



# EQUINE SCIENCE UPDATE

Reports from the world of equine science

Summer 2015

## Benefit of magnesium supplement for osteochondrosis



A report in the *Journal of Equine Veterinary Science* describes two studies that investigated the benefit of magnesium-containing supplements for preventing osteochondrosis (OC) in foals.

The studies looked at whether supplementing the diets of foals up to the age of 12 months with magnesium and phosphorus influenced the development of osteochondrosis. They also evaluated the use of bone markers osteocalcin and (CTx-1: c-terminal telopeptide of type-1 collagen) as indicators of OC.

For the first study, 64 mares with foals up to five months old, on five farms, were divided into two groups. One group received supplementation with minerals (an oral paste containing 4.05g of magnesium and 2.50 g of phosphorus), the other received a placebo. The research team collected blood samples from the foals at 2, 8, and 16 weeks of age, and measured osteocalcin, CTx-1,

calcium, magnesium and phosphorus levels. At the same time, they measured calcium, phosphorus and magnesium in the mares' milk.

At the end of the study, they examined the foals radiographically to assess the presence and severity of osteochondritic lesions in the knee, hock, and fetlock joints.

They found a significant difference in the average prevalence of osteochondrosis between the two groups. Of the foals receiving the supplement, 21.9% had OC, while 41.9% of the placebo group were affected.

Foals with OC had significantly lower magnesium levels in the blood at 16 weeks of age.

The amount of exercise the foals had also seemed to affect the prevalence of osteochondrosis.

The researchers found that OC was

less common on farms where the foal had more opportunity to exercise.

Osteochondrosis lesions are usually at their peak at about 5 months of age. After that, they may regress but there is usually no significant improvement after 12 months of age.

A second study followed 54 foals from age 5 to 12 months. One group received daily supplementation with pellets providing 4 g of magnesium, 2.5 g of phosphorus, and 1.7 g of calcium. The second (placebo) group received no pellets.

The researchers found that there was no change in the prevalence of OC in the placebo group. However, the group receiving the supplement showed a 14.3% fall in OC.

They conclude that magnesium supplementation, and more exercise, could significantly reduce the prevalence of osteochondrosis in foals. They add that, in particular, the OC prevalence of the knee joint was very low after supplementation of magnesium.

For more details see:

Feeding magnesium supplement to foals reduces osteochondrosis prevalence

Guillaume Counotte, Gerrit Kampman, Vincent Hinnen  
*Journal of Equine Veterinary Science* 34 (2014) 668–674

[Doi:10.1016/j.jevs.2013.12.009](https://doi.org/10.1016/j.jevs.2013.12.009)

## New technique to prevent nephrosplenic ligament entrapment

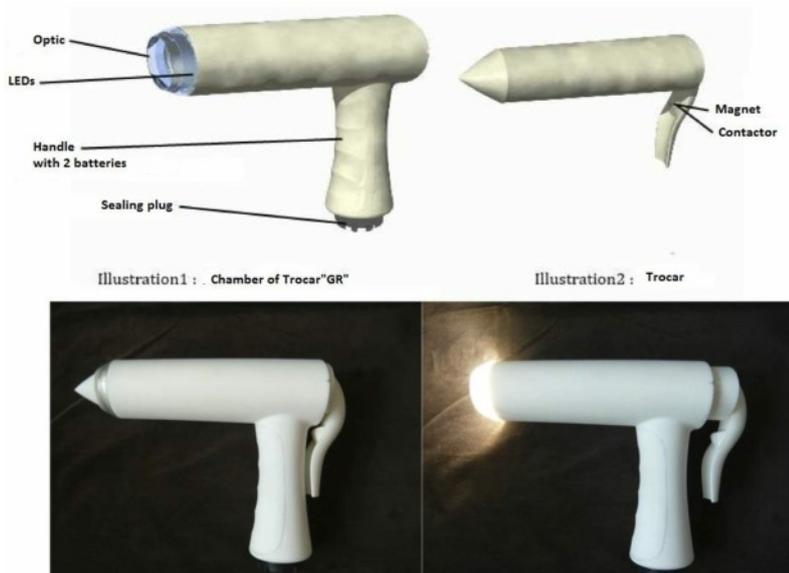


Fig.1: Trocar version 1 – LEDs light up when the Trocar is removed from the chamber . Photo: Christian Bussy

Nephrosplenic entrapment of the colon can cause colic in horses of all ages and breeds. The colon moves from its normal position on the floor of the abdomen, up the left side of the body wall, and comes to lie over the ligament between the kidney and the spleen. This leads to the colon being obstructed. It becomes distended, causing pain and colic.

