



**marstall**<sup>®</sup>  
Premium horse feed

## Frequent digestive problems in horses and their causes

*If our horse has symptoms of a colic, we call a vet immediately. We know the animal's life is in danger. Less dramatic signs of gastrointestinal problems tend to be ignored or not taken seriously. marstall names frequent signs of indigestion, shows how to prevent them and explains why a healthy intestine is very important.*

In her bestseller "Gut: The Inside Story of our Body's Most Underrated Organ"

German author Giulia Enders explains in an entertaining and thrilling way that the human intestine is an excellent, although often neglected organ. The health of our gut has an important bearing on our entire body and on our mind — a correlation that also applies to horses: their well-being and performance — physically and mentally — depends to a large degree on the health of their intestines.

### **Obvious signs of a disturbed intestinal flora:**

- flatulence
- enterospasms
- foul-smelling faeces
- diarrhoea (loose stool to completely liquid faeces)
- colic

Let's start with flatulence. Frequently, it is the first perceptible sign that our horse's digestive system is overtaxed. Most of us know from their own experience that unwanted gases in the intestinal tract do cause pain — especially when wearing tight-fitting trousers. For horses, it is the saddle girth and the weight of the rider that exert additional pressure. As a result, the horse tenses up, shows poor motivation at work and cannot be ridden from back to front.

Liquid faeces and diarrhoea also indicate that a horse's gastrointestinal tract is overly acidic. We all know from personal experience what a strain these symptoms put on our entire body. We feel weak and exhausted and are not able to perform. That's exactly how our horses feel.

We should take our horse's digestive problems as seriously as our own health concerns and eliminate their causes as quickly as possible. If the gut is weakened, the immune system is weakened, too. This in turn opens the floodgates to other diseases.

Vitamin H deficiency is another example. With the aid of a healthy intestinal flora, horses are able to produce vitamin H (also known as biotin) — like many other water-soluble vitamins — themselves. A disturbance of the intestinal flora causes a reduction in vitamin H production, which often manifests itself in the form of delayed change of coat, dull coat, skin problems, brittle hair or cracked, brittle hooves.

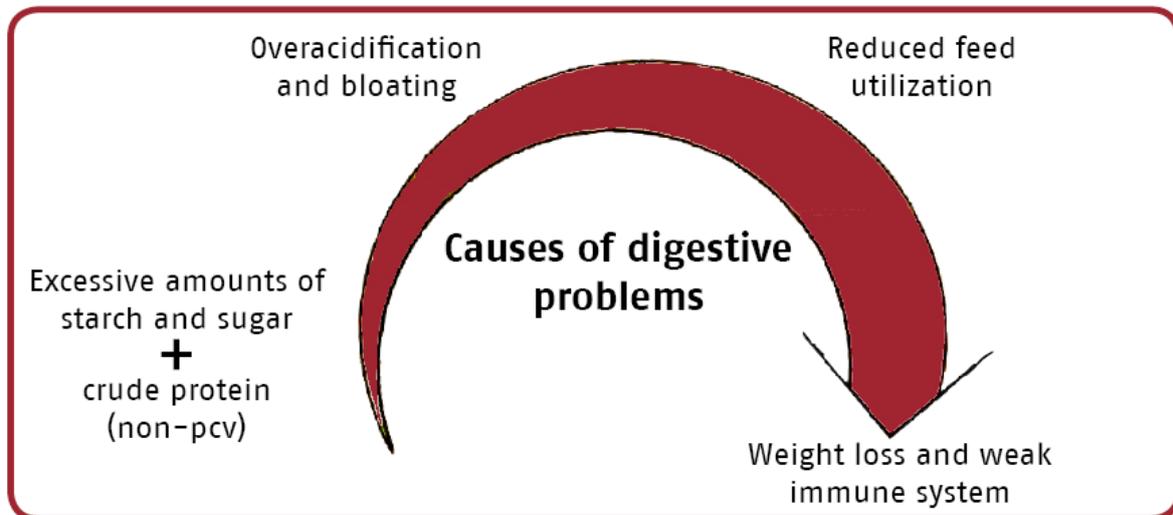
A disturbed balance of the intestinal flora is also often the cause of laminitis. Changes in the intestine's microflora cause positive microorganisms to die off in

masses. Endotoxins released in the process may enter the bloodstream via the intestinal mucosa and trigger laminitis.

