

# Baker & McVeigh Equine Hospital CAPE (PTY) LTD

Dr. J. McVeigh B.V.M.S M.R.C.V.S. - Principal  
Dr. A.G Cameron B.V.M.S M.R.C.V.S - Partner  
Dr. D. Timpson B.V.Sc M.R.C.V.S - Partner  
Dr. A. Clements B.V.Sc Cert.E.S (Orth) M.R.C.V.S - Partner  
Dr. E. Alsop B.V.Sc Cert.E.M (Intmed) M.R.C.V.S  
Dr. B. Gillespie B.V.Sc BSc



P.O Box 55290, Sunset Beach, 7435

Tel: +27 (21) 552 3450

Fax: +27 (21) 552 3225

Email: [cape@mcveigh.co.za](mailto:cape@mcveigh.co.za)

Website: [www.bakermcveigh.com](http://www.bakermcveigh.com)

DURBAN, SA

CAPE TOWN, SA

NEWMARKET, UK

YORKSHIRE, UK

CHANTILLY, FRANCE

## OSTEOARTHRITIS-NOT JUST A PAIN IN THE NECK

A sound horse is key to it being able to perform to its full ability. Most horse owners expect their horses to perform to some sort of level. Over 20 million people in the states suffer from OA. In a recent survey, osteoarthritis (OA) represented 60% of all lameness problems in horses. Osteoarthritis therefore is a common problem in horses, often requiring veterinary attention. There is a huge amount of research going on continually into the treatment and potential prevention of osteoarthritis. It can be a hugely debilitating disease but there are also many ways to try to manage these cases.

### What Is Osteoarthritis (OA)?

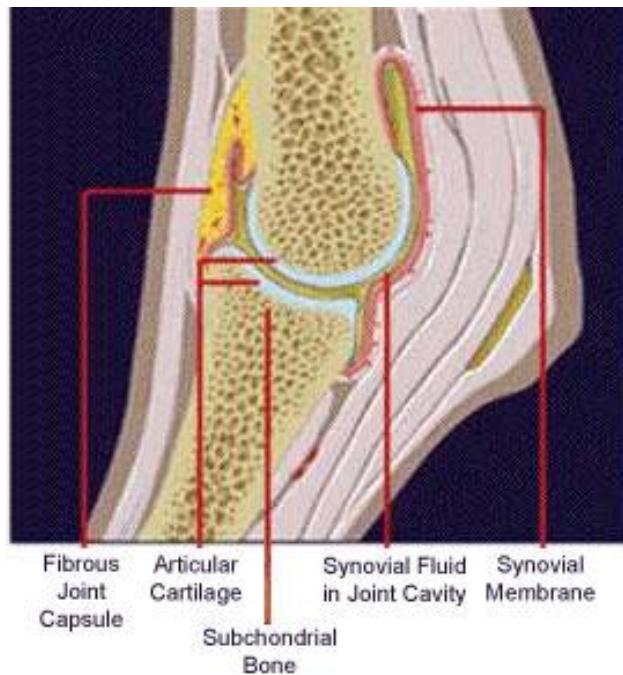
Osteoarthritis is a progressive degenerative, self perpetuating condition and there is no cure, however it can often be managed. Osteoarthritis (also known as 'arthritis' and 'degenerative joint disease') can be thought of as a group of disorders leading to cartilage erosion and inflammation along with damage to the surrounding bone and soft tissues associated with the affected joint. Once the articular cartilage in the joint is damaged, it has very limited ability to repair so the condition is irreversible. The articular cartilage is a unique type of cartilage called Hyaline cartilage. Once this is damaged it can only be replaced by Fibro cartilage which has very poor qualities. The body's attempts to heal itself are unsuccessful, leading to a cycle of 'pain-inflammation-further damage-more pain' and so on and so on. The articular cartilage has many important functions in the horses joint including:

Shock absorption

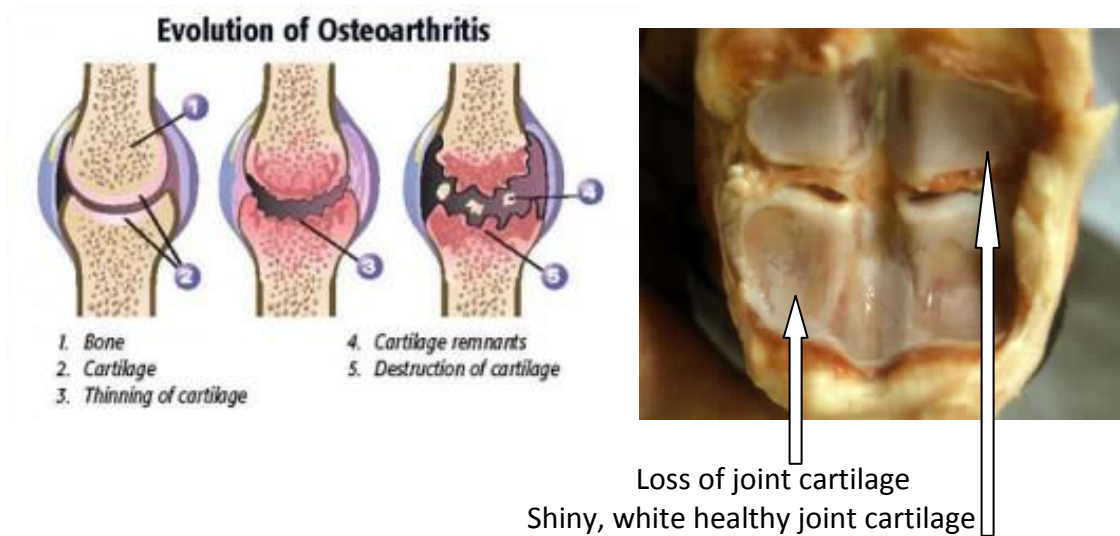
Load bearing

Protection of the bone plate underneath (subchondral bone)

Stress relief



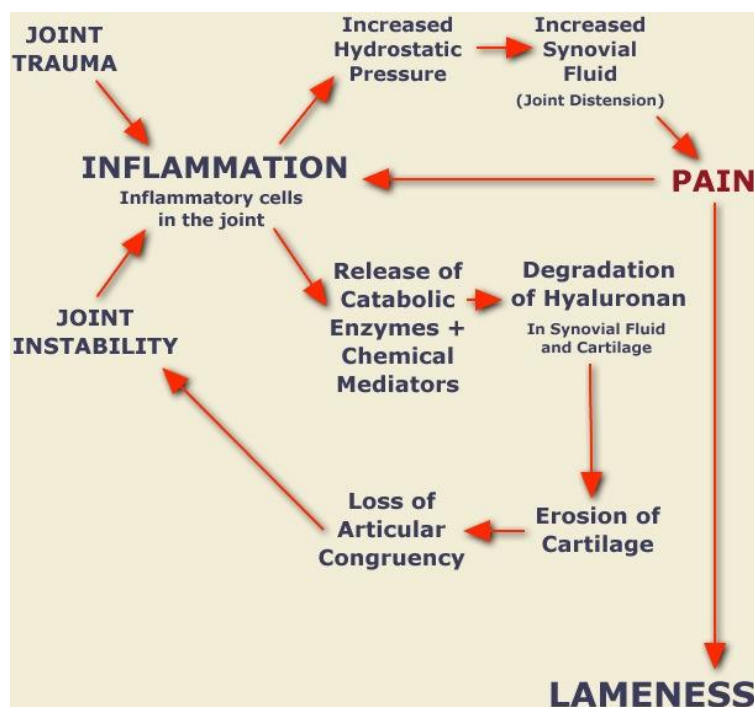
OA most commonly develops in high motion joints (fetlocks, hocks) but can occur anywhere in the body where there are joint articulations, including the neck, ribs and joints of the jaw (temporomandibular and temporohyoid joints). Horse's joints provide the skeleton with flexibility and allow walking, trotting, running, jumping and moving its neck and head. The primary factors limiting these activities in the horse are pain and lameness that accompany OA.