Cases typically respond to medical treatment, although sometimes surgical treatment is necessary. The problem can recur in some horses. To prevent this happening, the space between the spleen and kidney can be closed laparoscopically. This technique requires experience, expensive equipment, and skilled staff, and can be time-consuming.

A new, simpler, technique has been developed that allows the nephrosplenic space to be closed in the standing horse in about 30 minutes. .

The procedure uses the "GR Trocar", a specialised trocar

instrument, which is the result of four years of research and development by equine veterinary surgeon Dr Christian Bussy.

The instrument is an ovoid (4 cm by 6 cm) plastic conical tube, composed of two intertwined 20cm long elements (chamber



Fig.2: Incision (red line) in the left para-lumbar fossa, midway between the last rib (white arrow) and the lower part of the tuber coxae (yellow arrow). Photo: Christian Bussy

and trocar). Illumination is provided by a ring of LEDs incorporated into the end of the chamber (**Fig1**). Control and batteries are located in the handle. Light or camera extension cords are not required. All the components can be sterilized.

Dr Bussy explains that the horse is fasted for 48hrs prior to surgery, and restrained in stocks using Detomidine (0.02mg/Kg IV) and Butorphanol (0.01mg/Kg IV). Sedation during the procedure is maintained by an IV infusion of Detomidine.

"The left flank is clipped over a wide area, followed by surgical preparation of the site and sterile draping (**Fig2**). A subcutaneous and intramuscular infiltration with 20 ml of lidocaine is performed in the left para-lumbar fossa, halfway between the last rib and the tuber coxae at the site of the trocar insertion. A vertical 6 to 8 cm skin and external oblique muscle incision is performed in the left para-lumbar fossa, followed by blunt dissection of the internal oblique and abdominal transverse muscles along their fibres direction.

"Scissors are used to make a small puncture into the peritoneum, which is enlarged manually, allowing the introduction of the trocar by simultaneous inward pressure and rotational movement until the abdomen is entered. The trocar is then removed from the chamber.

"An anatomical assessment of the area is initially performed, by direct visualization through the trocar chamber, the LEDs providing a sufficiently bright but cool illumination of the interior of the abdominal cavity. The chamber is then directed between the spleen and left kidney into the nephrosplenic space for appropriate visualization of the

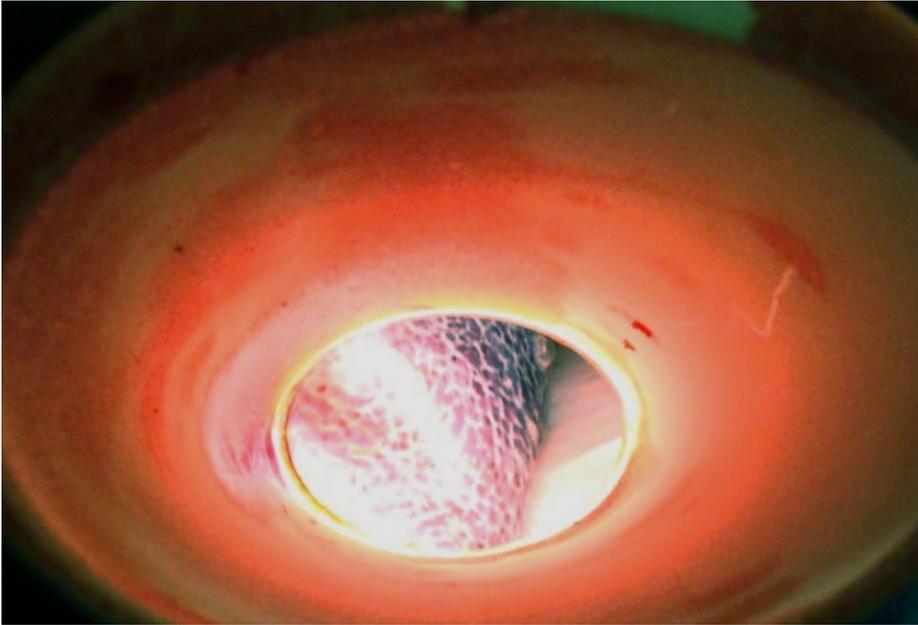


Fig 3: Looking through the trocar, showing the spleen and peri-renal fascia. Photo: Christian Bussy

abdomen (Fig3).

