Special CDI Edition

Winter 2009

# Talking Dressage

## A Newsletter dedicated to Dressage Horses

***NEW BOOK!***

**Talking Horses *Common Problems* by Dr John Kohnke 96 pages published November 2008. Packed with up-to-date information and almost 200 Handy Hints. Available from produce stores and saddleries, or obtain details from www.kohnkesown.com**

## *from the* editor

Despite the worldwide economic crisis, dressage is one of the fastest growing equine sports, suited to the young and not so young. The popularity of pony dressage at the recent Werribee competition illustrates the interest and dedication of our younger riders, who will hopefully continue on to adult dressage and higher level competition.

In this special CDI issue, we brief you on gastric ulcers in travelling and competition horses. They are a very common cause of 'picky' eating and a change in behaviour at competition.

Dressage horses, even 'laid back' Warmbloods, have the highest incidence of gastric ulcers and stomach lining irritation of any equestrian sport horse.

We also provide a short review on a relatively new syndrome referred to as Equine Metabolic Syndrome, or EMS for short!

You may have a potential candidate as the years roll on!

If you have had a problem with greasy heal, thrush and seedy toe in the winter period, even in a stabled horse working on a sand arena, we provide some helpful guidelines on how to manage these hoof conditions.

To all the competitors at the CDI, we wish you the best for your competition. And those lucky enough to visit as spectators, I am sure that you will enjoy the standard of competition and the social aspect of the CDI.

***Kind regards***
***John Kohnke BVSc RDA***

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Kohnke's Own



## *THIS ISSUE*

***Feature Article***

- **Gastric Ulcers –** Is your horse one of the 6O% of dressage horses with gastric irritation?

***Also a brief on....***

- **Equine Metabolic Syndrome –** Recognise the signs early!
- **Common Hoof Problems in Winter –** greasy heel and thrush.

### 1 Handy Hint

**Strategic Worming is Most Efficient**.

Recent new evidence of resistance by Large Roundworms to the 'mectin' family of worming compounds, and possibly even Pin worms (the ones which cause tail rubbing), has highlighted the need to carefully rotate worming compounds and plan a strategic worming schedule to help ensure maximum effectiveness and minimal risk of build-up of worm resistance. It is not necessary to use a' complete' wormer or 'broad spectrum' wormer at each worming. Plan to worm out for tapeworms (paddocked grazing horse) in mid April and Mid October with a praziquantel wormer combination, and for bots in late May and late August with ivermectin or moxidectin alone - miss the tapeworms in these wormings. Then in early spring give 2 wormings 3 weeks apart with 2 different wormers to help break the resistance cycle in the high risk season. Consult your vet for advice.

### Handy Hint 2

**Offering a Drink After Exercise.**

Most horses relish a drink after a dressage lesson or following competition. Recent studies have indicated that rapid uptake of fluids (rehydration) can be achieved by offering a drink of lukewarm water (cold with a little hot water added until it fells just warm to your hand) containing 10grams plain, fine salt per 1 litre (2 teaspooonsful per litre or 2 ½ tablespoonsful per 5 litres). Offer the warm 'salty' drink in a wide bucket or bowl when the horse is hot after work. Most horses initially will sip it and then look for it every day after exercise! It's a great way to rehydrate a horse after competition before the trip home and on arrival in the home stables!

# Gastric Ulcers – Is Your Horse one of the 60% of Dressage Horses with Gastric Irritation?

Gastric irritation and ulceration of the upper area of the stomach wall is a common finding in dressage horses which are scoped into the stomach to check for reasons why they are '**picky eaters'**, have '**mood' changes** when travelled, or they are '**grumpy'**, '**restless**' and '**sour**' when competed. It is referred to as **Equine Gastric Ulcer Syndrome**, or EGUS for short.

## Did You Know That:-

Studies have shown that up to 60% of equestrian horses can develop a gastric pain and discomfort, progressing to ulcers when in training. Dressage horses have the highest incidence of EGUS of any equestrian discipline which may be reflected by the training and 'impulsion' exercise which can 'squish' gastric acid onto the non-protected upper lining and result in 'gastric reflux' burns around the oesphageal (gullet tube) entrance into the stomach.

