



Arthritis in Dogs and Cats: What Can be Done?

Arthritis, also known as osteoarthritis (OA) or degenerative joint disease (DJD), is the **NUMBER ONE** cause of chronic pain in dogs. And unfortunately, chronic pain is one of the main reasons that pet owners will make the heartbreaking decision to let their baby go. Other forms of arthritis can develop for other reasons in dogs and cats, but this article will focus specifically on the degenerative form of the disease.

Arthritis is a degenerative, progressive, and irreversible condition of the joints. It is characterized by the progressive loss of joint cartilage, bony spurs/growths, and the thickening and scarring of connective tissue around the joint, usually as a result of injury.

Approximately 25 percent of dogs are diagnosed with arthritis in their life time, and as many as 60 percent of dogs have radiographic evidence of it.

Degenerative joint disorders are probably as common in cats as in dogs but are less likely to be associated with obvious clinical signs, such as lameness. In one study, 90 percent of cats over 12 years of age had radiographic signs of osteoarthritis.

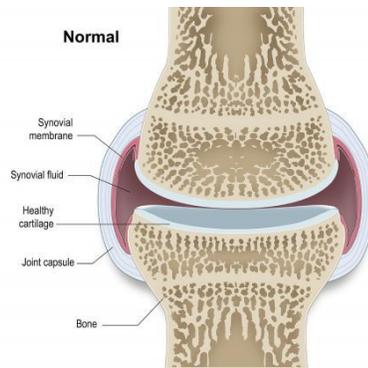
Arthritis is classified as primary or secondary. Primary arthritis is associated with aging, due to years of wear and tear on the joints. Secondary arthritis is the result of an external event or force that once damaged the joint cartilage. Some common examples of causes of secondary arthritis include hip dysplasia, CCL rupture, joint incongruity, elbow dysplasia, Osteochondrosis (a cartilage flap; most common in the shoulder and elbow joints) and trauma.

Arthritis can affect any age, sex, and breed of dog and cat. Most predispositions to it relate to underlying causes, such as elbow dysplasia, hip dysplasia, osteochondrosis, and so forth.

Diagnosing and treating arthritis from the earliest stages is one of the best ways we can keep our pets active, happy, and comfortable for as long as possible. Unfortunately, arthritis can be challenging to diagnose early on, and the signs that our pets are uncomfortable can be subtle if we don't know what to look for.

While arthritis isn't (yet!) curable, there is **SO MUCH** you can do to help your pet to live a happy, active, healthy life. By taking steps before your pet develops chronic pain, you can help them have a much better quality of life for years to come.

What is arthritis?



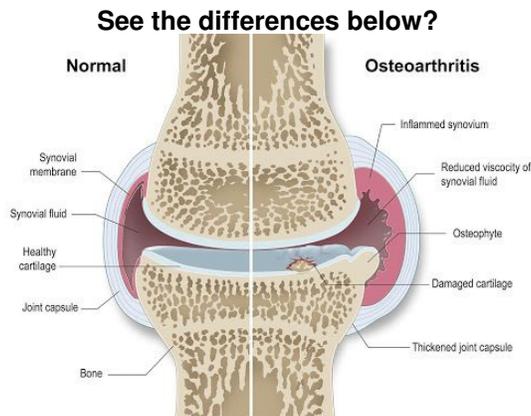
A healthy joint without arthritis

A joint is where two (or sometimes three or more) bones meet in the body; joints allow movement of the body in all of the ways we normally expect.

Arthritis, in the simplest terms, is inflammation of the joint with secondary changes that lead to pain and reduced joint movement.

Cartilage lines the end of the bone at the joint, and joint fluid fills the small space between the joints. In a normal joint, cartilage is smooth and slippery and allows the two bones to move back and forth without friction. Normal joint fluid is sticky and provides lubrication to the joint.

With arthritis, the cartilage gets thinner and starts to break down. This is what leads to a vicious cycle of inflammation, joint swelling, thickening of tissue around the joint, further wearing away of cartilage, and ultimately stiffness, muscle atrophy, and pain.



Comparing a healthy joint to one that has arthritis

How will my veterinarian diagnose arthritis in my dog?

Diagnosis is based on what is found on the physical examination, diagnostic imaging, joint taps (when indicated), cytology, force plate gait analysis (if available), therapeutic drug trials, and other tests.