"A long purpose-made needle holder is directed through the chamber and a simple continuous suture pattern of resorbable poly-filament polyglactine 910 (Polysorb ND, loop No. 2) on a 65mm half-curve atraumatic needle is placed between the dorsal edge of the spleen and the dorso-lateral part of the perirenal fascia. The suture pattern is started cranially, ending at the caudal pole of the left kidney. The chamber is then removed and the muscles and subcutaneous layers are closed with simple continuous patterns. The skin incision is closed with staples. Antimicrobials and anti-inflammatory drugs are administered immediately prior to surgery and continued for five days."

Dr Bussy reports that he has performed the procedure on 60 horses (mainly riding-horses), over a four year period with no major complication. The appearance of a subcutaneous seroma was noted occasionally (2 cases) but quickly resolved within 3 or 4 days, when drained after removing a few staples at the bottom of the incision. Three horses were reviewed by

laparoscopy a month later, confirming that the nephrosplenic space was closed.

"Compared to a classic coelioscopy, the procedure always took less than 30 minutes to be performed instead of one hour and half on average, and the cost of the equipment (trocar plus instrumentation) is 90 % cheaper" he added.

"This procedure requires to change one's mind and habits but the technique is easily learned and relatively inexpensive. The procedure also requires a larger, therefore less appealing incision. However, it is also presumably less risky than the alternative techniques of nephrosplenic space closure because only one incision is needed and the entire procedure is made under direct visualization, thus avoiding risks of visceral puncture and insufflation accidents. Horses returned to full activity after four weeks of rest as prescribed for the traditional technique, with no complication noted.

"Advantages of this technique and instrumentation include: no requirement for intra-abdominal insufflation, a single portal site, and absence of cable connections

cluttering the surgical field. The use of a loop wire greatly facilitates the procedure by avoiding having to perform an extracorporeal knot at the most cranial part of the suture. With a chamber of this size and shape, it was possible to use the widest needle that could be mounted correctly on the needle holder and then allow passing between the renal fascia and the dorsal edge of the spleen with only one bite and consequently not needing the use of an additional instrument, therefore reducing the surgery time by more than 50%."

He adds that, since 2015, a second version (**Fig4**) of the trocar, with three sizes of extensions, allows it to be used

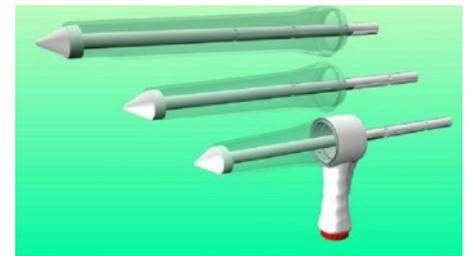


Fig.4: Trocar Version 2 with three different sizes of extension: 20 cm, 30 cm and 40 cm. Photo: Christian Bussy

for many other surgeries in the abdomen: ovariectomy, visceral biopsy, uteropexy and cryptorchid. "With the new version, we also work easily to repair cervical laceration or rectal tear."

He points out that the specialised trocar instrument is also useful for procedures such as ovariectomy, uteroplexy, repair of cervical lacerations, rectal tears and recto-vaginal lacerations.

A video of the procedure is available : <http://youtu.be/KtlnA2xKn3s>  
See also : [www.grvi.fr](http://www.grvi.fr)

## Ageing tail hair

A common method for learning more about an animal's ecology and behaviour is to analyse the chemical composition of its hair. This involves the analysis of isotopes, which are variants of a chemical element with different atomic weights. The ratio of different isotopes of hydrogen, oxygen, carbon and nitrogen in a sample can provide important insights on water intake, nutrition and habitat.

Tail hair, because of its length, can provide information over a long period of time. But how "long" is one centimetre?

Hair does not grow at the same rate in all horses. Researchers at the Vetmeduni Vienna have now solved this problem. They developed a method to correctly assign individual hair growth to seasons and thus to a specific time frame. The results have been published in the journal *Rapid Communications in Mass Spectrometry*.

Martina Burnik Šturm and Petra Kaczensky from the Research Institute of Wildlife Ecology at the University of Veterinary Medicine Vienna investigate the ecology of free-ranging horses and wild asses in the Gobi desert of Mongolia. In order to find out how different wild equid species live together in the Mongolian Gobi, what they eat, drink and how they migrate, the scientists look for answers in hair.

The researches quickly ran into one problem. What does one centimetre of hair actually mean in terms of time? Does one centimetre refer to a week, a month or more? Measuring how fast hair grows in a particular species does not solve the problem because hair grows at



A Przewalski's mare with her foal in the Mongolian Gobi desert.  
Photo: Martina Burnik Šturm

different rates in each individual animal.

To answer this question, first author Martina Burnik Šturm developed a method to clearly align hair segments to time. The habitat of free-ranging equids in Mongolia helped her in this approach. The Mongolian Gobi is subject to extreme climatic conditions.