## Causes of Gastric Irritation/Ulceration

Studies in racing horses have shown that there are a number of causes related to the length of time in training, the training intensity and the 'anxiety' level in an individual horse. A survey carried out on racehorses in 2007 by Dr. Guy Lester and co-workers at Murdoch University in Western Australia, found that thin horses are more likely to have ulcers than their "easy keeping", well conditioned counter parts. Horses which crib-bite and wind-suck are also likely to have ulcers. Even playing a radio in the stables appeared to increase the likelihood of gastric ulcers in horse in training!

**Other factors include the type of diet, a horse's attitude and the exercise intensity, which can all contribute to the risk.**

Dr. Al Merritt, an equine gastro-enterologist working in Gainsville, University of Florida, found that exercise increases gastric pressure and results in highly acidic gastric fluid from the lower glandular protected part of the stomach, to be 'squished' up onto the non-glandular, poorly protected stomach upper lining, especially when a horse is exercised on an empty stomach.

**Stomach acidity increases in a cyclic fashion, irrespective of food being eaten, so that in between meals in a stabled horse, acid may irritate the upper lining if the horse is worked or even lies down flat on the bedding to rest. Its own weight may compress the partially empty stomach and 'squish' acid onto the oesophageal entrance and upper lining. The type of diet can also influence the efficiency of gastric buffering provided by saliva and the acid volume and strength (pH low) produced during stomach activity.**

- **High grain (gluten) diets increase gastric acid flow on entering the stomach and precipitate to the lower areas, pushing acid upwards as the stomach fills.**
- **'Sweet' feed diets fed at chest height can result in less chewing and reduced natural salivation. The more rapid consumption possibly leads to lower buffering by saliva. Studies have shown that horses take about 1000 chews to grind up a kilogram of oats, 2000 chews for hay, but only between 350-500 chews per kg of 'sweet feed', reducing the natural buffering effect of saliva with its high mucilage and bicarbonate protective action.**
- **'Anxious', excitable horses are thought to produce more gastric acid than a 'laid back' horse, especially when travelling or when working, as they are more 'tense' and tend to contract their belly muscles.**

## Handy Hint 3

**Use Long Chop (Rough Cut) Chaff.**

Studies in Germany have indicated that fibre length influences the number of chews per mouthful and volume of saliva secreted as the horse chews. Providing 'Long Chop' or 'Rough Cut' chaff with a straw length of 2-4cm, facilitates chewing and salivation, as compared to 'fine cut' racehorse chaff. Chaff with some long straws is preferable. Feeding hay in a bin at floor level is also helpful to increase salivation.

## Dressage Exercise – A Possible Cause?

It is considered by some authorities that collecting a horse up on the bit, sitting back in the saddle to encourage forward 'impulsion' and use of the hindquarters, can increase the risk of gastric 'squish' in a dressage horse, especially if a horse is worked on an empty stomach. These observations are based on the mechanics of movements where the horse uses its hind quarters and contracts its belly muscles, pushing the hindgut forward onto the stomach, liver and diaphragm when collected up to keep its back level. This can result in 'squishing' of the stomach sandwiched between the 100kg of hind gut contents and the liver and diaphragm. Horses worked for 20-30minutes daily 'on the bit' and with 'impulsion', appear to have a higher incidence of EGUS.

## Typical Signs

Some horses, especially 'easy-keeping' Warmbloods with a naturally good appetite, may **not** develop the typical signs of 'picky' eating' after hard training, travelling and competition. They may still have severe gastric irritation and discomfort. **Many of these horses develop 'grumpy', 'aggressive' and 'sour' temperaments when worked or after travelling. They may 'paw the ground', be unco-operative and resent being saddled up, often appearing to be sensitive around the girth as the girth is tightened, or 'groan' as you mount.**

Many horses will readily eat hay or graze, but 'pick' at their hard feeds or eat very slowly. Some stand with their elbows against the chest when eating. Others '**slobber**' and '**chew the bit'**, or '**crib**' on rails in the wash bay after exercise, possibly in an attempt to salivate to help buffer the 'acid' burn in the stomach.