### **Causes of digestive problems**

What are the possible causes of an overburdening of the intestinal flora? Apart from organic causes, hasty eating and stress triggered by social factors, transport or tournaments, digestive problems are often brought about by inappropriate feeding. Special caution should be exercised regarding sugar and starch. If our horse is healthy and expected to perform, sugar and starch can be fed in appropriate quantities. The starch, however, should be easy to digest in order to prevent faulty fermentation. It is better to feed hydrothermally treated barley and maize flakes than whole grains. Basically, the amount of starch fed to the horse should be adjusted to the performance, since the body converts the starch into sugar. Caution should also be exercised regarding protein that cannot be digested in the small intestine, as — unlike raw protein with precaecal digestibility (pcv) — this type of protein remains unused and moves to the large intestine, where it is metabolized by intestinal bacteria. In the process, the bacteria produce gases that may cause flatulence and acid that needs to be removed by the liver and kidneys in very strenuous process.

Excessive amounts of starch and sugar and crude protein that cannot be digested in the small intestine cause overacidification and bloating. In consequence, the horse's ability to utilize the feed — especially the basic feed — is reduced. This in turn leads to weight loss and a weak immune system.



### **(Im)balance of the intestinal flora**

In the intestine, countless bacteria and microorganisms help horses to digest their food. These tiny, useful helpers represent a very sensitive "biocoenosis" with regard to their number, their composition and the activity of the intestinal flora. When the so-called microflora is in balance, we speak of eubiosis, and everything works perfectly. Excessive amounts of non-utilizable cereal starch, sugar (e.g. fructans) or protein that cannot be digested in the small intestine shift the balance of the microflora. This condition is called dysbiosis. A healthy intestinal environment can be supported by observing the following six principles:

#### **Prevent overacidification**

1. fodder that is rich in crude fibre, as chewing buffers the aggressive stomach acid
2. easily digestible starch, quantity adjusted to performance
3. limited amounts of sugar
4. good proteins = proteins with precaecal digestibility
5. stress reduction
6. allow time between feed intake and movement

## Help for digestive problems

There are various natural substances that provide help for a stressed gastrointestinal tract or help to prevent damage. marstall offers different products for different needs.

Here is a selection:



Brewer's yeast, apple pomace and linseed form a powerful trio for horses with digestive problems like colics, flatulence, diarrhoea or liquid faeces.

**marstall Granutop** consists of these three components, which stabilise the microflora, counteract overacidification, bind mycotoxins and other toxins and improve feed intake and raw fibre degradation. They have antioxidative, bacteriostatic, anti-inflammatory and soothing

effects on the gastrointestinal tract. Over 100 people who tested the product confirm its positive effect. Granutop is primarily administered to alleviate general disorders of the gastrointestinal tract and poor feed conversion. It may also serve as a prevention measure in stressful situations like change of coat, deworming or moving to a new stable.



**marstall ProGastro** is gentle on the stomach and gut when the horse's digestive system is overtaxed. The combination of magnesium hydroxide, pectin lecithin complex and live yeast has been proven to promote a healthy stomach (Köller et al. 2010). Radical scavengers, especially vitamin C, counteract oxidative stress and regulate the acid-base balance. The combination of active ingredients helps to protect the stomach wall from acid and to protect the body from the impact of stress. ProGastro may be combined with medications like omeprazole (Kohler et al. 2010). ProGastro caters for horses with a sensitive stomach or stomach ulcers, but also for horses that are sensitive to stress.

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**marstall Darm-Regulator** counteracts chronic disorders in the large intestine associated with liquid feces and abdominal bloating. It works in three ways. Firstly, it stabilises the fluid and electrolyte levels. In addition, probiotic live yeast regulates and supports a good colon flora. Thirdly, soothing herbs and a special blend of intestinal active prebiotic fibres (marstall Previta-Fibers®) regulate the intestinal environment.

If you have questions about horse feeding in general or about stomach/intestines/digestion in particular, you may call our free-of charge counselling line: +49 - 83 86 - 93 33-15 (Mo - Fr 7am - 5pm). You may also send an email to [info@marstall.eu](mailto:info@marstall.eu).