Physical Examination Findings in Dogs

Lameness is the most common sign. It may happen once in a while (episodic) progressive (gets worse over time), or be persistent. Stiffness is common after periods of rest. Stiffness and lameness may decrease when the dog warms up a bit with some activity. Lameness often gets worse after periods of overexertion. Pain, swelling, and decreased range of motion may be seen. Thickened joints, excess fluid in the joint space, and muscle weakening are likely to occur.

Physical Examination Findings in Cats

As opposed to the visible lameness seen commonly in dogs, many cats simply become less active, may hide, or develop behavioral changes, such as irritability, decreased grooming, or difficulty getting into position in the litter box. Cats also may have joint swelling/thickening, too much fluid in the joint space, and decreased range of motion. There may or may not be pain when the cat's affected joint is moved by you or your veterinarian.

Diagnostic Imaging and Joint Taps

The most common way to diagnose arthritis is with an x-ray (also called radiograph). X-rays indicate joint swelling or changes to the bone, such as thickening or bone spurs.

Depending on your pet, sedation might be needed to get a clear x-ray and it may be recommended to submit the images to a board-certified radiologist for a second opinion on more challenging cases.

However, x-rays do not show cartilage. The only way to check the condition of your pet's cartilage is through surgery, either by inserting a small camera into the joint (arthroscopy) or by surgically opening the joint (arthrotomy).

These procedures require full anesthesia and may be both diagnostic and therapeutic, depending on the procedure performed.

To determine the underlying cause of arthritis, pain or lameness, your veterinarian might recommend doing a CT scan or an MRI. This better allows your veterinarian to assess the bone and surrounding tissues.

CT scans are usually recommended for issues with the elbow, tarsus (hock), and carpus (wrist), and MRIs are used more often for issues with the shoulders, stifles (knees) and back. Full anesthesia and referral to a specialist are required for arthroscopy, CT, and MRI.

If your pet has significant joint swelling, your veterinarian might recommend a joint tap to assess the joint fluid. This is usually recommended if your veterinarian suspects your pet might have an infection or an autoimmune condition. Currently, joint taps are not routinely performed at West Orange Veterinary Hospital and referral to a specialist would be recommended if this procedure was needed.

Kinetic Tests

Force plate gait analysis in dogs can help find where the lameness is within the joint. It can also show the severity of lameness, both before and after therapy. A force plate is mounted to the floor, and the dog walks over it. Measurements are taken to see which areas use the least force (more affected) and vice versa. The gait analysis hasn't been used as often in cats.

Currently, West Orange Veterinary Hospital does not have force plate analysis capabilities and referral would be recommended if this was needed.

Therapeutic Drug Trial

In some cases, a therapeutic trial of non-steroidal anti-inflammatory drugs (NSAIDs) may help confirm the diagnosis if the lameness is less noticeable after taking them. It is important to note that these medications can provide relief from a number of conditions and are not specific to just osteoarthritis. This class of medications must also be used with caution in cats and long-term blood work monitoring is highly recommended with chronic use in both dogs and cats.

Treatment, Management, and Prevention

Unfortunately, right now arthritis is an incurable disease in both animals and people. But there's hope! There are **many** effective treatments that will help you and your veterinarian manage your pet's arthritis for a long time and there are both surgical and non-surgical treatments available that you should discuss with

your veterinarian.

Regardless of the underlying cause, the goals are to alleviate your pet's discomfort, to minimize further degenerative changes to the joint, and to restore the joint's functionality. Multiple types of treatment are usually necessary to relieve pain, stiffness, and discomfort and we treat arthritis with what is called a "Multimodal Approach."

A typical long-term treatment plan for arthritis will include recommendations from four main categories:

1. **NUTRITIONAL MANAGEMENT :**

The single **MOST IMPORTANT** thing you can do for your pet's overall health, and to reduce pain from arthritis, is to help them maintain healthy body weight and ideal body composition. Being overweight or obese increases your pet's risks for so many serious health conditions, including arthritis. If your pet has arthritis, losing weight has been shown in countless studies to help reduce pain and lameness – **even without adding in pain medication or exercise!**

IF YOUR PET IS OVERWEIGHT, WE WILL DEVELOP A WEIGHT LOSS PROGRAM SPECIFIC TO YOUR PET'S GOALS, HOWEVER, ADDITIONAL INFORMATION ON THE ROLE OF NUTRITION AND WEIGHT LOSS FOR ARTHRITIS CAN BE FOUND HERE:

<https://caninearthritis.org/articles/nutrition/>

Joint supplements known as chondroprotective agents will help support the cartilage and will have some anti-inflammatory effects and these agents will slow the breakdown of cartilage. Some agents also increase joint fluid secretion and thus decrease inflammation. It is important to note that these products work on healthy, existing cartilage and therefore are most beneficial when started early on in the course of arthritis and they are continued for the life of your pet unless otherwise directed by your veterinarian.

