

arthritis in animals



David Urch

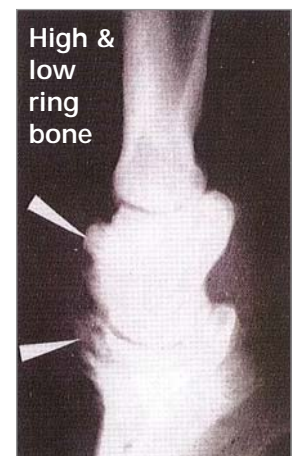
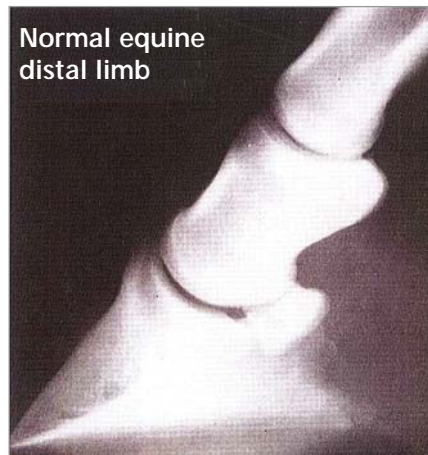
Advisory Board Member David Urch Bsc MA VetMB

At this time of year owners can become more aware of problems associated with their animals joints. With the onset of cold and damp weather along with its associated decrease in activity the winter is a time where we can see an increase in the symptoms of arthritis.

Osteoarthritis occurs in all species and today it is often referred to as degenerative joint disease. Rheumatoid arthritis is an immunological disease where antibodies are produced to the joint cartilages, this is a very rare condition of animals.

If an animal lives long enough it will usually develop arthritis in one or more joints due to natural wear and tear. The commonest cause for the early development of arthritis in younger animals is trauma. This can follow road traffic accidents or a simple twist or blow in the area of a joint. It can also follow frequent minor traumatic events, as occurs if there is poor conformation of a limb that puts undue forces on one side of a joint or if the animal repeatedly exercises on hard ground.

Arthritis simply refers to inflammation of a joint. During the early stages the joint cartilage loses glycosaminoglycan from its matrix, which decreases its elasticity and its resistance to compression. At the same time there is also a reduction of hyaluronic acid, which is required to bind the glycosaminoglycan together. The inflammation also leads to the release of enzymes from cartilage cells known as chondrocytes, which results in the breakdown of the matrix with associated inflammation of the synovial membrane. As the joint cartilage becomes damaged this exposes the hard subchondral bone which then develops micro fractures. The body reacts to these changes by remodelling the bone and in particular lays down new bone, which increases rigidity leading to increased cartilage breakdown. Changes in cartilage elasticity and the release of substances into the synovial cavity cause changes to the synovial fluid, which are further affected by the synovitis. Overall this results in the synovial fluid losing its lubricating properties.



Because arthritis leads to inflammation of a joint, symptoms will typically include, heat, pain, swelling and lameness. The usual way to confirm the diagnosis is to take an x-ray, in the horse this may have been preceded by nerve blocks.

A number of treatments are employed, some of the most important being, support, warmth, rest and in the case of the horse, corrective hoof trimming and farriery. For many years it has been traditional for veterinary surgeons to inject drugs like cortisone directly into these joints. This drug is very effective at reducing the inflammation, however repeated injections have been shown to damage the joint cartilage and speed up the development of arthritis.

Non-steroidal anti-inflammatory drugs (NSAID's) are frequently prescribed and may prove beneficial initially if the animal will rest. Unfortunately due to relief of pain they offer, animals will often over exercise resulting in further cartilage damage. Many of these drugs also carry unwanted side effects in particular in connection with the digestive system and major organs.

A number of natural products have been used for many years to supplement traditional veterinary medication and treatments. Some of the most beneficial are glucosamine, chondroitin, hyaluronic acid and methylsulphonylmethane (MSM). These are shown together with some of our topical products and other supplements in the table (top right).

treatments

- Support
- Farriery
- Rest
- Drugs - CX
 - NSAID
- Physiotherapy - Electromagnetism

• Natural Products

Topicals - MSM Gel, Heat Lotion

Orals - Forever Freedom (Glucosamine, Chondroitin, MSM), Forever Active HA (Hyaluronic Acid), Arctic-Sea Super Omega-3, Glycosaminoglycan, Cider Vinegar, Cod Liver Oil, Devil's Claw

Glucosamine - Often referred to as proteoglycans being made up of amino acids and sugars. Glucosamine is the building block for glycoaminoglycan, which has been administered by injecting into muscles or directly into the joints for many years.

Hyaluronic acid - Also made up of molecules of glucosamine and like glycosaminoglycan is routinely injected into arthritic joints.

Chondroitin - Formed from chains of glycosaminoglycan, which in turn is composed of glucosamine molecules.

MSM - An extract from pine trees which has a high sulphur content. All cells require sulphur to function correctly. One of its roles is to increase the permeability of cells to allow nutrients to enter and allow waste products to leave. This prevents the build up of pressure within the cell, which would otherwise lead to inflammation and pain.

The main problem with some of these joint protecting agents is that when they are given orally they are poorly absorbed from the digestive system and much is broken down in the liver. By adding large quantities of Aloe Vera, more is able to reach the joints.

Forever Freedom is an ideal product for animals at risk from or who are already suffering arthritis.

key contents

- High percentage of raw Aloe Vera Gel
- Glucosamine Sulphate - 1500mg/120mls
- Chondroitin Sulphate - 1200mg/120mls
- Methylsulphonylmethane - 750mg/120mls
- Orange juice concentrate
- Vitamin C
- Vitamin E

actions

- Relieves pain
- Reduces inflammation
- Improves synovial fluid
- Protects and regenerates articular cartilage
- Increases mobility

Studies have shown that combinations of these joint-protecting agents are more effective than the individual compounds alone.

The amounts required by the three main species are:

Cats 20mls per day



Dogs 60mls per day



Horses 250mls per day



Owners frequently notice an improvement in their animal's symptoms within 2 weeks of starting the **Freedom**, in some cases the response has been quicker. At this time the volume given can usually be halved. It is important to remember that all animals will show an individual response to products like **Freedom** and therefore the amount required to keep arthritis under control will show some variation.

Forever Active HA Hyaluronic Acid capsules. An injectable form of this preparation has been available for many years. It is probable that increased activity and benefits will be achieved if the capsules are taken with **Aloe Vera Gel**. The dog will probably be the most common species where owners will wish to try this new product. A medium size dog is likely to require one capsule twice daily.

Arctic-Sea Super Omega-3 capsules. Contain both fish and olive oils providing the Omega-3 fatty acid eicosapentaenoic acid and docohexaenoic acid. As well as helping with problems associated with the cardiovascular system they also help the composition of synovial fluid and reduce inflammation. Medium sized dogs would require one capsule twice daily with meals.

Whenever we are trying to keep our pets in peak condition it is important to remember to consider the whole picture ensuring that they are fed a well formulated diet which does not encourage them to put on weight and that they take sufficient exercise.