Dear Dr. Weldy's,

Our neighbor's horse was just diagnosed with sand colic. Fortunately, she survived, but what do I need to know about sand colic?

Dear Reader,

I'm glad to hear that your neighbor's horse has recovered. Colic (abdominal pain) affects approximately 10% of the total equine population at some time in a given horse's life span. It is commonly referred to as the number one cause of equine deaths each year. Its' causes are multiple and usually concern the gastrointestinal system. Sand colic refers to abdominal pain resulting from the accumulation of sand or dirt in the large intestine. As your horse grazes, he tends to pick up sand or dirt with the grass or hay he is eating. This sand travels through the stomach and small intestine, irritating the wall of the gut as it goes, and ends up in the large intestine. Because the sand is heavier than the plant material, it drifts to the bottom of the large intestine. If small amounts find their way to this point, your horse may not show any symptoms, he may have some degree of diarrhea, or he may be mildly colicky requiring pain medication and laxatives. If large amounts of sand accumulate, more serious complications are possible. An impaction which stops movement of manure through the intestinal tract or a twist of the large intestine can occur causing severe pain and the necessity for surgery.

A simple way to help determine if your horse has too much sand in his gut is to take 6-8 fecal balls from the middle of a normal pile of manure. Make sure you do not pick up dirt from the ground. Place them in a plastic bag with water, then shake the bag to break up the manure and let it sit for 15 minutes. If more than a teaspoon of sand settles to the bottom of the bag, your horse is probably ingesting too much. However, if no sand is found, it may only mean that it is not moving out of the gut at that time. One study in 2012 found that only half of the horses admitted to a surgical hospital for sand colic actually passed sand in their manure.

Fortunately, there are some common sense steps to take to help prevent sand ingestion. First, don't feed hay on the ground. If you do, place the feeder on concrete or over rubber mats to keep dropped feed clean. The basis of the equine diet should be forage in the form of hay and/or grass. By providing a steady supply of roughage for the intestine, the fiber content can push sand out before it can settle to the bottom. For horses turned out on pasture, keeping the grass healthy (not too short) will limit a horse's exposure to the dirt. Access to plentiful, fresh, clean water helps keep intestinal contents moving. When the ingesta loses moisture and slows down, the sand can settle out more readily. Finally, psyllium husk fiber can be fed on an intermittent basis. Psyllium, when mixed with water, will swell and form a gel like substance which is believed to carry sand out of the intestinal tract.

-Dr. Wade Hammond