Often times a prescription diet may be recommended that will help with safe weight loss as well containing high levels of joint supplements and omega fatty acids to help reduce inflammation. Other times the normal diet can be continued but may be modified in how much is fed and additional joint supplements may be recommended to be added to the diet. Some studies have found that dietary supplementation with fish oil omega-3 fatty acids can improve the clinical signs of arthritis in dogs, and may allow the NSAID dose to be reduced as well as providing numerous other health benefits.

Dosing recommendations and types of glucosamine/chondroitin and omega fatty acid products to use in animals can be very different from human recommendations. Here at WOVH we commonly recommend Dasuquin Advanced for a glucosamine/chondroitin supplementation and Nordic Naturals for omega fatty acid supplementation.

PLEASE CONSULT WITH YOUR VETERINARIAN REGARDING PROPER USE OF OMEGA FATTY ACIDS BEFORE ADDING THESE TO YOUR PET'S TREATMENT PLAN.

MORE INFORMATION ON THE PRODUCTS WE CARRY CAN BE FOUND HERE:

<https://www.dasuquin.com/en/dasuquin-advanced-soft-chews/>

<https://www.nordicnaturals.com/consumers/omega-3-pet>

2. **REHABILITATION:**

Historically it was thought that dogs with arthritis should limit their activity, and "exercise restriction" was prescribed. It turns out this recommendation is incorrect and if strictly followed, would contribute to your dog gaining weight, having stiff joints, losing muscle, and experiencing a decline in their functional abilities.

When people have arthritis of the knees and hips, exercises including progressive resistance training, quadriceps strengthening, aquatic exercise, land-based exercise such as walking, and aerobics have all been found to decrease pain and help with weight loss, which also helps to reduce joint pain. In fact, the

benefit of walking was shown to be similar to that of NSAIDs!

The American College of Rheumatology recommends aerobic exercise, muscle strengthening and preservation of joint mobility as key components of managing arthritis naturally. These recommendations are also true for dogs with arthritis!

The best recommendation for dogs with arthritis is “exercise modification.” This means dogs SHOULD exercise, in fact, they should ideally do something every single day rather than be weekend warriors and ideally they should be going for walks on **most** days, rather than doing one big activity at the end of the week. The type of exercise the dog is participating in is important. This is where “low-impact” and “controlled” come in and it is of the utmost importance to only work within your pet's tolerance level, so learning how to spot signs of fatigue or injury are important.

Control is key when it comes to exercise and arthritis. Playing at the dog park would be an example of uncontrolled exercise! When dogs play at the dog park, they are often running, jumping, twisting and turning quickly and placing abnormal forces on their joints. If they have abnormal joints, that is, developmental orthopedic disease or arthritis, these abnormal forces on their joints can be significant and often results in lameness.

However, some dogs live for the dog park, to chase balls, or run in the snow. To take away their favorite form of activity may decrease their quality of life, even if it is the best medical recommendation for their arthritis.

Adding physical rehabilitation to your pet's treatment plan is a very effective way to keep them moving more comfortably for longer periods of time as well as providing mental stimulation and enrichment for our older pets. Just as with human physical therapy, animal rehabilitation involves using a combination of therapeutic exercise, manual therapies (massage, etc), and modalities (cold laser, NMES, etc) to provide your pet with relief while building strength and improving flexibility and range of motion. Physical rehabilitation provides a detailed treatment plan tailored to your pet that addresses all the categories of management discussed in this hand out as well as providing instruction for at home therapies.

Dr. Stephanie Badge Kindred is certified in canine rehabilitation and offers mobility consultations to address your pet's condition and needs whether they are recovering from a surgical procedure or dealing with chronic issues.

She currently offers therapeutic exercise, cold laser therapy, NMES or TENS treatments and manual therapies. We are proud to announce that underwater treadmill services will be offered at our new Hamlin location as well!