### What causes OA?

Any joint injury or insult can result in osteoarthritis. Most cases are due to wear and tear. Horses are large animals and put huge forces on their joints. Injuries to ligaments or bone (chip fractures) and inflammation resulting from infection are also causes.

Among the contributors to OA are synovitis (inflammation of the soft, pliable membrane lining a joint) and capsulitis (inflammation and thickening of the fibrous tissue enveloping the joint). Other contributors are bone fractures and injury to the bone just beneath the cartilage (subchondral bone). Damage to the subchondral bone not only contributes to degraded articular cartilage and the osteoarthritic process but is also the first stage in the development of fractures. Soft tissue injuries including disruption of an intraarticular ligament or a meniscus can also lead to OA.



Certain conditions/factors that can lead to the development of OA include:

Injury to the bone, cartilage or surrounding soft tissues

Joint infections

Poor conformation

OCD (Osteochondrosis Dessicans)

Wear and tear

Hereditary factors

Immune mediated disease (fairly rare)

### **What are the signs of OA?**

Signs of OA can include:

Lameness

Stiff gait

Joint inflammation and heat

Joint swelling

Pain on joint flexion

These are the main signs of OA. If OA is occurring in less common parts of the body then there will also be specific signs to these locations. For example OA of the neck may lead to neurological dysfunction plus forelimb lameness, failure to reach the ground to eat and bend the head from side to side. Jaw OA may result in biting problems and head shyness.

### **How will my vet diagnose OA?**

Most cases of osteoarthritis are diagnosed when the vet looks at your horse for a lameness assessment. Lameness evaluations can be very time consuming and are often best performed at the veterinary clinic. A lameness evaluation will involve a thorough clinical examination, nerve blocks and diagnostic imaging (see previous information sheets).



Pastern osteoarthritis



Fetlock OA

### **Once OA has been diagnosed what are the treatment options for my horse?**

Unfortunately, OA is an irreversible condition and it cannot be cured or halted. In many horses' careers, it is OA that ends their athletic careers. But OA can be managed and vast improvements can be made to the horse's soundness, athletic ability, performance and quality of life.

Treatment options include the following:

Decreased work load and rest

Intra articular medications with a variety of substances including corticosteroids, IRAP, alcohol, hyaluronic acid, pentosan polysulphate and PSGAG'S (see December info sheet)

Joint supplements (See January info sheet)

Anti inflammatories (phenylbutazone, 'bute', metacam, firocoxib, finadyne etc)

Arthroscopic surgery



Arthroscopic Surgery

Advances in treatment and further research are always going on and new techniques for treatment are constantly under development. For example hyaline cartilage transplants.

### **Can OA be prevented?**

Unfortunately in many cases, OA cannot be prevented or stopped but there are a few things that may help.

Shoeing- ensure good farriery and foot balance to prevent putting stress and strain on joints and their surrounding soft tissue structures.

Look for good, correct conformation when purchasing horses.

Consider pre sale vetting xrays when buying horses.

If breeding, seek nutritional advice to minimize your incidence of OCD.

Pick and chose the ground you work/compete your horse on.

Joint supplements, ice therapy, magnetic boots etc. All can do no harm but there is little scientific evidence that they make a big difference.

In the thoroughbred industry, poor racetrack surfaces have been implicated in joint injury as well as certain conformation problems. Training techniques for young horses also appear to be important in creating resilient cartilage which can hold up during the rigors of competition.

Early exercise, early diagnosis of problems and thorough evaluation of horses before they go into training have the potential for decreasing the amount of day-to-day and catastrophic injury. Earlier diagnosis is critical as the disease is too advanced when it can be diagnosed with x-rays. The new methods include novel imaging techniques, as well as fluid biomarkers. These are bone markers which can be measured in the blood. OA is a huge problem and concern in the equine industry and is an area where further research is required to continue to try to improve the lives of all horses ranging from our equine athletes to much loved pets.