Temperatures vary greatly at different times of year, and so does the composition of the chemical elements in the hair. By comparing the isotope data from hair with satellite information freely available from NASA's Earth Observing System Data and Information System (EOSDIS), she assigned a summer-winter rhythm to each hair. This allowed her to calculate the exact time corresponding to one centimetre of hair.

On average, the tail hair of Mongolian wild asses reaches one centimetre in 19 days.

Przewalski's tail hair takes 17 days and the tail hair of domestic horses only 13 days to grow one centimetre.

"We found that tail hair growth varies greatly between species and even between individuals. To assume that closely related species exhibit similar hair growth rates and to use average growth rates for individuals will most probably lead to incorrect results", states Burnik Šturm.

"Isotope analysis of hair is a common method in the study of animal nutrition and migration. Our method makes it possible for the first time to establish exact time lines for an animal's ecology and behaviour. Previous time lines were estimations and not entirely accurate. Now researchers have a relatively simple method with which to correctly interpret their data," she says.

Tail hair is assumed to provide researchers with information about the ecology and behaviour

of Przewalski's horses, wild asses and free-ranging domestic horses in the Mongolian Gobi. All three species share the same habitat in a 9,000 square kilometres strictly protected area of southwest Mongolia. Closely related species usually compete for food. Moreover, the grassland in the region is quite barren. A key question for the researchers is: "What allows the animals to coexist in this region." The project is still ongoing.

For the isotope analysis, the tail hair is cut into one centimetre long segments and placed individually in little tin or silver cups before being burnt at a temperature of 1,450 degrees Celsius. Isotopes are then measured in the developing gases using mass spectrometry, a method to sort individual atoms by mass.

Today, isotope analysis is used in many different fields. The method can help to determine the regional origin of animals, food or natural fibres. Isotope analysis is also used to detect cases of doping or environmental contamination.

For more details see:

A protocol to correct for intra- and interspecific variation in tail hair growth to align isotope signatures of segmentally cut tail hair to a common time line  
Martina Burnik Šturm, Budhan Pukazhenth, Dolores Reed, Oyunsaikhan Ganbaatar, Stane Sušnik, Agnes Haymerle, Christian C. Voigt and Petra Kaczensky  
Rapid Commun. Mass Spectrom. (2015), 29,1-8.

[dx.doi.org/10.1002/rcm.7196](https://doi.org/10.1002/rcm.7196)

## Early signs of resistance to ivermectin and moxidectin



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Although moxidectin and ivermectin remain highly effective against gastro-intestinal strongyles, a European study has found signs that parasites are starting to develop resistance.

Failure to reduce the faecal egg count to zero within 2-3 weeks of treatment is often not the first sign of emerging anthelmintic resistance. If this is the only test that is carried out to monitor resistance the extent of the problem may be underestimated.

The earliest sign of emerging resistance may be a reduction in the time taken for worm eggs to reappear in the faeces after treatment (egg reappearance period: ERP).

The research, by Thomas Geurden and others, was carried out on farms in Belgium, Italy and the Netherlands, that had wormed regularly over recent years. A full report has been published in the journal *Veterinary Parasitology*.

The study evaluated the efficacy of an oral treatment with ivermectin or moxidectin against gastro-intestinal strongyles in naturally infected horses. This was done by performing a faecal egg count reduction test (FECRT) and by monitoring the egg reappearance period.

The faecal egg count reduction test (FECRT) showed that both ivermectin and moxidectin were

highly effective. Two weeks after treatment the faecal egg count was reduced to zero in 100% of horses in all but 5 of the 64 treatment groups.

However, the results showed a shortened ERP for both ivermectin and moxidectin in all three countries involved in the study. The ERP was decreased for at least one of the anthelmintics on 17 out of 32 study sites (53%). On 9 sites (28%) the ERP was decreased for both anthelmintics.

The findings highlight the high efficacy of moxidectin and ivermectin 14 days after treatment. However, they also reveal early signs of developing resistance to both anthelmintics in more than half of the study sites.

