

Diarrhoea in Horses

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Horses can develop a rapid onset form of acute diarrhoea, or more long term, chronic diarrhoea with loose 'cow pat' like droppings. The underlying causes of diarrhoea can be related to age, breed, diet and use. It can be caused by ingestion of certain feeds, microbial contamination of feed and/or water, viral infection and internal diseases, such as chronic liver disease, gastro-intestinal ulcers, ingestion of sand, food allergies and fungal toxins in feed, heavy worm burdens, bowel or organ cancers and drug induced diarrhoea (eg antibiotics, high doses of 'bute' in foals or aged horses). Horses which become nervous due to handling, pre-competition 'nerves' and travelling can develop 'cow pat' droppings for a few hours. Organic magnesium supplements, such as Kohnke's Own Mag-E, given for 3-4 days prior to the expected challenge may help to maintain normal nerve and muscle function in a horse with anticipation 'scours'. Diarrhoea can be basically separated into the following types relative to the underlying cause.

1. Acute or chronic diarrhoea
2. Elevation in body temperature, or no change in temperature.
3. Signs of colic or no apparent gut pain or straining.
4. Colour and odour of the droppings.
5. Young foal, growing horse or aged horse.
6. Semi-formed droppings, frequent passing or squirting, watery scours.

Handy Hint

Check the Water Supply for Contamination

If a number of horses develop a febrile diarrhoea, check the water supply, especially a dam fed by water drainage from horse or cattle yards or paddocks, or frequented by ducks or poultry. Under drought conditions, dam (and bore) water can become more concentrated with bacteria as the water evaporates, leaving an increased contaminated and concentrated source of organisms. Provide a clean, alternative source of drinking water for all horses.

Handy Hint

Do You Need to Call a Vet?

If a horse develops an acute, colicky diarrhoea with straining, an elevated body temperature, lack of appetite and developing dehydration and shock, then the diagnosis and treatment must be left to your vet. Describe the age, severity, frequency, discomfort and degree of dehydration, and take the horse's temperature when calling your vet!

Handy Hint

Treating Acute Diarrhoea

Prompt recognition and treatment by your vet with IV fluids and electrolytes, are vital in correcting dehydration associated with acute 'scouring', even before a tentative diagnosis or collection of droppings or blood is carried out to determine the likely underlying cause. Other therapy may be instigated once a diagnosis is established. Consult your vet for advice.

Acute, Painful Diarrhoea

This type of diarrhoea is usually associated with an elevated body temperature and colic-like signs with inflammation of the small or large intestine as a result of bacterial infection (most often *Salmonella spp*) and Clostridial Colitis 'X' infection. These cause febrile diarrhoea with a high body temperature in the acute stage, leading to discomfort, dehydration, debilitation and shock.

- **Salmonella spp diarrhoea** is most common in young horses, being spread by adult 'carrier' horses which exhibit no signs. Young horses under crowded conditions or stress, or horses drinking contaminated dam water or grazing surrounding grassy areas frequented by wild ducks or domestic poultry, which are often carriers of *Salmonella spp*. Prompt treatment is required to prevent severe debilitation and secondary laminitis in sick horses. Remove horses from high risk areas and consult your vet for advice
- **Clostridia perfringens Type A diarrhoea** is associated with a severe colic, debilitating colitis, often referred to as 'Colitis X'. It was initially thought to be due to a viral infection. It can cause a high temperature with rapid liver and kidney toxemia, severe dehydration, shock and death within 24-36 hours. Infection is thought to be water borne, such as septic tank run-off or creek water contaminated with sewerage. It can affect horses in training and if they recover, they often remain debilitated for long periods. Consult your vet for advice - it is an emergency - don't wait to see if the horse gets better.
- **Drug-induced secondary colitis** can be caused by high doses of sulphonamide antibiotics used to treat respiratory disease which allow pathogenic *Streptococcus spp*, *Salmonella spp* or *Clostridia spp*, as well as fungal organisms to multiply producing a mycotoxin-induced diarrhoea, which can lead to a severe toxemia. Regular doses of 'bute' to relieve discomfort from an injury or lameness can lead to severe diarrhoea and lower limb swelling without an elevated temperature in young and aged horses. Advise your vet of any concurrent treatments and seek advice on treatment and management.

Although probiotic supplements containing a blend of 'good' bacteria are often recommended to help re-establish the normal balance of flora in the hind gut, they are not always of benefit following antibiotic induced scours.

Heavy burdens of immature stage Small Strongyle worms can result in severe hindgut irritation and diarrhoea. Often the scour has a 'brown' colour and a 'dead' tissue odour, but the horse eats well and has a normal temperature.

In severe cases, the animal will appear listless, have pale membranes due to blood loss from the large bowel wall and a dull, lifeless coat. Infection with intestinal threadworms (*Strongyloides westeri*) in 1-3 week old foals can lead to rapid dehydration, debilitation and death.

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A Strongyle egg count on fresh droppings may not be diagnostic of immature worm burdens because egg laying adults may not be present. **Occasionally, a horse will develop the 'scours' within 2-4 days after worming due to the death of large numbers of resting stage Small Strongyles in the wall of the hindgut. Appropriate worming under your vet's direction is recommended for worm-related scours.**

Handy Hint

Diagnosis of Chronic Diarrhoea.

Consider feeding, water, worming, volume of water consumed, and rate of feed intake in 'greedy' horses. Check odour of droppings, worm egg counts and consistency, as well as sand content of the droppings of horses grazing sandy pastures or confined to day yards and fed on the ground - provide a feed bin and hay rack.

