winter when horses don't drink enough water or in the summer when they are working hard and sweat out a lot of water. Other less common causes are enteroliths, fecaliths, and spasms. These horses are mildly painful, will paw and roll, aren't eating as much as usual, are depressed and the amount of manure in their stall is decreased. This is not a life threatening disease because the horse's intestines are still healthy and trying to function, but are just getting tired. The pain

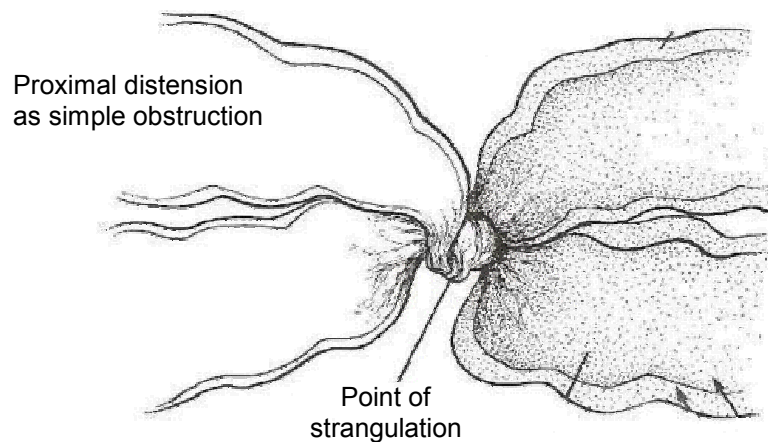
Tacoma Equine Hospital

3112 – 156th Street E. Tacoma, WA 98446 ◊ 253.535.6999

originates as water and food builds up before the blockage and the intestine gets stretched as nothing can get through. Treatment here consists of mineral oil and water to loosen the mass and encourage it to move through. Painkillers are used to help the horse feel better while this is happening. Enteroliths and fecaliths usually need to be taken out surgically.



2) Remember I said that there is eight meters of intestine folded back on itself many times? These loops are free floating in the abdomen for the most part and are moving and gurgling all the time. It is easy to see how they could get tangled up and stuck over each other. A “twisted gut” not only encompasses the obstruction to the flow of food described above, but when the intestines turn on each other they can also shut off their blood supply. Not only do you get pain from the swelling and backing up of fluid in the intestine, you get pain because the intestine is dying from lack of oxygen. This dying tissue sets off a complicated cascade of events that eventually lead to dehydration, toxemia and shock. As a matter of fact, unless the intestine actually ruptures, it is more often the shock that causes the death of the horse, not the intestinal trouble.



These are very serious and life-threatening colics, but initially it is not as important to diagnose what kind of colic it is. What is most important first is to combat the dehydration, toxemia, and shock with intravenous fluids, pain relievers, and anti-inflammatory drugs. If surgery is needed

Tacoma Equine Hospital

3112 – 156th Street E. Tacoma, WA 98446 ♦ 253.535.6999

to cure the horse, the earlier the decision is made, the more chance the horse has to survive. As we examine the horse we may sometimes have an idea of what the cause of the colic is, but it is more important to determine if surgery is needed. Often the answer will become obvious as you observe and treat the horse over a period of hours to days. The veterinarian can use a number of diagnostic tools to try and define the cause of the colic and to assess the severity.

A good physical exam and rectal exam can reveal a lot. Also, blood work, passing a tube down into the stomach, ultrasound, and gathering fluid from the abdomen will help define the problem and how severe it is. In my experience, if a horse has continued colic signs over 12 to 24 hours despite therapy, that horse will need surgery. Thankfully, most colic episodes are mild and cured with minimal treatment, most of the time without ever having diagnosed the cause.