For more details see:

Decreased strongyle egg re-appearance period after treatment with ivermectin and moxidectin in horses in Belgium, Italy and The Netherlands

T Geurden, D van Doorn, E Claerebout, F Kooyman, S De Keersmaecker, J Vercruyssen, B Besognet, B Vanimisetti, A F di Regalbono, P Beraldo, A Di Cesare, D Traversa  
*Veterinary Parasitology* (2014) 204, 291–296

[doi:10.1016/j.vetpar.2014.04.013](https://doi.org/10.1016/j.vetpar.2014.04.013)

## Monitoring fat horses

In last year's UK National Equine Health Survey (NEHS) overweight horses or ponies were recorded in 16.9% of cases, which was more than double the previous year's figure of 7.8%. A study of predominantly outdoor living horses and ponies by the WALTHAM® Equine Studies Group found an even higher prevalence of obesity: nearly 30% coming out of the winter and around 35% in the summer. Obesity presents many health risks including Equine Metabolic Syndrome and an increased risk of laminitis. The NEHS also showed that only 59% of respondents assess their horse's weight regularly, using weigh tapes and body condition scoring.

Accurate assessment of fat deposits can help to identify levels of obesity and enable monitoring of weight loss. While body condition scoring is reasonably accurate and is a valuable way of keeping track of weight on a routine basis, especially when carried out by experienced investigators, it is subjective and therefore potentially less accurate for many owners or inexperienced assessors.

The aim of the study was to develop a body condition index (BCI), similar to the body mass index (BMI) used in humans, based on objective body measurements that correlated well with actual body fat percentage. The study involved 22 adult horses and ponies of mixed breeding with body condition scores ranging from 4 to 8.5 out of 9. Body fat percentage was accurately determined using a proven scientific method and an objective body condition index was derived based on repeated measurements of heart girth, belly girth, body length, neck circumference and height to the withers. Body condition scoring (by experienced investigators) correlated reasonably well with body fat and the new objective BCI also gave a similar good correlation.

The new Body Condition Index is designed to complement regular Body Condition Scoring. It provides



a step up in terms of objective weight monitoring, specifically in the early stages of a weight loss programme when we have previously shown a BCS may not change, most likely because the horse or pony is initially losing internal fat, which does not show on the outside. With longer-term use the new BCI may also help owners to check their accuracy of body condition scoring and become more confident and efficient with it.

Clare Barfoot, Registered Nutritionist at SPILLERS® said: "The new index is a very promising tool for a more objective estimation of body fat % in the field. It could be especially useful if horses and ponies are assessed by more than one person, particularly if they are not experienced at body condition scoring. A more accurate way of monitoring fat, used in conjunction with body condition scoring, should make it easier for owners to manage weight loss programmes more effectively and this means healthier horses!"

The paper "Derivation of a new body

condition index to estimate body fat percentage from morphometric measurements: comparison with body condition score", by Samantha Potter, Faculty of Veterinary Science, The University of Melbourne, Victoria, Australia, Pat Harris, WALTHAM Equine Studies Group, WALTHAM Centre for Pet Nutrition, Leicestershire, UK, & Simon Bailey, Faculty of Veterinary Science, The University of Melbourne, Victoria, Australia was presented at the Equine Science Society Symposium May 2015 Florida.

For more details see:

Derivation of a new body condition index to estimate body fat percentage from morphometric measurements: Comparison with body condition score. S.J. Potter, P.A. Harris, S.R. Bailey *Journal of Equine Veterinary Science*, (2015) 35, pp 410-411

## Racehorse risk from cobalt misuse



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In an article published in *The Veterinary Journal*, scientists from the University of Surrey warn about the numerous risks posed to racehorses from the misuse of cobalt chloride, a banned performance-enhancing agent that has been used illegally by trainers in Australia and the USA.

“Blood doping” aims to enhance athletic performance by increasing the oxygen carrying capacity of blood, in contravention of the racing regulations. A prime example is erythropoietin (EPO), the hormone that stimulates production of red blood cells.

Cobalt chloride can mimic the effect of low oxygen levels (hypoxia) and induce hypoxia-like responses, such as production of EPO.

However, the team of researchers explain that the administration of excessive levels of cobalt chloride can result in serious side effects, including cardiovascular issues, potential nerve problems, thickening of the blood and thyroid toxicity. The researchers also point to the lack of evidence for enhanced

performance in horses and human athletes.

Cobalt is an essential trace element. It is important for the formation of the vitamin B12 complex, and is involved in the oxygen-carrying function of red blood cells. Cobalt is required by all horses in order to survive, and is normally present at very low levels in various feedstuffs. On the other hand, excessive amounts of impure formulations of the substance, can lead to severe side effects, such as long-term damage to vital organs such as the heart.

Indeed in humans, cobalt salts have been used in the past to treat rare forms of anaemia. However, it has been associated with a variety of adverse effects, including gastrointestinal neurologic, cardiovascular, and thyroid problems, and as a result, its use has been discontinued.

Cobalt chloride is not a prescription medication and various cobalt salts can be purchased from a variety of commercial sources. The salts are impure and are inexpensive,

easily accessible, and not subject to medicine regulations.

