



Microbiome claims are amongst the industry's fastest growing trends.^{1,2}

What if you could stabilize the gut and nourish a more resilient gut microbiome using essential nutrients already required in the diet?

Performance minerals were made for this moment.

Gut Health Isn't Only About What's in the Gut.

It's How the Gut Adapts When Life Applies Pressure.

The gut microbiome plays a central role in how a dog's body responds to daily changes from environmental and lifestyle stressors. When the gut microbiome remains stable, dogs are better equipped to manage and thrive through daily stress.

New research confirms that strengthening essential mineral nutrition with Zinpro® Performance Minerals® supports a more stable, adaptable gut microbiome when everyday stress occurs.

A More Stable, More Adaptable Gut Under Everyday Stress.

In a controlled adult dog transport-stress study, Zinpro Performance Minerals (Zn, Mn, Cu, Fe) shifted gut balance and biological signaling in ways that align with a steadier, more adaptive gut response.

A steadier gut microbiome is the first sign of an adaptable gut. Dogs fed Zinpro® showed:

- A more stable gut environment under stress, reflected by lower dysbiosis (figure 1)
- Lower levels of opportunistic bacteria, including an 8% reduction of *Streptococcus* and 10% reduction in *E. coli* (figure 2)
- Greater microbial richness and a 5.6% improvement in species diversity post-transport, indicating ecosystem resilience (figure 3)

Figure 1: Dysbiosis Index (Pre vs. Post Transport): Control vs. Zinpro
Dogs fed Zinpro maintained a lower Dysbiosis Index across the stress event.

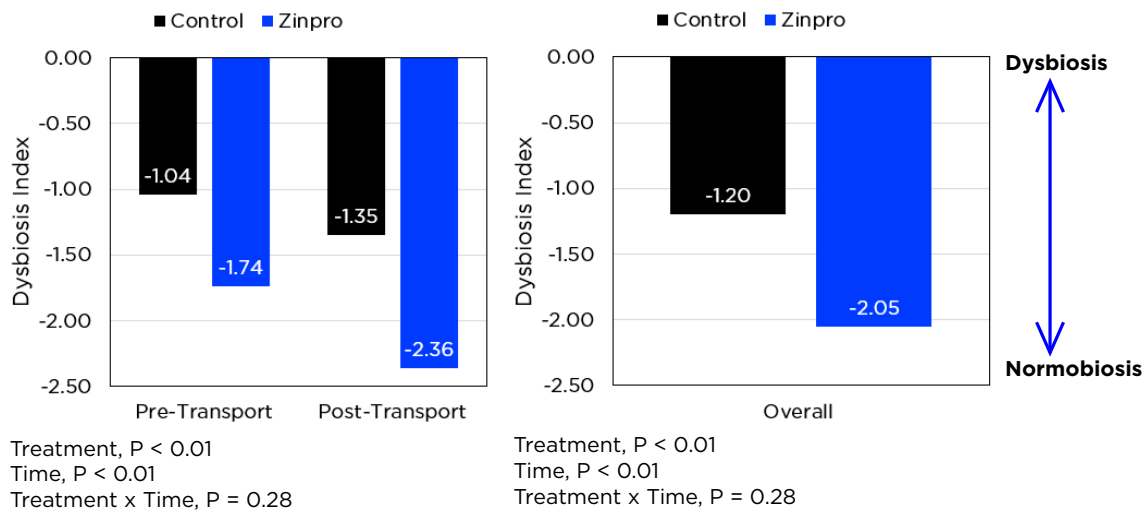


Figure 2: *Streptococcus* and *E. coli* Abundance: Control vs. Zinpro (Pre & Post)
Lower *Streptococcus* and a trend toward lower *E. coli* was observed in dogs fed Zinpro.

