

Arthritis is a progressive condition in which there is gradual deterioration of the cartilage lining the joints resulting in inflammation, swelling and pain. It is characterized by loss of joint cartilage, thickening of the joint capsule and new bone formation around the joint leading to limb dysfunction. There are different modalities and medications available to manage arthritis. Ultimately, the best approach is a multimodal approach.

- Adequan: Is a monthly (after a loading dose) injectable disease modifying drug that helps provide lubrication and building blocks to the joints. It also helps reduce inflammation in the joints. It's given subcutaneously (over the counter use) or intramuscularly.
- Omega 3 Fatty Acids: They are a natural method of decreasing pain and inflammation associated with arthritis. There are several studies documenting its benefits.
- Glucosamine and Chondroitin: When purchasing a supplement make sure it has the seal from the National Animal Supplement Council (NASC). Is worth mentioning that there is not a lot of scientific data backing its use for arthritis.
- Massage: Massage therapy can suppress pain via the gate control center in which the dorsal root nociceptors are inhibited. It also promotes analgesia by the release of oxytocin, endogenous opioids, and endocannabinoids.
- Therapeutic Laser: Laser uses light energy to decrease inflammation and pain. It also promotes healing.
- Therapeutic Exercises: This is important to maintain/improve strength, range of motion and flexibility. I also feel that it helps with cognition as it provides mental stimulation.
- NSAIDs: The most commonly NSAIDs used in dogs are carprofen, meloxicam and Galliprant. Depending on your dog's discomfort level this may be recommended and is common to recommend blood tests during the use of these medications. As with any medication side effects can occur and the goal with a multimodal approach is to reduce the amount of a particular drug such as NSAID that is used.
- Librela: This is a monoclonal antibody that neutralizes NGF (Nerve Growth Factor) reducing pain. Is a monthly subcutaneous injection. Side effects include pain at the injection site, gastrointestinal upset and dermatological problems. It is contraindicated with neurological conditions. Concurrent NSAID use is controversial as it has only been study short term on dogs.
- Gabapentin: This drug is often prescribed in addition to NSAIDs for additional pain control and sometimes to help with anxiety. It's relatively safe and its main side effect is drowsiness.
- Intra articular injections: There are many products available, some of which may be available from your primary veterinarian and others requiring referral. The most common are steroids, Protein Rich Plasma, Stem Cells (collected from same dog) and Hyaluronic Acid. Synovetin is a radio-isotope treatment available in specialty centers only.
- Amantadine: Helps with neuropathic pain (peripheral) and can be a helpful addition to NSAIDs.
- Other over the counter protocols: Recently I've seen good response with low dose subcutaneous ketamine protocol.

This list includes the most common treatments available for managing arthritis. I'm a strong believer in using an individualized plan for each dog. Most plans will include massage, therapeutic laser, therapeutic exercise (professional or at home), omega oils and Adequan. Depending on severity medications and other modalities may be recommended. Pain control is necessary to achieve a good

quality of life and a successful rehabilitation treatment. I'm happy to answer any questions you may have.