“We have grave concerns over a potentially lethal practice in the race horing industry, and are most concerned that some trainers continue to use Google as their source of information,” said lead author Professor Ali Mobasher from the University of Surrey.

“It is the duty of veterinary surgeons working in the industry to ensure that horse trainers are aware of the dangers of its ‘amateur’ use.

“Currently there is no evidence to suggest that cobalt chloride can enhance human or equine athletic performance. It is our hope that this study will increase greater awareness and prompt a broader discussion about the misuse of this substance.”

For more details see:  
Cobalt chloride doping in racehorses: Concerns over a potentially lethal practice  
Ali Mobasher, Christopher J. Proudman  
*The Veterinary Journal* (2015)  
[doi:10.1016/j.tvjl.2015.04.005](https://doi.org/10.1016/j.tvjl.2015.04.005)

## Minimising jump racing risk



Jump racing ("National Hunt racing") poses a greater risk of injury, both fatal and non-fatal, than does flat racing.

The Horserace Betting Levy Board (HBLB) has been funding research into identifying factors that could be modified to minimise the risk of injury during jump racing in GB.

This was the largest study of its type to be conducted into British jump racing, and was led by Dr Tim Parkin of the Glasgow Veterinary School.

The researchers reviewed records of all jump racing starts in Great Britain between 2000 and 2010. They looked at incidents such as fatal injuries, hind limb fracture, upper forelimb fracture, tendon injury and epistaxis (bleeding from the nose).

During the period covered by the study, there were approximately 300,000 starts. There were 10,000 injuries and 1500 (c0.5%) fatal injuries.

Factors that they identified as increasing the risk of serious injury included:

1. Horses with a greater proportion of their career to date in flat racing
2. Firmer going
3. Longer races
4. Fewer starts in the period more than one year prior to the current race
5. Jump racing between June and August.
6. Previous occurrence of same injury
7. Fewer starts in the period between 10 and 12 months prior to the current race
8. Older horses
9. Fewer starts in the previous three months

The British Horseracing Authority has established a working group to identify potential areas for change, that could be adopted by the racing industry and which, based on this research, should help to reduce the injuries in jump racing.

An online presentation of the research findings has been published by the HBLB:

<http://www.hblb.org.uk/documents/blog/Prj750%20Parkin.pdf>

## New Equine Health Study

The third national equine study by the U.S. Department of Agriculture's (USDA) National Animal Health Monitoring System (NAHMS) gets underway this month. Equine 2015 will take an in-depth look at U.S. equine operations and aims to provide the industry with new and valuable information about trends in the industry since 1998.

Preliminary work, in discussion with owners, others involved in the equine industry and government officials, identified topics to be covered by the study. These were:

- Describe trends in equine care and health management for study years 1998, 2005, and 2015.
- Estimate the occurrence of owner-reported lameness and describe practices associated with the management of lameness.
- Describe health and management practices associated with important equine infectious diseases.
- Describe animal health related costs of equine ownership.
- Evaluate control practices for gastrointestinal parasites.
- Evaluate equines for presence of ticks and describe tick-control practices used on equine operations.
- Collect equine sera along with equine demographic information in order to create a serum bank for future studies

Phase 1 of the study, runs from May through July 2015. Owners cannot volunteer to take part in the study. Instead, participants will be selected by the National Agricultural Statistics Service (NASS) from

a list of places that qualify as a farm – places that did, or could have, sold at least \$1000 of agricultural products, or have 5 or more horses. Commercial operations such as racetracks are excluded.

Selected owners will be approached to complete an initial questionnaire.

If willing, the owner may continue to Phase 2 of the study which involves a visit to their farm by representatives from USDA's Veterinary Services to administer a second questionnaire. This will take place between summer and mid-December 2015. Owners may then opt to participate in biologic sampling, including collection of blood and fecal samples, an exam for ticks, and collection of tick specimens.

Nathaniel A. White II, DVM, MS Diplomate ACVS, Professor Emeritus of Equine Surgery at the Marion duPont Scott Equine Medical Center, and Past President of the American Association of Equine Practitioners said: "NAHMS Equine 2015 will provide valuable information about disease prevalence and the impact disease has on horse health. This will help create awareness, improve horse husbandry to prevent disease, and focus research on the most important diseases affecting horses, including evaluating parasite and tick control."

"Past NAHMS equine studies have been used as an important resource for horse owners and all parts of the horse industry."

For more information on the Equine 2015 study see:

[www.aphis.usda.gov/nahms](http://www.aphis.usda.gov/nahms).