Chronic Diarrhoea

In many cases, it is difficult to diagnose the underlying cause of a low grade chronic diarrhoea which develops and persists over 2-3 weeks or longer, with 'cow pat' droppings and often without an elevated temperature. It is usually a result of intestinal ulceration, sand ingestion, feed allergies or feed related toxins and often has a characteristic odour. This type of diarrhoea often leads to weight loss and ill-thrift, chronic dehydration and lack of energy to exercise and the need to daily clean a scour soaked tail. Aged horses over 30 years can develop the 'scours' as their bowels deteriorate and reduced absorption of feed proteins and other nutrients occur especially if they have poor teeth.

Common causes include:

(this is not an exhaustive list of possible causes)

- Heavy Small Strongyle burdens – long term use of a resistant worming compound or heavily contaminated grazing/yard areas. Often a brown scour with a distinctive 'dead' tissue odour. Check for high Strongyle worm egg count above 500 eggs per gram in droppings. Rotate worming compound, dose twice, 3 weeks apart to control heavy burdens, then adopt a strategic worming program and rotate, rest and rigorously clean pastures to reduce recontamination.
- Sand ingestion – most common in foals and young horses. A higher incidence occurs under drought conditions when horses graze closer to the soil surface, or after heavy rain which splashes sand onto the plants which the horses then consume as they graze, or even flooding after rain. Horses grazing pasture or confined to yards with soils based on fine 'beach-like' sand are most likely to accumulate sand as they graze or eat hay off the ground. Check droppings for sand and feed psyllium husks. Young foals and growing horses can develop a 'pica' or craving to eat sand when bored or when not enough feed is provided. It is best to provide hay and avoid grazing them on pasture based on fine sandy soils.
- Excess or rapid grain intake by a horse in training – often soft, pastey 'cow pat' droppings with a sour odour containing whole grain. It is best to slow down grain intake by cutting 100mm square box heavy weldmesh to fit into feeder to prevent gorging and offer smaller more frequent feeds.
- Succulent grass intake in grazing horse results in a 'sloppy' green, slimy scour with a pungent odour often after break of season

Handy Hint

Cleaning a Scour-Soaked Tail and legs

Daily cleaning of the buttocks, tail and lower hindlimbs can be made easy by shampooing with Kohnke's Own Kleen-Sheen shampoo with in-built stain removers and foaming agents without suds that would otherwise require a lot of rinsing. Smear on neat from the bottle, massage into the fouled areas with a gloved hand and then rinse out with one pass of the hose or warm water from a bucket removes the scour debris and foam, leaving a lasting rose fragrance. If the buttocks are scalded, gently apply a thin barrier cream rather than petroleum jelly, as it is less likely to collect sand which can chafe the area.

in horses hungry for a 'green' pick. Limit access to green lush clover or lucerne based pastures to 2 hrs per day and provide hay in a hay rack until pasture matures and has a lower moisture content (more dry matter content). The scour usually clears up after 3-4 days in these cases.

- Drinking Excess Water – ("Waterholics") often in young stabled horses due to boredom. The excess water floods the bowels making the droppings less formed and 'scour-like but with a normal odour. It is best to cut off the self-waterer or empty the water tub and provide a limited daily intake of 2.5L per 100Kg body weight of clean, fresh water in a bucket twice daily. Normally the droppings will start to firm up in 2-4 days. Reduce excess salt/electrolytes in feed to discourage the horse from drinking more water than it requires to maintain hydration.
- Chronic liver damage – heavy metal toxicity in drinking water, especially dam or bore water - have the water checked for Total Dissolved Solids (TDS) and heavy metals. Fungal contamination by mouldy hay or feed can lead to mycotoxin damage to the bowel wall, liver and kidneys. Paterson's Curse poisoning in horses grazing pastures with the rosette stage of the weed can lead to chronic diarrhoea, jaundice of the mouth and 'whites of the eye' membranes due to liver damage – blood analysis and appropriate therapy should be carried out to determine the extent of the liver or organ damage.
- Chronic Inflammatory Bowel Syndrome – often leads to food malabsorption and soft, digestive juice/enzyme odour to the scour. Consult your vet for blood analysis and in these cases, short term oral steroid therapy may help.
- Upper Gastrointestinal Ulceration – severe stomach (gastric) irritation or ulcers of the small bowel can lead to low grade diarrhoea. Ulceration of small bowel often causes colic pain with a sickly odour to the diarrhoea – treat appropriately. Supplements of mucilage compounds, such as Kohnke's Own Gastro-Coat, may help to maintain normal digestive function.
- Chronic Salmonella *sp* infection – most commonly in a 'carrier' horse with occasional stress related 'flare-ups', pungent, rotting odour scour with colic and discomfort. Antibiotics are often ineffective, as are probiotics given to try to re-establish gut flora. Administering plain yoghurt (containing lactobacillae *sp*) 50mL daily for 2-3 weeks may compete with chronic hindgut Salmonella infection and reduce numbers so natural resistance can be restored. A mucilage supplement, such as Kohnke's Own Gastro-Coat may also help digestive function during recovery.

Handy Hint

Anal 'Dribble'

Many horses pass softer 'green' droppings, followed by a dribble of fluid from the anus which runs down the inside of the buttocks. In many cases, this is caused by feeding large amounts of lucerne hay. Lucerne hay has a fibrous structure which doesn't hold as much fluid as compared to cereal hay fibre. The excess water floods the rectum and 'dribbles' out after defecation. Reducing the amount of lucerne hay to less half the current amount and replace with more cereal or grassy hay may help reduce the problem in 80% of cases

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