



# Pectin-lecithin

## Clinical trials on gastric ulcers in horses

### By The Nude Horse (Equine Epidemiologist)

Trending in gut health for horses is Pectin Lecithin. Is there evidence that feeding lecithin to horses cures, heals or assists in gastric ulcers?

A **beneficial effect** of the use of pectin lecithin on gastric ulceration has been previously reported in clinical cases (Ferrucci and others 2003; Venner and others 1999).

Another study revealed after 35 days of feed deprived induced gastric ulceration noted a **decrease in severity** after feeding pectin lecithin.

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However a lack of randomization during the treatment allocation and blindness of the evaluators to the treatment given may account for some of the positive outcomes observed. More comprehensive clinical trials and further research however reveal quite **conflicting disparities**.

One significant study called "**Efficacy of a Pectin-Lecithin Complex for Treatment and Prevention of Gastric Ulcers in Horses**" by Macarena Sanz, DVM, MS, DACVIM\*; Adrienne Viljoen, BVSc; Montague N Saulez, BVSc, MS, PhD, DACVIM; Steve Olorunju, PhD; Frank M Andrews, DVM, MS, DACVIM. This study concluded:

"There were **no significant differences in the ulcer scores between mares that received the treatment and mares that didn't**. Based on these findings, we conclude that, under the conditions of the study reported here, administration of the feed supplement was **ineffective** at preventing squamous gastric ulceration. This is consistent with the findings reported by others (Murray and Grady 2002). There is a possibility that the model used in this study was too severe for the product; however resolution or improvement of the naturally occurring, mild, gastric ulceration present at the beginning of the study after 28 days of treatment was not observed either."

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Another study conducted by M. J Murray and T.C Grady called "**The effect of a pectin-lecithin complex on prevention of gastric mucosal lesions induced by feed deprivation in ponies**" concluded:

"This study examined whether a product containing a pectin-lecithin complex (Pronutrin) could prevent gastric squamous epithelial mucosa using a protocol of intermittent feed deprivation that resulted in prolonged increased gastric acidity (Murray and Eichorn 1996).



Eight ponies were used and served as their own controls in 2 trials in which they were 72 h cumulative deprivation (altering 24 h with no feed, then 24h free choice hay), with a 4 week interval between trials. Ponies assigned randomly to receive either 250g Pronutrin plus 200g pelleted feed, or 450 g pelleted feed only. Ponies were conditioned to each treatment for 7 days and received Pronutrin and pellets or only pellets once daily during the feed deprivation protocol. Gastroscopy was performed at the beginning and conclusion of the feed deprivation protocol.

The endoscopist (M.J.M) was blinded as to treatments, and lesions severity was scored on a scale of 0-5. Gastroscopy revealed normal-appearing gastric mucosa at the beginning of feed deprivation, with the exception of 2 ponies which had focal squamous mucosal erosion and 1 pony with focal glandular mucosal erosion. After 72 hours cumulative feed deprivation each pony except 1 in one of the trials developed erosions or ulcers in the gastric squamous mucosa.

**There was no difference (P=0.6) in the presence or severity of gastric lesions between treatments.** Lesions did not develop in the gastric glandular mucosa as a result of the intermittent feed deprivation with either treatment. In this study the pectin lecithin complex in Pronutrin **failed to prevent lesions in the gastric squamous mucosa** induced by intermittent feed deprivation."

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