Gastric irritation and ulceration are best diagnosed by scoping the horse with a long gastric endoscope, or by the improvement in appetite and behaviour shown after 3-5 days of dosing with an anti- ulcer medication to reduce gastric acid production.

## Handy Hint 4

**Side-Effects from Long Term Anti-Ulcer Drug Therapy**.

Long term gastric acid suppression in humans has been associated with reduced calcium uptake from the small intestine as an acidic environment facilitates calcium absorption. Long term dosage in race horses is possibly linked to subchondral bone collapse in the joints due to developing osteoporosis, which is an established side-effect in humans taking acid suppressing anti-ulcer medication.

# Five Basic Approaches to Minimise Gastric Discomfort

## 1. Anti-Ulcer Therapy

A course of an ulcer therapy drug, such as ranitidine, cimetidine or omeprazole, as prescribed by your vet, will help to reduce gastric acid secretion and relieve the irritation and discomfort associated with EGUS over a 5-7 day period. If a horse's appetite improves over this time, then ongoing therapy may be required for 2-3 weeks. However, the relative dose rate of anti-ulcer therapies to suppress gastric acid secretion is higher in the horse relative to humans, because horses secrete up to 10 litres of gastric acid per day in a continuous cyclic fashion.

## 2. Protective Coatings

There are many claims for 'protective' coatings to help reduce the direct contact of gastric acid with the stomach upper lining. Antacid preparations containing bicarbonate of soda have little benefit because of the large amounts of alkaline buffering required to be effective in neutralising the volume of gastric acid secreted on a continuous basis in a horse.

A number of herbal compounds, volcanic aluminium silicates (zeolites) and slippery powder/pastes are available, but they are largely ineffective in the amounts normally given to sustain protection or buffering over an extended period.

**Recent observations indicate that feeding mucilage compounds with the feed can facilitate chewing and hence assist salivation, the natural stomach acid buffering mechanism as a horse chews its food. These compounds are damaged by long term storage of feed and by feed processing during steam rolling, micronisation, pelleting and extrusion , so that supplementing with a concentrated source will help saliva to cling at the sites around the oesophageal inlet and upper unprotected gastric lining.**

A daily supplement of concentrated mucilage compounds, such as Kohnke's Own Gastro-Coat, may help facilitate chewing by making the food being chewed sticky and thus prolonging chewing and salivation, which in turn, restores the natural buffering action of saliva when swallowed as a buffer to control excess gastric acid. If Gastro-Coat is mixed with lucerne chaff (4-5 litres) and fed about 30 minutes before exercise, it will assist in maintaining essential buffering to the stomach wall when the horse is exercised. Refer to Handy Hint 5 & 6. Feeding lucerne hay (or chaff) before exercise has been shown to reduce the risk of gastric irritation and ulcers by 50%. Lucerne contains natural buffering salts, mucilages and facilitates chewing and salivation. Cereal hay and chaff has minimal buffering activity.

## 3. Supplements of Yoghurt

Recent studies at University of Queensland, Gatton Campus in 2007, indicated that feeding a daily supplement of 50-75ml plain yoghurt containing Lactobacilli *spp*, helped increase the fermentation of sugars and non-structural carbohydrates in the stomach, denying potentially ulcer causing invasive bacteria a'food' source to colonise the upper stomach wall to result in erosion and ulceration.

### HANDY HINT 5

**Feeding Prior to Exercise**

Observations indicate that adding a 50mL supplement of an acidic juice, such as apple cider vinegar, which many horses relish, diluted to 100mL with water to reduce mouth irritation in sensitive horses, may help to acidify the feed and encourage salivation. The acid taste may stimulate the release of more saliva to assist in the natural buffering of the stomach lining at the oesophageal inlet and the upper non-protected gastric lining. This can be combined with a daily supplement of Kohnke's Own Gastro-Coat in the feed to help provide natural mucilage compounds to maintain chewing and salivation. This combination mixed into lucerne chaff and feed before training and travelling, may help to assist digestive function and maintain the appetite.

