

Winter Lecture Series

We will be holding a series of short interactive talks at the Barleymow Inn in Paulerspury this winter. We will be starting at 8pm, dates and titles are as follows:

16th November – Wound Management

7th December – The Colicking Horse

18th January – Managing the Older Horse

22nd February – Artificial Insemination of the Mare

Admission to these talks will be **FREE OF CHARGE!!** However, advanced booking is required – please phone on 01327 811007 to reserve your place on any one or all of these evening sessions.

Welcome Sinead



Introducing our new vet starting in October – Sinead Gleeson is from Co. Tipperary, Ireland and graduated from University College Dublin in 2009. As a child she showjumped, hunted and pony-clubbed with the Golden Vale PC. Whilst at college she developed an interest in racehorses and spent her summers working at studs in both Ireland and Kentucky. Sinead has a particular interest in equine lameness and sport/racehorse medicine. In her spare time Sinead enjoys following rugby (Munster!), Gaelic sports and horse racing.

Chondroprotection and Equine Joint Disease

Today's horse owners are faced with an increasing number of nutraceutical supplements to help with the management of joint problems. There are a variety of different ingredients, some of which are chondroprotectives and others which claim to have pain relieving benefits (e.g. Devil's Claw or MSM) rather than the ability to help the joint structure.

What is a chondroprotective?

A chondroprotective agent is described as "a basic cartilage building block necessary to help maintain joint fluid and assist cartilage formation within the joint".

Glucosamine hydrochloride and chondroitin sulphate are two proven chondroprotective agents that have been used in horses and have shown a benefit in relieving clinical signs associated with degenerative joint diseases and osteoarthritis.

Chondroprotectives can be beneficial in those individuals with existing problems, older horses with age related changes to the cartilage and also in those horses that are undergoing high levels of work such as show jumping, racing, polo, hunting and dressage.

Many horses with joint disorders are receiving pain-relieving non-steroidal anti-inflammatory drugs (NSAIDs). Support of this treatment with glucosamine and chondroitin may decrease the level of NSAIDs required as well as helping to protect the cartilage against further damage.

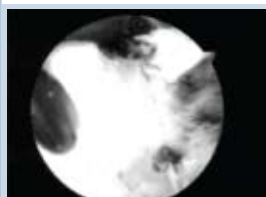
Glucosamine

Most research has focussed on glucosamine. It functions in two main ways. The first is to minimise the inflammation found within an injured joint. The second is to help maintenance of the cartilage and aid in repair and some degree of regeneration. Thus it is a pertinent supplement for both the convalescing horse as well as the performing horse and the ageing athlete or retiree. Common injuries or conditions that may be responsive to glucosamine are arthritis or degenerative joint disease, osteochondrosis, and soft tissue injuries such as tendon or ligament strains. Glucosamine is also a relevant therapy in any post-operative treatment after surgeries involving the joint such as arthroscopy for OCD lesions or bone chips.

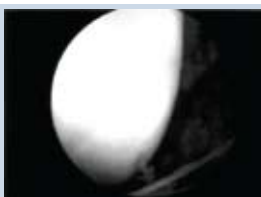
Label Claims and Purity – Essential for Maximum Benefit

A simple rule when selecting a joint supplement is to read the labels carefully, look for purity, high ingredient levels and a product that has been independently verified to meet stated purity and label claims (e.g. SYNEQUIN® or NEWMARKET JOINT SUPPLEMENT).

The level of the components within some joint supplements can vary greatly. Cheaper ingredients of low purity will obviously lead to a cheaper product on the shelf, but not the desired maximum benefit that would be obtained from a product of proven high levels and purity. This is because horses poorly absorb glucosamine and so low purity products don't actually reach therapeutic levels within the joint.

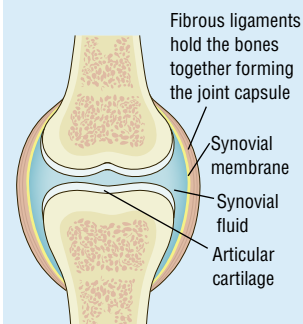


Arthroscopic view of a damaged joint

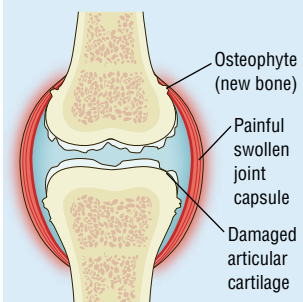


Arthroscopic view of a good joint

Joint Anatomy



Healthy synovial joint with smooth articular cartilage



Arthritic synovial joint with damaged articular cartilage

Tying-up

Tying-up has long been recognised as a cause of poor performance. Recent years have seen advances in diagnosis on a cellular level which have allowed this complex syndrome to be subdivided into different diseases. One of these is Polysaccharide storage myopathy (PSSM). This quarter we have a feature article by Dr. Richard Piercy from the Royal Veterinary College on the management of PSSM cases. Dr Piercy was a pioneer in the identification of this disease in British horses.

