

# Equine osteoarthritis, what is it, what should I be looking for and what management options are available?

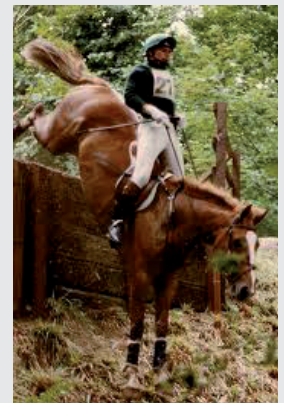
Vetoquinol advises you to consult your veterinary surgeon concerning any specific health questions about your horse. The information contained in this document is intended for educational purposes only.

Equine osteoarthritis (OA), also known as Degenerative Joint Disease or DJD, has been demonstrated to be responsible for up to 60% of lameness in performance and pleasure horses. A variety of reasons can be at the roots of its onset, often linked to trauma e.g. wear and tear and injury but also infection and poor conformation. A series of events is then set into motion a little bit like a row of dominos. Initially, the signs can be subtle at the onset but as it progresses and the deterioration of the articular cartilage becomes permanent the signs become more obvious, notably in terms of lameness and loss of joint mobility. The joints most frequently affected by osteoarthritis include those of the knee, fetlock, coffin and pastern (referred to as «ringbone») and hock (known as “bone spavin”). The spine (neck and back) is less common.

## Tail-tail signs that might be the beginning of osteoarthritis

Due to the subtle and often fluctuating signs in the early days of the problem that can often last without obvious progression for weeks and even months, do not hesitate to contact your veterinary surgeon from the outset. Below is a list of some early warning signs that may indicate your horse is developing osteoarthritis:

- Spending more time than usual lying down
- Difficulty getting up from a lying down position
- Lethargy compared to normal level of activity
- Behaviour and/or temperament changes
- Slow or stiff movements when beginning from cold or in cold damp weather
- Stiffness or lameness that works off with exercise
- Gait abnormalities or lameness during exercise
- Swollen joints that are warm to the touch
- Decreased appetite
- Unexplained muscle wastage



Many of the above signs are not specific to osteoarthritis and therefore once observed, your veterinary surgeon should be consulted in order to perform a complete examination before setting up an adapted treatment plan.

## Once the veterinary surgeon has been called what possible diagnostic tests will be employed?

An early diagnosis and corrective treatment is an important step if the progression of osteoarthritis is to be slowed or even prevented. Diagnosis begins by a series of questions to ensure a complete history before a full clinical examination is begun. During the examination, the veterinary surgeon observes the horse for soundness (with and without flexion tests) while run up in-hand, lunged and/or ridden. Nerve blocks may be helpful in further localising pain. Once a problem in a particular joint or region is identified, it may be examined further through radiographs (radiography), ultrasound, bone scan (nuclear scintigraphy), CT scan and/or MRI.

## Managing equine osteoarthritis

Rapid resolution early on is a critical part of the medical treatment of joint disease because of the principal role of joint inflammation (synovitis) in causing the subsequent breakdown of joint cartilage if allowed to persist unchecked. The treatment objectives for the joint are principally:

- (1) Return the joint to its normal healthy state as quickly as possible
- (2) Prevent the occurrence or reduce the severity of osteoarthritis.

As knowledge and information increases over time with regards the targets for therapeutic intervention, the range of treatment options has equally increased.

## Treatment by prescription medications

Osteoarthritis is usually treated with a combination of therapies, depending on the age and activity level of the horse and how severe the osteoarthritis is. Non-steroidal anti-inflammatories (NSAIDs) such as phenylbutazone (often referred to as bute) or other NSAID class medications make up the backbone of many protocols and administered to reduce pain and inflammation. Topically applied NSAIDs are also licensed in certain countries.

Injectable medications for osteoarthritis management can be administered via several different routes according to medication employed ranging from intramuscular (Polyglucosaminoglycan (PGAGs) to intravenous (Hyaluronic acid (HA) and commonly on a more localised basis via intra-articular injections (corticosteroids, PGAGs and HA). They can be used individually or in some cases in combination enabling a better response.



## Other commonly employed treatment options and newer biological options

Additional therapy may include icing, cold hosing, pressure wraps and extracorporeal shockwave therapy (ESWT). Newer biological based treatments have more recently made their appearance and are based on the harvesting from the horse's own blood the "good" interleukin receptor antagonist protein (IRAP) after white blood cell stimulation during the 24-hour incubation period before re-injecting them back into the horse's joint.

## Rehabilitation management

The appropriate combination of box rest, adapted exercise/training protocols and turnout must be established with the veterinary surgeon as a means to help reduce pain and prevent further joint damage, not to mention help your horse maintain a healthy weight.