To see previous NAHMS equine studies go to:

[http://www.aphis.usda.gov/animal\\_health/nahms/equine/index.shtm](http://www.aphis.usda.gov/animal_health/nahms/equine/index.shtm)

## Vets with Horsepower ride again



The Vets with Horse Power team hit the road again this June. This time the motorbiking vets travelled through the UK and Ireland for 5 days. En route they delivered lectures for both vets and horse owners.

This year they are raising money for the Gambia Horse and Donkey Trust, to equip a new veterinary centre at Makasutu, in Gambia which is being built with money raised from last year's tour.

When completed, the centre will provide an equine hospital, stabling for 25 in-patients, offices, a visitor centre and a lecture room together with accommodation for volunteers, students and staff.

Leader of the team, Derek Knottenbelt says "We need the help of good people to support our efforts to equip the GHDT education and clinical centre. It is a vital development in the education of vets and owners /

children in Gambia and the surrounding countries. If there was ever any horse or donkey that needed the best available veterinary care it would surely be the one upon whom the lives and livelihoods of a family with two children depend! "

"PLEASE PLEASE SUPPORT US in whatever way you can"

You can sponsor the Vets with Horsepower team through Virgin Money Giving. Donations will be passed to Gambia Horse and Donkey Trust.

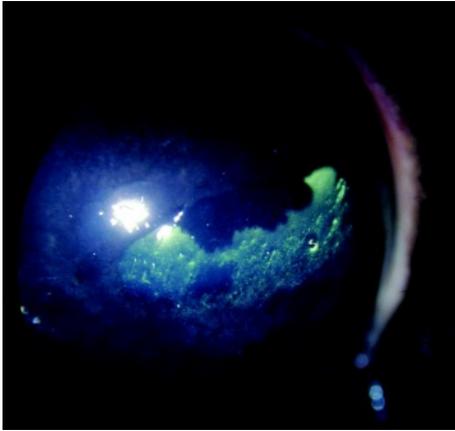
[www.virginmoneygiving.com/team/VwHP2015](http://www.virginmoneygiving.com/team/VwHP2015)

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See: [www.equinescienceupdate.com](http://www.equinescienceupdate.com) for details.

## Latest equine ophthalmology research



The latest research in equine ophthalmology is now much easier to view, thanks to joint online publication of a special virtual issue of 22 ophthalmology papers from Equine Veterinary Journal, Equine Veterinary Education and Veterinary Ophthalmology, all journals available at Wiley Online Library.

"Clinical equine ophthalmology: The current state of the art" brings together papers on some of the most significant advances in equine clinical ophthalmology into a single issue to make them more readily available to a wider audience. The issue contains information of direct relevance to all sectors of the veterinary profession from general practitioners and specialists to researchers, surgeons and students, covering common diseases, surgical procedures and outcomes.

The new publication was devised and compiled by a prestigious panel of guest editors comprising Mary Lassaline, member of the Veterinary Ophthalmology Editorial board and Veterinary Ophthalmologist in the Department of Surgical and Radiological Sciences at UC-Davis School of Veterinary Medicine, California, David A. Wilkie, Editor

of Veterinary Ophthalmology and Professor at Veterinary Clinical Sciences Comparative Ophthalmology Ohio State University, Tim Mair, Editor of Equine Veterinary Education based at Bell Equine Veterinary Clinic, Kent and Celia M Marr, Editor of Equine Veterinary Journal, based at Rosssdales, Newmarket.

"The goal was to provide broad access to the most current information applicable to every stratum of the equine veterinary profession," said Mary Lassaline. "Subsequently, a salient feature is that many of the papers included are collaborations between veterinary ophthalmologists with a special interest in horses, equine practitioners with a special interest in ophthalmology, private practitioners and those in academia, and academicians from different institutions."

Subjects covered include seven papers on new approaches to the diagnosis and treatment of ulcerative and non-ulcerative keratitis in the horse. There are three articles on novel approaches to corneal surgery and a further three on corneal neoplasia. Six papers provide valuable data regarding long-term outcomes following surgical intervention for Equine Recurrent Uveitis (ERU), glaucoma, and cataracts. Finally, three articles present new information regarding retinal and orbital disease.

Professor Celia Marr, Editor of the Equine Veterinary Journal said: "The key purpose of the EVJ is to disseminate information to help the enhancement of specialist knowledge at every level of the

veterinary profession. By collating the most important and up-to-date ophthalmology research into one easy resource the new special issue does exactly that."

