



What is Degenerative Joint Disease (DJD)?

Arthritis, or degenerative joint disease (DJD), is a progressive condition in which the lining of one or more joint surfaces becomes inflamed and eventually wears away. DJD may be seen in younger pets due to congenital abnormalities like hip dysplasia, or in older pets due to abnormal wear or excessive use of joints. Once DJD has started, the condition cannot be cured or reversed. DJD is diagnosed through a combination of symptoms, physical exam findings, and radiographs (X-rays). The goal of DJD therapy is to slow progression of the disease and to maximize the comfort and mobility of affected joints. There are many options available for managing DJD.

- 1. Weight management:** Any extra weight your pet is carrying contributes to the stress placed on joints. Excess weight causes arthritis to progress more quickly. Fat is also known to produce pro-inflammatory mediators, meaning that heavier pets suffer from worse inflammation than pets who are lean. Maintaining a healthy weight is by far the best way to slow progression of DJD.
- 2. Controlled exercise:** Pets with DJD benefit from regular low-impact exercise, such as walking and swimming. High-impact activities, such as running and jumping, tend to worsen pain from DJD. Pets with DJD will often have flare-ups of their arthritis pain; during these “bad days,” we recommend restricting activity until the inflammation subsides.
- 3. Chondroprotectants:** These are supplements that help to protect normal joint cartilage. Glucosamine and chondroitin are both precursors of glycosaminoglycans (GAGs). GAGs are a major component of cartilage, so by giving patients supplemental “building blocks” for GAGs, we can help to reduce the rate of degeneration associated with arthritis. The most common types of supplements are oral tabs (such as Cosequin, Dasuquin, or Glycoflex).




MSM is a biologically active sulfur compound. Sulfur is another major component of joint cartilage, and MSM is thought to work synergistically with glucosamine/chondroitin to protect cartilage and provide pain relief. Many supplements combine glucosamine/chondroitin with MSM in a single product.

- 4. Fish oils (and other omega-3 fatty acids):** Fish oils are the best-researched nutraceuticals used for treatment of arthritis pain. They have well-known anti-inflammatory properties, and also help to slow degradation of cartilage. We recommend choosing a product that uses small cold-water fish such as sardines rather than large predatory fish such as salmon due to the potential for heavy metal contamination. Alternately, algae-sourced DHA supplements can be used.

Because nutraceuticals are not “drugs,” they are not regulated by the FDA. Quality of these products can vary widely. We recommend looking for products certified by the National Animal Supplement Council.

- 5. Non-steroidal anti-inflammatory drugs (NSAIDs):** The primary source of pain for pets with arthritis is inflammation, so the primary method of pain control involves use of anti-inflammatory drugs. Both corticosteroids (such as prednisone) and non-steroidal anti-inflammatory drugs (NSAIDs) inhibit the production of enzymes needed to cause inflammation. Due to the high number of side effects from corticosteroids, especially when used long-term, NSAIDs are the preferred anti-inflammatory for arthritis. Most dogs tolerate NSAIDs well, but we recommend regular blood tests to ensure your

About DJD/OA

-  There is no cure, but many options are available for management
-  Weight management is paramount in slowing down the disease
-  Physical rehabilitation can help improve strength and mobility



pet is not experiencing adverse kidney or liver effects from the medication. While some people give their dogs aspirin as an anti-inflammatory, aspirin requires high doses to be effective for arthritis pain. In dogs, these doses can be high enough to cause stomach ulcers and bleeding abnormalities. We do not recommend giving aspirin long-term for pain, and there are safer and more effective NSAIDs available for dogs. ***Never give your pet ibuprofen or Tylenol!***

- 6. Opioid-type pain medications:** These medications, such as tramadol and buprenorphine, have no anti-inflammatory effects but are still some of the most effective pain medications available for arthritis. We often use these medications in conjunction with an NSAID to provide a multi-modal approach to pain control. Because there are no NSAIDs currently labeled for long-term use in cats, buprenorphine is our primary pain control option for feline arthritic patients.
- 7. Gabapentin (Neurontin):** This is a medicine specifically helpful for chronic and neuropathic (nerve-based) pain. When used in conjunction with an NSAID, we can often decrease the dose of NSAID needed to provide pain relief.
- 8. Acupuncture and chiropractic:** These are two helpful adjunctive therapies for treatment of arthritis pain. Acupuncture is the practice of inserting thin needles at specific points of the body to impact nerve pathways (in a Western perspective) or the flow of energy or Qi (in an Eastern perspective). Pets with arthritis experience chronic pain, and regular acupuncture can help to alter the chronic pain pathways that affect mobility and quality of life. Acupuncture often allows us to reduce the amount or frequency of pain medications needed to keep patients comfortable.

Chiropractic medicine involves the diagnosis and treatment of neuromuscular and musculoskeletal abnormalities. Pets with arthritis pain often develop compensatory changes in their bodies as they shift weight off of the painful limb(s). This compensation leads to muscle tension and pain, as well as imbalances in gait and increased strain on other joints. While chiropractic therapy cannot fix an arthritic joint, it can help to reduce pain associated with compensatory changes.

- 9. Laser therapy:** Therapeutic laser is a surgery-free, drug-free method of reducing inflammation and promoting tissue healing. We have found laser therapy very helpful in reducing the need for pain medications, and have seen significant improvement in mobility when used for treatment of arthritis.
- 10. Physical rehabilitation:** There are several veterinarians in the Twin Cities who specialize in physical rehabilitation for dogs and cats. Dr. Julia Tomlinson at Twin Cities Animal Rehabilitation (<http://www.tcrehab.com/>) and the University of Minnesota Veterinary Medical Center (<http://www.cvm.umn.edu/vmc/>) both offer underwater treadmill therapy, laser therapy, and other options to help strengthen muscles and reduce strain on painful joints.

There are many options available to improve the comfort and mobility of pets with arthritis. Please do not hesitate to call if you have any questions about arthritis management for your pet.