### HANDY HINT 6

**Using Yoghurt, Lucerne and a Mucilage Supplement to Maintain Gastric Function.**

The risk and severity of gastric irritation and ulcers may be minimised by feeding 500g of dampened lucerne hay or chaff about 30 minutes prior to exercise. Administer 50-75mL of plain yoghurt by syringe over the tongue 5 minutes prior to giving the main feed following exercise. A supplement of mucilage compounds to assist normal salivation and chewing, such as Kohnke's Own Gastro-Coat, can be mixed into a small amount of chaff as topping over this feed. The dampened lucerne hay or chaff can be given as a routine 30 minutes prior to travelling, along with the Kohnke's Own Gastro-Coat in the chaff, and again after exercise prior to return travel. If given on a daily basis from the start of equestrian training, this routine may help to maintain a normal gastric environment, digestive function and appetite, without the need for ulcer medication in most horses.

## 4. Supplements of Omega-3 oils

Omega-3 fatty acids, such as in Energy-Gold oil, may also maintain natural anti-inflammatory activity on the gastric lining in horses on grain, chaff and hay based diets low in fats. Supplements of 80-100mL daily are recommended.

## 5. Supplements of Fine Limestone

Limestone is calcium carbonate, which has a sustained alkaline buffering action on stomach acid. Dolomite is a calcium and magnesium carbonate complex in a siliconised sand-like structure, which has less effect in this way. Feeding 40g fine Ag- lime mixed into lucerne chaff and Gastro-Coat, 30 minutes before feeding, helps facilitate chewing and salivation increases the natural buffering capacity of thick, tenacious saliva when a horse is exercised or travelled.

***Note:- More Information on the causes, Signs and Management of Gastric irritation and ulcers is provided in the book Talking Horses Common Problems Edition 1 pages 80-83 on special at the CDI KohnkesOwn stand for $25.00***

# Equine Metabolic Syndrome – Recognise the Signs Early!

Have you noted the following signs in your dressage horse lately?.....

1. **Increased fat build-up behind the shoulder, above the tail-butt and a harder, more 'cresty' neck.**
2. **Less tolerance to exercise and training – lacks impulsion and stamina when working.**
3. **Loss of muscle mass along the topline and hindquarters, although not losing overall weight.**
4. **Tendency to be 'sore in the feet' although not a full blown laminitis, even on a low grain diet, but with access to pasture 12/24.**
5. **Slight 'curl' on the end of the hair over the neck, shoulder s and barrel.**

Many Warmbloods are 'good-doers' or 'easy-keepers' and tend to put on weight easily. However, if you have a horse(s) which is 10-12 years of age, a little over weight and has been fed hard feeds when in training over 2-3 years without a winter 'strip-off during a spell, then he may be suffering from early Equine Metabolic Disease (EMS) due to a developing intolerance to glucose and or insulin resistance – similar to Type II diabetes in humans.

## Do You Require More Information?

If you would like more detailed information on EMS, Equine Cushings Disease and Insulin Resistance – email newletters@kohnkesown.com for Talking Horses Issue E14 and E16 and Factsheet 40. More information is also available on Seedy Toe (Factsheet 35) and Hoof Abscesses and Thrush (Fact sheet 36).

### Handy Hint 7

**Reduce Ulcer Medication Once Symptoms are Controlled.**

Reducing the daily dose rate of an acid-suppressing anti-ulcer medication to a minimum once the appetite improves, is important in older horses. Progressively changing onto a mucilage preparation and feeding a small amount of dampened lucerne hay or chaff prior to exercise, whilst travelling to competition, and again after competition is considered a safe and effective alternative to maintain gastric function and minimise acid irritation.

### Handy Hint 8

**Confirming EMS and Insulin Resistance**

A blood sample taken 60-90 minutes following a cereal grain based meal or, 'grainy' sweet feed mix, can screen for insulin resistance, as it will cause a highly elevated circulating insulin level. More tests using a glucose challenge test can be used to confirm insulin resistance and early onset of Equine Metabolic Syndrome (EMS).

