



Diarrhea in Adult Horses

by HEATHER SMITH THOMAS

Diarrhea in mature horses is much less common than diarrhea in foals, yet it can be very serious. If diarrhea is severe, the horse rapidly becomes dehydrated, losing fluids and electrolytes vital to body functions. Drinking more cannot solve the problem because the intestinal tract is unable to absorb the liquids passing through.

Diarrhea can be caused by many things, and sometimes the true culprit is not easily detected. Inflammation of intestines can be caused by spoiled or moldy feed, poisons that irritate the tract, massive infestation of worm parasites (especially bloodworms), physical irritation such as eating sand, etc. Diarrhea can also result from major illnesses.

Under normal condition, large quantities of fluid enter the horse's small intestine from the water he drinks, saliva, and from the pancreas, liver and intestinal lining. This fluid and its electrolytes and other nutrients are absorbed primarily by the small intestine, though large quantities move on into the large intestine for digestion and absorption. Any dysfunction of the intestines results in inadequate absorption and diarrhea.

Diarrhea can be caused by bacteria such as salmonella, or protozoa such as *Balantidium coli*, or the rickettsia causing Potomac Horse Fever. Bacteria or protozoa may be in the horse's feed or water, and then invade the digestive tract. Some invaders are more apt to multiply and cause problems if the horse is run down or the tissues are less resistant than normal, due to stress, fatigue, chilling, hard work, bad feed or other physical factors that irritate the gut lining, antibiotics that alter the micro-organisms in the gut, disease, etc.

Diarrhea may either be mild and the horse recovers without treatment, or severe and quickly fatal. If loose bowel movements are caused by intestinal irritation from poor feeds, or something irritating in the feed, the horse may get better rapidly if taken off feed for 24 hours—to give the irritated tract time to pass the offending material on through and begin to heal. The horse can then be put back on feed again, giving long-stemmed grass hay and gradually increasing the amount. Good grass hay is best at this time (rather than pasture or alfalfa—these have a laxative effect, and rich feeds may also further upset the gut).

A horse with loose bowel movements should be closely watched. If feces get too loose, he'll become dehydrated. In acute enteritis (inflammation of the intestine) the feces are soft or fluid and may have an unpleasant odor. They may contain blood, fibrous clumps or mucus, or obvious foreign material such as sand. Color may vary. If diarrhea is due to infection, the horse may show signs of septicemia, toxemia or fever. The degree of dehydration can be checked by pulling out a pinch of skin at the point of the shoulder and determining the time it takes to return to normal. If it springs right back into place, the horse is not dehydrated. If it takes a second or two to go back into place, the horse is moderately dehydrated. If it takes more than two seconds, the horse is very dehydrated. In acute cases, the horse will be suffering from circulatory collapse and shock.

There may be severe abdominal pain—the horse may roll or kick at the belly, or pass a lot of gas. In early stages, checking abdominal sounds with a stethoscope, or your ear pressed to his

belly, will reveal fluid-rushing noises and sounds of increased gut activity. Later, there may be an absence of gut sounds and only some fluid and gas tinkling noises. The abdomen may be distended in the early states, due to distention of the intestines, then gaunt after all the fluid has passed out in the feces.

In general, the diarrheas caused by problems in the small intestine are profuse, and the feces are liquid and sometimes as clear as water. Diarrheas caused by problems in the large intestine are usually characterized by small volumes of soft feces, often containing mucus. Toxemia and fever are common in bacterial enteritis such as salmonella.

A severe case of diarrhea requires immediate medical attention. If the cause is not treated and halted, there may be extensive damage done to the digestive tract that may take a long time to heal (or may be irreparable and fatal) or the horse may go into shock from dehydration and circulatory failure, and be much harder to save. The horse with severe diarrhea will need good supportive treatment to keep him from getting too dehydrated and debilitated, or to prevent or treat shock.

When intestines do not function properly, there is a loss of fluids and electrolytes, at the expense of body fluids and normal intestinal juices. The fluid which is lost consists mainly of water, sodium, chloride, potassium and bicarbonate, and varying quantities of protein. Loss of bicarbonate results in acidosis, which can be a major factor in the seriousness of acute diarrhea. The normal pH of body fluids is slightly alkaline. But when a horse suffers diarrhea and the electrolyte balance is drastically altered, chemical changes occur in the gut and body, creating a buildup of acids (acidosis). The normal pH of the body may drop dramatically, which can lead to coma and death.

