



Could Stress Cause Gastric Ulcers in Performance Horses?

It has long been recognized that the majority of Thoroughbreds in race training are affected by gastric ulcers; however, less is known about the prevalence of equine gastric ulcer syndrome (EGUS) in sport and pleasure horses.

Recent studies from the United States and Europe, including research performed on Swiss endurance and eventing team horses, revealed that lesions in the gastric mucosa are far more common in nonrace-horses than previously assumed: Veterinarians found evidence of ulcers in 42% of top-level three-day eventers, 63% of show jumpers and dressage horses, and 48-73% (pre-season) to 93% (during racing season) of endurance horses.

Many factors can cause or exacerbate gastric ulcers in horses, including diets consisting of high volumes of concentrate feeds, physical exertion, gestation, transportation, weaning, and other stresses. Physical and psychological stress is often mentioned as a suspected cause of EGUS, however equine stress levels are difficult to quantify.

In our ongoing research we aim to investigate stress levels and individual horses' abilities to cope with stress using two approaches: One method involves measuring levels of salivary cortisol (an important stress hormone), and the other involves monitoring heart rate variability to determine sympathetic (fight-and-flight) tone in horses.

These methods could teach us more about the ill-defined syndrome of "stress" and its potential role in ulcer development and other pathologies in sport horses.

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