

# *Sand Ingestion*

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Horses on sparse pastures under drought conditions have a higher risk of ingesting sand and soil as they graze. Some horses inadvertently pick up sand as they eat hay or feed off the ground, and foals may purposely eat sand between meals when confined to yards, particularly when not fed at a regular time. This habit also often reflects the eating habit of a single horse in the herd.

It has also been observed that horses in hard training may dig holes in an outside yard and seek out clay based soils. Many of these have been shown to have gastric irritation and ulcers, presumably consuming soil to help coat the stomach wall or buffer gastric acid.

## **Seasonal Occurrence**

**Diarrhoea due to sand and impaction colic can be a serious problem in horses grazing on areas with sandy soils. Often sand induced diarrhoea and symptoms of colic occur 7-10 days after the break of the season or rain after a dry period when new, poorly rooted grass covered with fine sand, is emerging.**

Often, cases of sand colic last for about 6 weeks after rains. Fine beach-like sand is more likely to be ingested on plants and mix with intestinal residues to settle and compact more readily than coarse river sand. Under sparse grazing conditions, sand ingested when grazing can irritate the large intestinal lining, leading to low grade colitis and diarrhoea, which often contains gritty sand.

Studies have indicated that horses harbouring large number of immature (hypobiotic) resting stages of Small Strongyles or Small Redworms (Cyathostomes) in the hindgut wall have a higher incidence of sand colic as intestinal movement (motility) is reduced, increasing the risk of sand accumulation. Infestation of Small Redworms is increased in horses grazing short contaminated pastures, providing a higher risk of these horses developing sand impaction colic, particularly after the break of the season which also favours worm infestation.

## **Diagnosis**

Many horses that are not 'doing as well' despite supplementary feed, regular worming and teeth care, especially under the current drought conditions, are likely to have a build-up of sand in the caecum and hindgut. Symptoms include low grade diarrhoea, gut discomfort, colic, reduced appetite and a dull dry coat. The weight of the sand can also reduce blood perfusion in the gut lining, leading to severe colic. In severe cases, painful colic and occasional peritonitis and death from a ruptured hindgut can result. Confirmation of sand impaction is a job for your vet using ultrasound, rectal or X-ray examination.

## **HANDY HINT**

**1**

### **Be Aware of Sand Accumulation.**

Horses grazing short pastures, or eating hay off the ground in sandy holding yards, can ingest significant amounts of sand that may accumulate in the caecum and large intestine. 'Hoovering' type, hung or fossicking horses confined to small paddocks or yards are most likely to be affected, including horses harbouring large populations of 'resting' larval stages of small strongyles (small redworm) in the hindgut that slow bowel motility, resulting in higher risk of sand retention.

## **Monitoring Sand Ingestion**

Are you concerned that your horse may be eating sand? Check the water trough or tub to see if sand is being washed out as a horse drinks. Place a 20 litre white bucket of water in a yard and check for sand at the bottom the next day. Collect about 5 balls of fresh manure – place in a bucket, add 1 litre of water, mix with a stick to wash out the sand. Any more than 1 teaspoon of settled sand indicates excess sand ingestion as a horse feeds, especially if it is fine, beach-like sand. Consult your vet for advice.

## Removal of Sand

Although drenching with 3-4 litres of paraffin oil once a month in horses grazing sandy soils has been historically accepted to remove sand, studies indicate that paraffin oil, even in larger doses is not effective in expelling sand. Many herbal remedies, and feeds such as bran mashes or 1kg of stewed pears mixed into feed, have little scientific evidence of helping to remove sand.

Psyllium husk mucilloid has been shown to be an efficient method to remove impacted sand that accumulates in the caecum and large bowel of horses grazing short pastures on sandy soils or eating hay from the ground in sandy yards.

## General Feeding Rate

A supplement of a minimum of 70-100g psyllium husk per 100kg bodyweight or up to (1g/kg bodyweight for horses grazing sandy areas), given for 2 consecutive days once per month is recommended to remove sand accumulated in the hindgut. Any other dosing program and low doses have little or no effect on removing sand safely and efficiently.

Where a horse has a history of "sand" colic or is a "hoovering" type that grazes close to the ground, or fossicks for morsels in a yard, especially under the current drought conditions, a feeding rate of 70-100g/100kg bodyweight given daily for 3-5 days once per month may be necessary to shift larger sand deposits.

## How to Mix Psyllium Husk into Feeds

Psyllium husk forms rapidly into a sticky mucilage when mixed with water or added to a damp feed. The best way to get horses to eat it before it turns 'gluggy' is to mix the measured amount into a double volume of dry chaff based feed, or only slightly dampened with 50mL molasses-water per 4 litres of feed containing the measured amount of psyllium.

## HANDY HINT 2

A 50-70mL 'slurp' of Kohnke's Own Energy-Gold oil with garlic oil flavouring will also encourage horses to eat psyllium husks. The Energy-Gold can be mixed into the feed for a couple of days to help horses get accustomed to the taste. Oil does not activate psyllium husk so that it does not become sticky and 'gluggy' during the time a horse takes to consume the full feed.

## How much sand is being removed?

If you check the droppings 36-48 hours after the first dose of psyllium husk, the balls of manure should be covered by a thick, slimy coating of mucus – if not, you haven't given enough psyllium.

To check if sand has been eliminated, you can:

1. Pick up a small amount of the mucus covering the manure balls between your thumb and forefinger and check for a 'gritty' feel.
  2. Visibly check for sand (or gravel) passed in the droppings.
  3. Place a shovel full of manure in a bucket of water, swish it around to wash out the sand, tip off the water slowly and check for sand.
- Consult your vet for further advice.

## 3 HANDY HINT

If a horse has a likelihood of ingested sand on sparse pastures, it is important to ensure that the horse is wormed regularly to control Small Strongyles because large populations of resting stages as small cysts in the large bowel wall can reduce the motility or movement of the large bowel and increase the risk of sand accumulating in horses grazing on sandy or sparse pastures.

## Preventing Sand Ingestion

1. Prevent sand ingestion – provide feed or hay in a bin or trough
2. Avoid grazing short pastures on sandy areas if possible
3. Provide trace-minerals and vitamins, such as Kohnke's Own Cell-Vital® or Cell-Provide®, in a small feed to reduce 'cravings' for sand to correct deficiencies
4. If a horse in training eats soil when confined to a yard, supplement with Kohnke's Own Gastro-Coat™ daily to help maintain a coating on the upper stomach lining

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