If a horse is losing a lot of fluid through diarrhea, he should be given fluid therapy orally if the problem is caught soon enough. But in critical stages the fluid must be given intravenously. Fluids should include electrolytes to replace these important salts and minerals being lost from the body. If acidosis is suspected, a solu-

tion of bicarbonate can immediately be given intravenously to correct this dangerous condition, followed by enough electrolyte solution to correct the dehydration. If dehydration is not quickly reversed, the horse's kidneys may be damaged and shut down, along with other damaging effects to the body as the horse goes into shock.

If even a mild diarrhea is accompanied by fever or dullness, have a veterinarian examine the horse. There are several problems that can be quickly fatal, in which diarrhea is one of the symptoms. Diarrhea caused by protozoa or bacteria will usually elevate the horse's temperature a degree or two for a short while during the time the organisms are invading and irritating the intestinal lining. After that the temperature may drop back to normal, even though it may take several days or even weeks for the tract to fully recover from the damage. If the horse's temperature gets very high (above 102 degrees), get immediate veterinary help with diagnosis and treatment.

Some of the more serious problems resulting in diarrhea are salmonella, Potomac Horse Fever and Colitis X. With salmonella there is usually high fever and severe watery diarrhea. The horse may strain with each bowel movement and be uncomfortable. Feces smell bad and may contain mucus or blood. There may be acute abdominal pain and the horse may be colicky and off feed. In subacute cases the horse may have mild fever for several days and feces will have the consistency of cow manure.

Potomac Horse Fever usually produces moderate to high fever and severe diarrhea, often profuse and watery, shooting out several feet. Colic, laminitis and generalized edema are common, and severe cases often go into shock unless treated.

Colitis X is a type of diarrhea that is highly fatal, most horses dying within 24 hours of becoming ill, and sometimes occurs as an outbreak within a group of horses. There is sudden onset of enteritis, or intestinal distention with gas, and death occurs in three to 24 hours. Profuse diarrhea occurs, except in animals that die quickly before the diarrhea becomes evident. There is complete absence of

intestinal sounds. This disease is sometimes mistaken for salmonella, tetracycline diarrhea, arsenic poisoning, acute intestinal obstruction, or colic caused by blockage of blood vessels from blood-worm larvae.

Diarrhea in the adult horse can be mild and temporary, or serious enough to be quickly fatal. If a horse goes off feed and manure becomes soft or runny, with frequent bowel movements, consult your vet. A few loose stools the day after deworming are not unusual, and no cause for alarm if the horse seems normal in other aspects and if the looseness does

not continue more than a couple of days.

Sometimes frequent loose bowels can be caused by excitement, and this, too, is nothing to worry about. The intestinal hypermotility and diarrhea associated with nervousness is due to reduced intestinal absorption because of rapid passage of intestinal fluids in an otherwise normal intestine. Some horses become a little loose at the start of a workout, just from excitement.

But if abnormal bowel movements have no apparent cause, or persist for more than a few hours, or if the horse is also dull or obviously ill, you need to discover the reason, and the sooner the better.



IT PAYS TO BE RACE READY.

The Saint Ballado colt pictured above recently set a new sprint record of 10.00 under tack, and brought \$2,000,000 at the Barretts March sale in Pomona. Race Ready has always been a key part of his training regimen.

Setting sprint records, bringing **\$2,000,000** at sale, and looking this good doesn't happen by chance. It comes from dedication, hard work, and smart decisions.

When you feed *Race Ready* you're making a lot of smart decisions all at once. You're increasing energy levels, decreasing digestive upset and muscle fatigue, and minimizing the demeanor of hard tempered horses, to name a few.

Whether it's for endurance or sprint, *Race Ready* is formulated and balanced specifically for racehorses. It's the only feed you'll need to give them. And, it's sweetened with molasses so they're sure to like it.

Feed *Race Ready* and **REALLY** win.



ALWAYS.



Purina Mills, Inc.

1401 South Hanley Road, St. Louis, MO 63144 / For more information call us at: 800.227.8941 or visit our website at: www.purina-mills.com