***Note:- More Information on EMS can be obtained by reading Talking Horses Issues 14-16, or the Talking Horses Common Problems book pages 57-59.***

### Handy Hint 9

**Keep the Bedding and Yards Dry**

Thrush is a fungal microbe. The moist, anaerobic (low oxygen) conditions of wet or highly contaminated bedding and outside yards will help perpetuate the infection. Regularly "muck out" the stable and replace bedding with dry bedding. Wood shavings and saw dust have lower fungal (mould) counts than straw or rice hulls used for bedding. Keep saw dust bedding slightly damp to minimise dust and clean out the impacted bedding from the sole and around the frog each day. In outside yards, improve drainage and if necessary, replace heavily contaminated sand or soil with new, clean sand to help keep the surface better drained and less contaminated.

### Handy Hint 10

**Reducing Frog Impaction**

After cleaning the sole and frog each day, apply a coating of Hoof-Seal once the thrush infection is under control. Within 5-7 days, the Hoof-Seal applications can be extended to 1-2 times per week. The film of Hoof-Seal will help minimise the collection and impaction of organic, contaminated bedding and soil in the sole and frog. Under wet conditions, daily applications are recommenced to help maintain a water repellent film.

## *Common Hoof Problems in Winter - Some handy hints.*

Horses are prone to developing greasy heel, thrush and occasionally seedy toe during the winter- especially when grazing wet paddock areas or confined to stables with damp, highly contaminated bedding.

Horses with white socks, particularly on the hind pasterns, are prone to developing greasy heel when exposed to damp winter conditions, wet dewy grass. It is primarily thought to be triggered by a 'sunburn-like' reaction on the non-pigmented hind pasterns. This risk is increased as the angle of incidence of the sun is reduced to 28-30% in Southern Australia during the winter time, which is low enough to expose the heels to excess sunlight as a horse grazes facing away from the sun. Combined with wet damp conditions and contaminated mud, which allows microbes to invade the softened skin, greasy heel develops and can cause severe inflammation, grease and scabs to accumulate on the white pasterns above the heels.

### Handy Hint 11

**Greasy Heel – A Useful Remedy**

Gently scrub off the grease with a warm solution of laundry soap (eg. sunlight soap) using a soft brush. If very inflamed, apply a cortisone/antibiotic preparation for 3-5 days, as prescribed by your vet, then scrub off the scabs. Take care when using prior to competition. Consult your own vet for withdrawal advice. Pat dry, apply weak PVP iodine solution (eg Betadine 10%) twice daily for 2-3 days (leave it on for 10 mins before rinsing it off), or until any broken skin is healed. Each morning apply a thin coating of a zinc cream or sunscreen lotion to reduce UV reaction. It will help prevent recurrence, repel excess moisture and minimise skin cracking.

### Handy Hint 12

**Controlling Thrush by Cleaning the Hoof**

After removing surface contamination by lightly scrubbing the frog and heels with 10% Betadine Iodine solution and Sunlight soap (no detergent), soak a cotton wool pad with a solution of 50:50 water and 3% Hydrogen Peroxide solution to help 'oxygenate' the area – apply for 20-30 minutes, wrapping the hoof in kitchen film to keep it in place. Remove the pad and then apply a pad soaked in 10% Betadine for 12 hours, secured in place with kitchen wrap or a bandage. Repeat the above process over a 2-3 day period. Consult your vet for advice if the condition does not improve or the horse remains lame

### Handy Hint 13

**Keep Noise and Interruption to Minimum in the Stables**

Horses may become 'agitated', anxious and unsettled by noise and hoof trimming and other horses being shod in the stable aisle. To minimise disturbance, allocate a 4-5 hour quiet resting and feeding time after training each day. Always take a horse out to another location for drenching, teeth rasping and farriery to avoid disruption and anticipation 'fear' in other stabled companions which may increase the risk of EGUS.