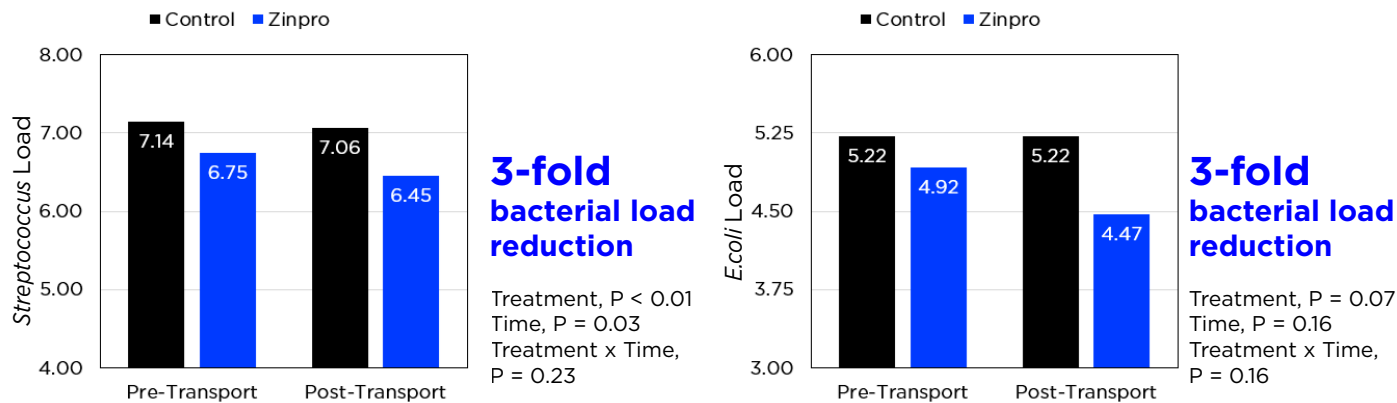
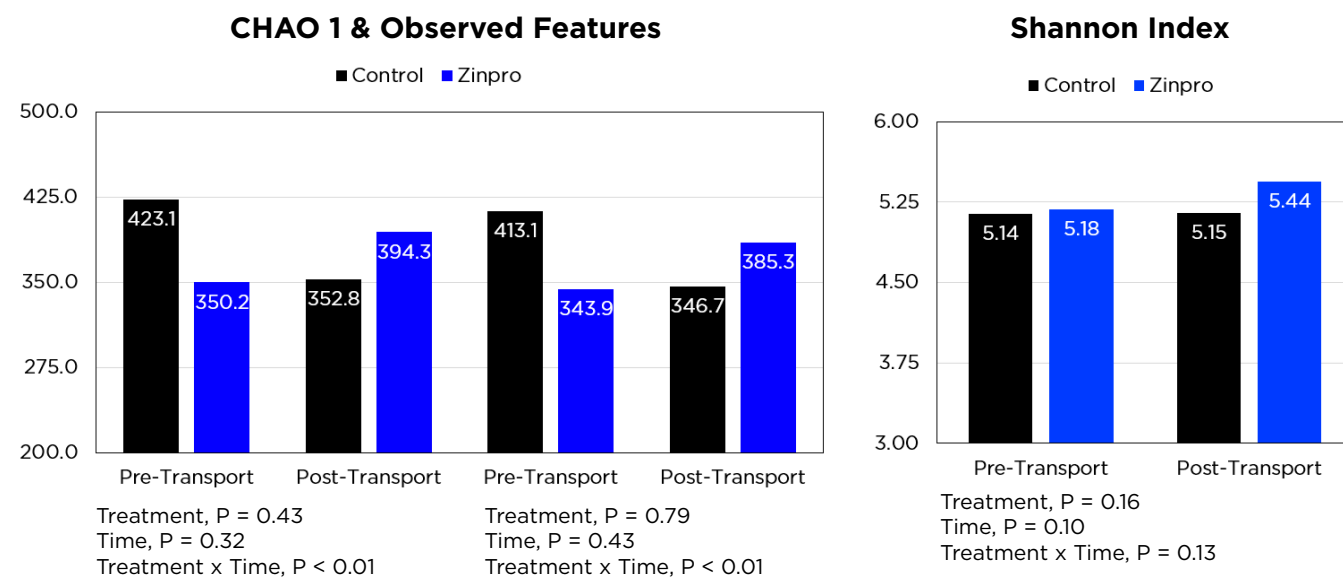


Figure 3: Microbial richness and diversity preserved



Stable gut ecosystems help the whole body respond better to stress.

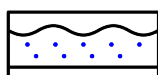
Dogs fed Zinpro Performance Minerals exhibited distinct biological signals in circulation, measured through plasma metabolomics. These signals clustered across multiple interconnected biological functions, indicating a coordinated, system-level response to stress rather than isolated reactions. (figure 4)

The observed signaling patterns aligned with key physiological themes, including:

- Inflammatory balance
- Cellular maintenance and repair
- Gut-derived signals with systemic reach

Because these signals were detected in circulation, they reflect biological responses extending beyond the gut, supporting whole-body adaptation during stress.

Figure 4: Dogs fed Zinpro exhibited more organized biological signaling during stress, reflecting a gut environment that remains stable and responsive when challenged.



The gut ecosystem remained more balanced under stress, with microbial communities showing greater stability and a steadier gut environment when challenged.



Biological signals measured in the blood were more coordinated during stress, showing that the gut was communicating more clearly and consistently with the rest of the body.



More integrated, whole body response to stress, supporting improved coordination across biological systems when challenged.

A new way to compete in gut health: Strengthen the base before adding more

Gut health has become a saturated category, where ingredient innovation is outpacing consumer trust, and differentiation is increasingly difficult, and costly.

This research points to a simpler path forward – using essential nutrients already required in the diet and already familiar to consumers, to help dogs consistently thrive through stress.

All dogs experience everyday stress, and even micro-stressors can destabilize the gut over time.

With performance minerals built into the base formula to improve how essential nutrients are utilized, brands can help the gut remain more balanced and adaptable during these everyday stressors – before adding gut health-specific ingredients.

By optimizing the trace mineral foundation, brands enable the entire formula – and the story built on it – to perform more reliably over time. This isn't a new gut ingredient story; it's a more credible, resilient way to talk about gut health.

Contact the Zinpro pet team to review the research more closely and explore research-backed claim possibilities.



Sources:

1 - AnimalBiome. (2022). State of the Gut Report: Gut Reactions — Pets Have Shockingly High Levels of E. coli. Kinship/AnimalBiome. <https://www.kinship.com/pet-health/e-coli-cat-dog-gut-health>

2 - Innova Market Insights. (2025, March 13). Global pet food trends: Gut health insights and innovation. Retrieved from <https://www.innovamarketinsights.com/trends/global-pet-food-trends/>