

EquiSUMMIT™ EQUINE LEAKY GUT SYNDROME

Gut health has become increasingly synonymous with overall health. As we continue to learn that what happens in the gut can have a body-wide impact.

At its core, the digestive system has two main functions:

- To properly digest and absorb nutrients
- To function as a barrier to pathogens, and work as part of the immune system

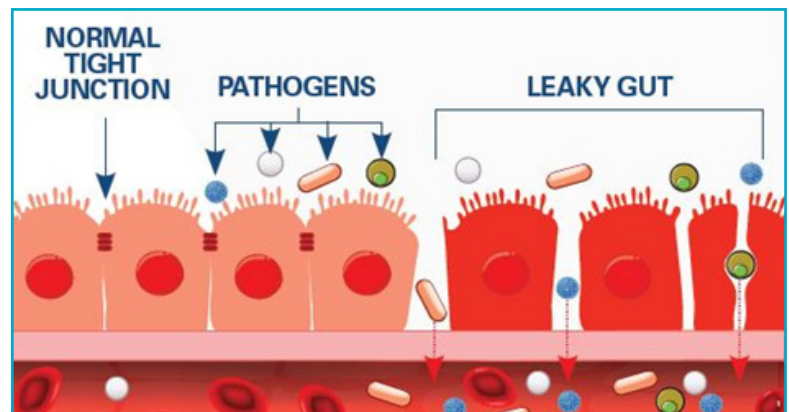
Both jobs are done by the intestinal barrier, a single layer of cells that line the gastrointestinal tract (GIT).

The gut can be resilient and can handle a significant amount of insult and injury. However, over time, if the gut is not properly cared for, small problems that might have been corrected naturally can turn into larger issues, such as Leaky Gut Syndrome (LGS) – impacting overall health and wellbeing.

What Is Leaky Gut Syndrome?

Leaky Gut Syndrome (LGS) occurs when the tight junctions between intestinal epithelial cells, or the cells themselves, are compromised or damaged—allowing harmful substances to cross the intestinal barrier and be absorbed into the bloodstream resulting in:

- Disease and infection
- Stress on the immune system
- Local and systemic inflammation
- Insulin resistance
- Metabolic dysregulation



These leaks often start slowly, but over time continue to grow. Often you don't become aware of the leaky gut issue until significant damage is done and the impact to the health and performance of your horse becomes obvious.

What Causes Leaky Gut Syndrome?

Horses are constantly being exposed to a variety of environmental, biological and situational stressors. Stressors such as extreme weather, disease challenges, diet changes, medications, poor water quality, exercise or travel can damage the epithelial cells and tight junctions. Your horse (and its gut) can likely overcome experiencing one or two of these stressors, especially if they are acute (short lived). If, however, your horse is exposed to multiple stressors such as during a competition (exercise, diet changes and travel) or the stress is chronic (long term or repeated exposure), normal healing or immune function may not be able to keep up. In these cases, small, recurring leaks can develop into full-blown Leaky Gut Syndrome.

You may be able to manage or reduce some of these stressors, but it's unlikely you'll be able to eliminate or avoid them altogether.

LGS 101 – What Is It, What Causes It, What Are Its Symptoms?



What Are the Symptoms of LGS?

Each horse can react differently to the effects of LGS, so knowing what is “normal” for your horse is key. A symptom, for instance, may be that your horse is simply not performing as expected. As mentioned, one of the main functions of the GIT is the digestion and absorption of nutrients. When damaged, the intestine’s ability to absorb those vital nutrients is reduced, which can impact overall performance.

LGS can present in several ways, including:

- Changes in behavior or personality
- Poor performance
- Weight loss
- Laminitis
- Insulin resistance or metabolic syndrome
- Girthy when saddled
- Loose manure or diarrhea
- Skin allergies
- Chronic or recurrent colic
- Not finishing feed
- Constantly switching from one hind leg to another in the stall
- Prefers hay to grain

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WHAT CAN YOU DO?

Management

There are several management and nutritional approaches you can take to reduce the incident of LGS. Stress is a primary cause of Leaky Gut Syndrome – things as simple as extreme weather, diet changes or trailering can have a negative impact on your horse. Exposure to some of these stressors is inevitable, and so we identify methods to minimize their impact, such as maintaining a consistent routine when it comes to exercise and feeding. Always ensure your horses have shelter (from wind or sun) and good air flow and be sure to provide plenty of clean water and high-quality, mold-free forages.

Nutrition

If we get a cut on the skin, we can clean it, apply an antibiotic and bandage until it heals. Things are a little more complicated for an injury to the intestinal lining. Since we often cannot treat the injury directly, we need to utilize nutritional approaches. Feeding for proper gut health gives your horse the nutrients needed to maintain the protective intestinal barrier and to be able to absorb crucial nutrients. You may consider an array of nutritional solutions, including:

- Nutrients such as butyric acid and zinc, which when delivered throughout the GI tract, help to strengthen tight junctions, and support wound healing.^{1,2,3}
- Prebiotics which are specialized fibers or complex carbohydrates that act as food or an energy source for beneficial bacteria in the GI tract.
- A proven, efficacious probiotic that can help maintain a healthy microbial population that assists with digestion and inhibits the growth of pathogens.
- Certain amino acids including glutamine, arginine, and threonine.
- The addition of chromium to the diet helps activate insulin receptors, mobilizing more blood glucose into cells.⁴ Increasing glucose uptake by immune cells may help the horse mount a more effective immune response during LGS

The Importance of Gut Health

A comprehensive focus on proper gut health can create a foundation for optimal equine health and performance.

Benefits of proper gut health include:

- Improved performance and overall wellbeing
- Absence, prevention, and avoidance of disease
- Better nutrient digestion and absorption
- Enhanced metabolic function
- Improved bone and joint health

Gut health can be improved by:

- Strengthening the intestinal barrier
- Increasing microbial diversity
- Inhibiting or eliminating pathogens
- Reducing inflammation
- Supporting immune function

References

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