From an article by Dr Richard Piercy

Q. My horse has been diagnosed with PSSM...but how do I try to prevent another episode of tying-up?

Dr Richard Piercy
Senior Lecturer in Equine Medicine and Neurology
Comparative Neuromuscular Diseases Laboratory
Royal Veterinary College

Introduction

Researchers in the USA have recently discovered the genetic cause of polysaccharide storage myopathy (PSSM). It turns out that affected horses have a mutation in a gene that encodes an enzyme, known as glycogen synthase, that is responsible for storage of glycogen (which is a source of energy) in muscle. The mutation increases the storage of glycogen and with it, an abnormal polysaccharide, which cannot be properly broken down inside the cell when muscles contract. This abnormal polysaccharide can be seen in muscle cells after a biopsy is taken.

My laboratory has recently found the same mutation in many horses in the UK: the mutation is a common cause of tying up in horses and ponies in this country. The genetic test is highly accurate and relatively simple to perform, but dealing with a positive diagnosis requires time and perseverance.



Muscle biopsy

Abnormal polysaccharide (pink staining) in muscle fibres from a horse with the mutation that causes PSSM.

Diet

Horses diagnosed with PSSM require a combination of feed and exercise management. First of all, many horses with PSSM, especially ponies and native breeds that are not getting large amounts of exercise, do not need much in the way of additional calories from hard feeds – most do fine with hay and being turned out to grass. Probably these horses would be better if they are not kept on very lush pasture (as this is high in soluble carbohydrates). Similarly, very sweet, high quality hays are probably best avoided.

In horses that need additional calories because they are competing or being exercised often, it is considered better to supply the extra calories in the form of fat, rather than carbohydrate. Corn or vegetable oil (up to 0.5ml / kg body weight) can be added to chaff or pony nuts or alternatively several proprietary diets can be fed, such as Dodson and Horrell's ERS formula or Saracen's Releve / Equijewel. These commercial diets are often more palatable options. Take care only to feed to the nutritional requirements of the horse (they should not gain weight). It is probably a good idea to add a vitamin and mineral supplement (at recommended dose) too.

Exercise

Perhaps more important than the dietary change, is to ensure that the horse has regular and consistent exercise (7 days per week). Ideally, affected horses should be turned out for at least 12 hours per day. Immediately following an episode of tying up, many horses are sore, and they should not be exercised (but turned out) until they stop displaying signs of stiffness when being walked. At that time, exercise can be started again, but it should be very gradual, particularly initially. Often just 2 minutes of hand walking per day, increasing by 1-2 minutes each day is appropriate. When the horse can manage 20 minutes of hand walking, then lunged exercise (walk and trot) can start, but increase exercise gradually. When the horse can manage 20 minutes of trot on the lunge, ridden exercise can resume (again start gradually). If at any time the horse shows sign of unwillingness to move forwards, or stiffness or pain, then back down on the exercise or stop completely and resume at a lower level the next day.

Stress and management changes

Try to minimise the stress the horse encounters as best as possible, and when workloads decrease, reduce the amount of calories that are fed. If your horse requires time off, perhaps because of illness or injury or for another reason, remember that gentle exercise is appropriate when returning to work.

Conclusions

Although it can be alarming for owners to discover that their horse has a genetic problem that makes them more prone to tying up, remember that this mutation has been present in the worldwide horse population for thousands of years probably. Some horses with the underlying genetic problem may never go on to develop significant muscle disease and in those that do, careful management of exercise and diet, often means that the horse can be a useful, and indeed a highly successful athlete.

Points to remember: Due to the increasing popularity of the **Free Zone Visit scheme**, please remember to book well in advance of the date that you require. Please also be aware that whilst we will make every effort to accommodate your requirements for times, because we have to plan the most efficient route around the zone, this is not always possible.

Vaccination reminders are sent every month to owners of horses that are due to be vaccinated the following month or, in the case of 3rd vaccinations, within the next couple of months. We offer this service to try and make your lives a little easier, however PLEASE do not rely on this as your sole means of remembering! Whilst the computer system is good, it is by no means infallible and we would hate for you to miss a vaccination and have to re-start!