



## Good Versus Bad Bugs: How Environment Affects Horses' Gut Health

Anyone who has experience with horses is aware of the very real threat of losing a horse to colic or other gastrointestinal disease. But looking back on the history of equine death causes, colic still holds the same percentage as it did 20 years ago, standing firm as the second highest cause of death behind natural causes. Why hasn't modern medicine decreased the chance of losing horses to colic? Why do we all still share the common fear of our horses colicking out of the blue, with little warning and minimal reliable strategies to prevent problems?



Dr. Peter Heidmann evaluating a patient through an abdominal ultrasound. Photo courtesy of Palm Beach Equine Clinic

The answers to these questions remain a work-in-progress, but over the past 10 years, veterinarians and researchers have learned a lot about the role of the equine microbiome on all sorts of health outcomes, including colic, maldigestion, dysbiosis, and a myriad of other health problems.

The equine gut microbiome is an ecosystem composed of quadrillions of microbes, including bacteria, fungi, and even viruses, which interact and coexist in the gastrointestinal tract and contribute to overall gut health and well-being. In equines, when the microbiome is disrupted in such a way that populations of beneficial bacteria and yeast have declined and/or populations of harmful pathogenic bacteria and yeast have increased, it is not unusual to see issues such as colic, colitis, laminitis, and other serious issues.

*"The relationship between stress and gut health isn't as simple as a cause-and-effect relationship, where stress leads to a direct change in the behavior of the bugs, or where a change in flora directly increases a horse's stress levels. It is a complex, dynamic interaction; it's a constant feedback loop."*

– Dr. Peter Heidmann, Head of Internal Medicine at Palm Beach Equine Clinic

Like each individual horse, each microbiome is unique; regional, dietary, and even breed and genetic differences can create diverse microbiomes, and varying degrees of digestive health. Even within one horse's microbiome, the "top end" of the colon can be drastically different from the "bottom end" in terms of the population and diversity of microbes. The way all the organisms perform and act within the microbiome determines the functionality of the gut as a whole. Board-certified internal medicine specialist [Dr. Peter Heidmann](#) leads the [Internal Medicine department](#) at Palm Beach Equine Clinic and takes us on a deeper dive into the equine gut microbiome.



Dr. Peter Heidmann examines an abdominal ultrasound. Photo courtesy of Palm Beach Equine Clinic

[Learn More About the Microbiome](#)

## Meet Dr. Heidmann

Dr. Heidmann grew up working with horses and other livestock in New England. He is a graduate of [Tufts University School of Veterinary Medicine](#) where he also completed a Master's in Public Health with a concentration on Epidemiology.

In 2006, Dr. Heidmann founded [Montana Equine](#), a comprehensive medical and surgical practice with locations in Billings, Bozeman, and Helena, Montana. Dr. Heidmann continues to operate Montana Equine while not in Wellington, Florida, and he sees referrals and consults on cases across the country. In addition to treating internal medicine cases, he focuses on sports medicine to diagnose and treat subtle performance-limiting conditions in top equine athletes, helping them to reach their full potential.



Dr. Heidmann has served as the Primary Consulting Medicine Specialist for the Pan American Games. Photo by Jump Media

[Learn More About Dr. Heidmann](#)

## 2021 M&R Training Days

Palm Beach Equine Clinic is a proud sponsor of the 2021 M&R Training Days, Wellington's most unique training opportunity, taking place at the Jim Brandon Equestrian Center every Tuesday and occasional Monday nights through April 2021. M&R Training Days are an excellent opportunity to prepare young horses for the show ring, to practice horse show elements not available at home, or to help build confidence for both horse and rider in a relaxing environment.



M&R Training Days feature show ring obstacles, including a PBEC jump. Photo by [Catie Staszak Media, Inc.](#)

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## Stephanie Danhagl Dominates the Amateur-Owner Division During WEF Week 3



Stephanie Danhagl and Tufton Avenue take the championship in the Amateur-Owner 18-35 division. Photos by [Jump Media](#)

The division championship in the WEF 3 Amateur-Owner Hunter 18-35, presented by Palm Beach Equine Clinic, went for a fourth consecutive week to Stephanie Danhagl of Pacific Palisades, CA, and Tufton Avenue. The pair won four of the division classes, plus a second place in the Stake, earning a landslide total of 46 points to be named champion.

[See Division Results](#)