The ophthalmology special issue (which is free until the end of April 2016) is available online at: <http://bit.ly/1biORG0>

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## Is Ragwort poisoning really very common?



surveys. Furthermore, a justification or recommendation for relaxation in ragwort control would be a risky strategy as it is possible that the apparently low prevalence of ragwort toxicity in horses might be as a result of generally effective pasture management that if relaxed, might lead to an increase in toxicity cases. Further investigation may be warranted to explore further questions such as this.”

Read the full article at:

[http://www.aht.org.uk/skins/Default/pdfs/DEFRA\\_report4q\\_2014.pdf](http://www.aht.org.uk/skins/Default/pdfs/DEFRA_report4q_2014.pdf)

How common a problem is ragwort poisoning? Is it really as widespread as often thought? Writing in a recent DEFRA/AHT/BEVA Equine Quarterly Disease Surveillance Report, Professor Andy Durham considers some recent evidence.

His article aimed to help put ragwort toxicity in perspective.

In February 2014, he conducted an email survey among UK veterinary pathology services. The ten laboratories that responded reported that of 865 liver samples examined, 8.3% were found to have megalocytosis (a specific pathological change caused by pyrrolizidine alkaloids and thus the definitive indicator of ragwort poisoning). This was equivalent to 57 megalocytosis-positive samples per annum.

Secondly, he conducted a survey of vets who were members of the British Equine Veterinary Association. This revealed 403 cases of suspected ragwort poisoning in the previous year, of which 199 died or were euthanased. Of the 403 cases suspected to have ragwort poisoning, 122 were later confirmed as such.

Two other recent surveys were the Blue Cross/ National Equine Health Survey (NEHS) 2014, which covered

many aspects of equine health, and the British Horse Society survey which looked specifically at the perceived risk of ragwort poisoning.

Over 3000 horse owners responding to the National Equine Health Survey. Of those, 45% did not have ragwort on their property and a further 30% spent less than one week a year on ragwort control.

The survey conducted by the British Horse Society in July and August 2014 found that 84% (of 13963 respondents) had seen ragwort in horse fields during the previous week. Just over a thousand respondents were responsible for land management and 93% of those took preventative measures to control ragwort. Only 18% spent more than a week each year controlling the weed.

He concludes: “the overall impression from all 4 surveys is that ragwort is a very common weed but only a minority of horse owners spend significant time trying to control it. Despite this, ragwort toxicity is a rarely encountered problem in UK horses subject to veterinary care.”

“The main caveat of these conclusions regards demographic bias. It is possible that there is a more susceptible population of horses that has been excluded/ omitted from these

## Horse Health Tracker App

The Horse Health Tracker App is the latest initiative from Equine Guelph, the horse owner's Centre at the University of Guelph.

It allows owners to assess a horse's vital health data, body condition score and body weight with a few simple measurements.

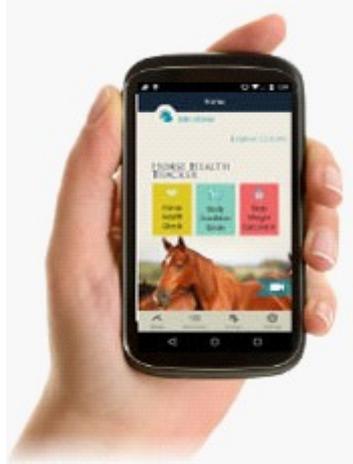
The standard version can follow up to two horses.

For a modest fee, an in-app upgrade, allows you to keep track of information such as heart rate, temperature and respiration for up to 50 horses. Special graphs plot this vital data over a 13-month period. Instructional videos are also included in the upgrade to show you how to properly perform the assessments. Appointment reminders sync with your smart phone calendar, making it easy to stay on top of your horse's health care regime.

The app accommodates multiple checks per day, making it a useful tool to monitor sick horses as well as healthy horses. Its built-in e-mail capability allows you to share data with your veterinarian.

"The ability to share pertinent information with your veterinarian is a wonderful feature," says equine practitioner, Dr. Laura Frost.

"The Horse Health Tracker makes it easy for the horse owner to systematically collect vital health data and provide this information



in real-time to a veterinarian. This app ensures that important pieces of the puzzle are not missed when communicating health concerns regarding a sick horse."

Equine Guelph point out : "Not only will this app benefit your horse healthcare program, your purchase will support Equine Guelph in its mission to 'Help Horses for Life' as proceeds will be invested back into welfare education programs."

The App is available for download at the App Store and Google Play.

For more details see:

<http://www.equineguelph.ca/news/index.php?content=440>

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Equine Science Update  
is published by  
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140a North Kelsey Road Caistor  
LN7 6SF UK

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Please see the website for details of current subscription rates.

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