## Dietary management

Often overlooked, weight control is an important component of any treatment for osteoarthritis. (Excess weight puts more pressure on the weight-bearing joints, particularly the knees and hips.) Obesity is not only a problem that concerns dogs and cats unfortunately.

## Corrective shoeing

A potential cause of many joint and muscle problems, corrective shoeing by an experienced and qualified farrier who works with your veterinary surgeon is an important part of osteoarthritis management.

## Oral supplements and osteoarthritis management

An increasing body of support and research is now available which shows certain oral supplements and ingredients to be safe, absorbed (bioavailable) and beneficial in supporting support joint health.

In many countries, the benchmark ingredients (rightly or wrongly) to date have been that of

**Glucosamine and Chondroitin Sulphate** - the most commonly employed ingredients.

**MSM**

**Cetyl myristoleate**

**ASU** (avocado unsaponifiables)

**Vitamin C**

**Manganese** and other minerals as co-factors for cartilage production

**Omega 3 fatty acids**

**Hydrolysed collagen/gelatin**

**Herbs** for pain and inflammation (e.g. Devil's claw, Rosehip, Stinging nettle)



## New ground breaking concepts in joint nutrition that leave the traditional standards behind them

Ingredients with a novel nutritional action are beginning to be identified and their interest for joint health being supported by trial work on horses. Such is the case of **undenatured (native) type II collagen (UCII)** via a natural mechanism known as "oral tolerisation" which results in the switching off of the process that is central to osteoarthritis progression and cartilage degeneration.

## Quality and security issues when choosing a joint health supplement

The old adage, "you get what you pay for" holds particularly true for joint health supplements and constitutes a major issue in terms of choice of oral supplement, not to mention economic impact when the owner has purchased a product of poor-quality that does not contain the type or amount of ingredients as listed on the manufacturers' labels.

Is this a real issue? Unfortunately yes, as presented by Professor Wayne McIlwraith at the 2006 AAEP conference where he presented a study evaluating 23 glucosamine containing oral joint health supplements of which only 14 products contained the amount of glucosamine listed on the manufacturer's product label. That means nearly 40% of the studied products did not contain the expected amount of glucosamine, including one product that did not contain any glucosamine at all.

Professor McIlwraith went on to say that the best way to get the most «bang for your buck,» in terms of supplementation, is to carefully select only quality supplements that are most likely to be therapeutically beneficial to your horse(s).

The «**ACCLAIM**» system described by McIlwraith at the 2008 AAEP conference is a seven-step process that helps consumers evaluate oral joint health supplement product labels with the goal of identifying quality products that are more likely to benefit the horse.

The letters stand for:

- A** : A name you recognize
- C** : Clinical experience (published studies on efficacy)
- C** : Contents
- L** : Label claims
- A** : Administration recommendations
- I** : Identification of batch and
- M** : Manufacturer information



## JOINT MOBILITY AND FUNCTION

For a lasting natural performance.

### Powder - Ingredients per 10 g scoop:

- UCII: 320 mg (Undenatured Type II Collagen 80 mg)
- Methylsulfonylmethane (MSM): 4000 mg
- Chelated manganese: 4.8 mg

### ▼ Nutritional value:

FLEXADIN UCII is an original complementary feeding stuff formulation based on a revolutionary concept, a patented\* undenatured (natural) type II collagen (UCII) in combination with MSM and Ipaligo Manganese.

UCII's difference lies in its patented extraction process that ensures the undenatured (natural) preservation of its natural triple helix structure as opposed to the hydrolysed collagens often employed. This natural form enables it to behave differently from other type II collagen ingredients once administered to the horse. Upon reaching the small intestine, UCII's novel interaction with the digestive tract is thought to explain its capacity to contribute to the continuing good health and mobility of the horse's joints. MSM is a naturally occurring sulphur compound and nutritional component of many foods. Bioavailable sulphur is an important component of the GAGs matrix. The readily assimilated chelated manganese plays a key role as a co-factor during healthy collagen synthesis.

### ▼ Usage:

FLEXADIN UCII is recommended for athletic horses requiring an optimal joint health and mobility.

### ▼ Recommended administration:

- Initial administration 1½ scoops (15 g) once daily for 12 weeks or until response observed
- Maintenance administration 1 scoop (10 g) once daily

### Pack size

- 600 g pot with measuring scoop
- 450 g pot with measuring scoop

UCII brand undenatured type II collagen is a registered trademark of InterHealth N.I

\* European Patent : EP 1 435 906 B1



**Vétoquinol**  
*Signe de Passion*