

Health begins in the intestine

Author: Maïke RAKEBRANDT; Senior Product Management Equine & Pet, Leiber GmbH

Did you already know? Many acute infections, but also chronic diseases, are the result of immune depression triggered by stress. Whether a horse gets sick or not depends, among other things, on how stable its immune system is.



The immune system – what is it actually?

The immune system is divided into:

1. unspecific or innate defences such as skin, mucous membrane in the mouth and intestines, or gastric juice. It can render pathogens harmless on first contact.
2. specific or acquired defence such as T and B lymphocytes in the blood. It must learn through confrontation with certain pathogens.

Today we know that there is a third line of defence: the so-called intestinal immune system or GALT – gut-associated lymphatic tissue. It is assumed that 70 to 80% of all cells that produce antibodies are located in the mucous membrane of the intestine. The intestinal mucosa is therefore one of the largest – but also the most susceptible immune organs in the body.

Intestinal protection is immune protection

A healthy intestinal environment is constantly changing, because above all nutrition, medication, worming, antibiotics, but also environmental influences such as mycotoxins put a great strain on the intestine and can disturb the sensitive ratio of healthy to pathogenic intestinal bacteria in the intestinal flora. Stress, such as transport, participation in competitions, or a new group composition can also literally “lie on the horse’s intestine”. All this has an influence on the immune system, the psyche, the skin, or even the lungs. Why? Because all systems in the body are interconnected. We speak here, among other things, of the gut-brain axis, skin-brain axis, or the gut-lung axis.

In addition to the intestinal microbiome, the intestinal mucosa can also be damaged directly due to long-term malnutrition. This leads to an overall poorer nutrient absorption and thus to secondary nutrient deficiency. The skin and the mucous membrane are connected to each other via a common immune system. An imbalance in the intestine can therefore often be recognized by a poor skin and coat quality.

Feed the immune system fit

The immune system is a very active cell system with a high production rate of immune cells and antibodies. This requires micronutrients that need to be supplemented daily through feeding. These include, for example, vitamin C, vitamin B1 (thiamine), vitamin B2 (riboflavin), vitamin B3 (nicotinic acid), vitamin B5 (pantothenic acid), vitamin B6 (pyridoxine), vitamin B7 (biotin), and vitamin B9 (folic acid). Brewers’ yeast is naturally rich in vitamins of the B complex and amino acids. These include threonine, lysine, arginine, and especially glutamine, which are indispensable for the intestinal immune system, for example as the main energy substrate of the immune cells, for antibody formation, or the synthesis of the messengers.

In addition to the brewers’ yeast, the fibre carriers in the **Leiber YeaFi®** products also make an important contribution to stabilizing the microflora in the gut and thus to strengthening the immune system. Like brewers’ yeast, malt spent grains, apple pomace, and beet pulp serve as a nutrient substrate for the microorganisms. From this, they form so-called metabolites such as butyrate or propionate. These are important energy suppliers that also directly support the intestinal mucosa and thus the intestinal health.

The immune booster! Beta-glucans from the brewers’ yeast cell wall

Beta-glucans are components of the brewers’ yeast cell wall. They directly activate the non-specific and also specific immune system. The purer the beta-glucan (for example **Leiber®Beta-S** or **Biolex® MB40**), the higher the effect. The type of glucan is also decisive. Cereal glucans or algae glucans are less branched and thus less effective than brewers’ yeast glucans.



Read also: [Glucans strengthen the immune system!](#)



Who particularly benefits from the daily brewers' yeast administration?

Strengthening the immune system plays a very important role by strengthening the microbiome in the large intestine. In principle, EVERYONE benefits from a daily dose, but especially:

- | old horses: they often show a sluggish intestine and slowed metabolism.
- | young horses: a stable microbiome must first be built up.
- | metabolically ill horses: they suffer more often from dysbiosis (microbial imbalance) and faulty fermentation due to long-term medication, among other things.
- | horses with skin diseases: dysbiosis manifests itself in poor coat and skin quality.
- | horses with chronic digestive disorders: they are susceptible to secondary diseases.

Brewers' yeast and Leiber YeaFi® products support the gut microbiome and thus make an important contribution to strengthening the immune system.



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Excellence in Yeast