



## **Arthritis/Degenerative Joint Disease - Non-surgical Management**

### **Exactly what is Osteoarthritis?**

Osteoarthritis is a chronic degenerative disease that may affect any joint but is commonly found in a pet's hip, elbow, shoulder, stifle (knee), carpus (wrist), hock (ankle) or intervertebral joints (in the spine). It occurs when cartilage in the joint is damaged, either following a traumatic event or with wear and tear that increases in athletic animals, obese animals, or when the joint is congenitally abnormal.

Cartilage decreases joint stress by reducing impact on the ends of the bones in joints, like a gelatinous shock absorber. When cartilage is damaged, a cascade of inflammatory changes occurs, eventually leading to destruction of the cartilage and subsequent damage to the underlying bone. Cartilage contains no nerves – if your pet is showing any signs of pain, the damage and changes in underlying bone have already begun.

Signs of arthritis include:

- Reluctance to take walks of usual length
- Stiffness (that may disappear once the pet has 'warmed up')
- Difficulty climbing stairs, climbing in the car, on the bed or a sofa
- Difficulty rising from rest
- Difficulty/reluctance to jump
- Limping
- Abnormal gait
- Licking of a single joint
- Acting withdrawn, spending less time playing with family (which is often misunderstood as a sign of 'aging') This is the most common sign of arthritis in cats.
- Soreness when touched
- Rarely, aggression when touched or approached
- Urination or defecation outside the litterbox in cats

## What can I do about it?

Arthritis cannot be cured, but there are a lot of options for pain control that will help keep your pet comfortable and even slow the progression of arthritis. The best plan for arthritis is a **multi-modal** approach, meaning several different treatments used together give better results than any single therapy. There are three categories of therapy available.

### 1. Non-pharmaceutical

- a. Weight management. Getting your pet down to their recommended weight is the most important thing you can do for a variety of reasons, but it will also make arthritis therapy more effective and improve both the quality AND quantity of your pet's life. This is also the most difficult part of treatment. Try to train yourself to think that every extra tidbit you give could be causing physical pain in the long run.
- b. Exercise is important to help keep muscles strong, as weak muscles will make arthritis more difficult for your pet. We can discuss specific recommendations for your pet but *in general*, the best activities for an arthritic dog are walking (include up and down some gentle inclines) and swimming. Exercising a small amount daily is much better than a bunch of exercise on the weekend with an otherwise sedentary week. "Explosive" activities like running, jumping, pivoting to catch a ball or Frisbee are actually harder on the joints and should be limited or eliminated from the dogs' exercise program.
- c. Massage of the muscles around the affected joint may help relax stiff muscles and help joint range of motion. Start slowly, by simply petting the area, and work up to gently kneading the muscles with your fingertips in a small, circular motion. This can be done daily.
- d. Environmental control. Keep the house warm and dry and consider putting a sweater on your pet. Offer a soft, well-padded bed and place it near the heat register. Offer rugs to prevent slipping on hard floors. Add ramps to furniture, vehicles, and outdoors to minimize stair climbing. Elevate food and water bowls. For cats make sure they do not have to climb or jump to get to food, water, resting places, or litterboxes. Consider a litterbox with lower sides
- e. Acupuncture helps alleviate pain and can allow the use of fewer medications, especially in animals that are intolerant of medication side

effects or have other conditions that limit our use of pain medications. We offer acupuncture at our clinic.

- f. VSMT – veterinary spinal manipulation therapy is chiropractic adjustments done on animals. Arthritic changes in the spine alter the function of the joints between vertebrae. These joints are important for normal movement of the spine. Alterations in spinal joint motion can cause pain and limit normal nerve and muscle function. Chiropractic adjustments help to return proper spinal cord. Most patients receive a series of 2-6 adjustments depending on response. We offer VSMT at our clinic.
- g. Stem Cell therapy is the newest tool we have for arthritis treatment. Your pet is placed under anesthesia and a small amount of fat is surgically removed. The fat is sent to a company called Vet Stem that makes stem cells from your pet's fat cells. Your pet is placed under anesthesia a second time and the stem cells are injected into the affected joint(s). The goal is for some of the stem cells to turn into healthy cartilage cells. Results can be dramatic but tend to be temporary. For more information check out [www.vet-stem.com](http://www.vet-stem.com). We have two veterinarians trained to perform the procedure.

**2. Slow-acting/Nutraceutical** – These are also called supplements. They do not require a prescription and are often the first thing we recommend when a pet starts to show signs of arthritis. They can take weeks to take effect, but they support cartilage health by helping with repair and maintenance. They also have mild anti-inflammatory effects. They have not had to pass the rigorous testing required by the FDA for medications, so doses are not well established, and quality can vary widely. Response can vary also; some pets are much better on them and others do not show much difference. We recommend using a product that is tested and formulated especially for pets and are a combination of several supplements together including:

- a. Glucosamine
- b. Chondroitin sulfate
- c. Fatty acids – Omega 3 and 6 (DHA and EPA)
- d. MSM stands for methyl sulfonyl methane

There are also **prescription diets** that contain these supplements and do not require you to give anything extra. Arthritic pets have shown improved mobility in

as little as 3 weeks after starting these diets. These diets are only available from a veterinarian and are different from the myriad of commercially available diets that have joint supplements added.

**Polysulfated glycosaminoglycan (Adequan)** is a nutraceutical that is given by injection. A series of injections are given over several weeks, then on an as-needed basis. It helps prevent cartilage breakdown and support synthesis of new cartilage. It is the only supplement that has been tested and approved by the FDA for effectiveness in dogs but is also used in cats with good results.

**3. Fast acting/Pharmaceutical** – these are the most powerful pain relief we have available, but they also have the most potential for side effects and therefore require more monitoring.

**a. Non-steroidal anti-inflammatories (NSAIDs)** – act quickly to suppress inflammatory biochemicals in the body. Aspirin is an example of an NSAID but newer NSAIDs and those developed for pets are much safer long-term. They still have a potential for side effects, however, and must be used very cautiously in pets that have preexisting conditions, especially of the liver or kidneys. For this reason, baseline lab work prior to use and repeat lab work every 6 months while on these medications is the standard at our clinic. NSAIDs for pets include the following:

- Carprofen (Rimadyl)
- Meloxicam (Metacam)
- Firocoxib (Previcox)
- Etodolac (Etogesic)
- Tepoxalin (Zubrin)

**Important note:** Human pain medications including (but not limited to) Tylenol (acetaminophen) and ibuprofen are **not** safe for pets and should never be given. None of the above medications can be combined with one another or with steroids (see below)

**b. Pain medications that are not anti-inflammatory** – when NSAIDs alone are not enough to control pain, we have other medications we can add for additional pain relief.

- Tramadol is a narcotic pain reliever similar to codeine

- Gabapentin was originally an anti-seizure drug that has been found to help chronic pain.
- Amantadine is an antiviral drug with some pain-relieving effects.

**C. Corticosteroids** – This discussion would not be complete without a mention of the steroid class of drugs. These agents are strong anti-inflammatory drugs but with chronic use can lead to immune suppression, excessive weight gain, and impaired cartilage healing. These are considered a drug of last resort in most cases and are not safe to combine with NSAIDs. They are most often used when their potent anti-inflammatory effects would result in pain relief, such as intervertebral disc disease

**Please call and make an appointment if you would like us to help you with your multi-modal arthritis treatment. We want to help your pet be as comfortable as possible for as long as possible!**