Please visit our website at www.wovh.com for more information about our physical rehabilitation services and how they can help your pet

If you are interested in scheduling a mobility consultation, or just want to discuss if rehab is right for you and your pet, please call our office and ask to speak with our rehab client coordinator and rehab technician, Caitlin, for further information!

3. LIFESTYLE MODIFICATIONS:

One of the biggest myths about arthritis is that you should restrict your pet's activity. While rest may be indicated in times of acute injury, more often than not, regular, low-impact exercise is one of the best things you can do for your best friend long-term.

When they are getting regular walks and working on therapeutic exercises, animals are strengthening their muscles and keeping their joints from getting too stiff. Regular exercise also helps significantly with any weight loss program and maintaining a healthy weight and lean body condition are the most important things you can do to manage your pet's arthritis or delay the onset of symptoms.

In summary, the best medical recommendation for dogs with arthritis is that they should exercise regularly, ideally 30-60 minutes every day, and not engage in high-impact activities such as running, jumping and rough play. But, you do have to factor in your dog's quality of life as well. For example, if you have a puppy with a developmental orthopedic disease, such as hip or elbow dysplasia, they still need to socialize with other dogs and people in order for them to develop appropriate social skills.

Activities NOT recommended for dogs with arthritis

- Going for a jog/ run
- Flyball
- Agility
- Frisbee (Disc dog) or jumping up to catch a ball

There are numerous other canine sports that involve varying degrees of jumping, running and explosive activity. In general, these sports would put increased force on the joints of dogs and we do not typically recommend them.

Activities that are GOOD for dogs with arthritis:

- Leash walks, ideally on varying terrain such as trails
- Swimming (though be careful with entry and exit from the water, especially if there are rocks or uneven terrain!)
- Therapeutic exercise and underwater treadmill therapy
- Noseworks/ scent detection
- Going on outings to the store/ coffee shop, etc.
- Musical canine freestyle (dancing with your dog... YouTube it...)

Other lifestyle recommendations are just as important as regular low impact exercise. Since our pets typically spend most of their time in their home environment it is crucial to make this space as safe and comfortable for your pet as possible. While redesigning our homes to suit our dogs' needs isn't possible for most of us, you can make a number of simple modifications that will help (and won't break the bank!).

Slippery floors can be a dog's worst nightmare and a frequent cause of injury. Countless products exist that are marketed to help your pet improve their traction on slippery surfaces. In general, products such as booties, "Toe Grips", paw pad friction stickers or paint on products are very "dog-dependent" and their success is limited to what your pet will tolerate on their feet. We can help give you guidance to some of the products we have the most success with, but be prepared for a trial and error process with these products. Since the paw and digit anatomy can differ from dog to dog, as can their sensitivity to things on their feet, it often takes time to find a product that works best for your dog.

In general, the most effective way to prevent slipping on floors is to provide ample non-slip surfaces throughout the house, paying close attention to high traffic areas (front and back doors), feeding areas, near their bedding, and corners/turns. Rubber bottomed non-slip carpet runners, yoga mats and gym floor tiles are simple and affordable solutions to help your pet navigate their home more easily.

Regular grooming to address excessive hair on the foot pads and long nails will also make it easier for your pet to get around the house.

Using raised food and water dishes on a non-slip surface that are raised to approximately the level of the shoulder joint will help limit any stress or strain from having to bend down to access their food.

Providing a low profile orthopedic memory foam bed is also recommended and remember to make sure there is a non-slip surface near the bed so they can get on and off it more easily. PEMF beds are also available.

These are more expensive but they provide additional pain control benefits for your pet and can be ordered here: <https://respondsystems.com/pemf/>

For PEMF technology in forms other than a bed you can check out the Assisi Loop: www.assisianimalhealth.com

Stairs aren't always a bad thing for dogs with arthritis. In fact, walking UP stairs can be a great way to help improve active range of motion, muscle strength, and proprioception (the awareness of the position and movement of the body).

It's walking downstairs that can be more problematic, particularly for dogs with elbow and wrist (carpal) arthritis. Walking downstairs increases the force on the front limbs, as it takes a lot of control to go down slowly (which will likely be your dog's instinct!). **The primary concern with stairs is when the steps are slick, narrow, steep, or circular (or worse, all of the above!).**

If your dog has to navigate stairs regularly at home, you can install carpeting or non-slip stair treads to provide more traction. You might find that your dog needs help walking down, and using a harness can help support them and make them feel more secure.

Please do not ever let your pet jump into and out of your vehicle. Assisting them in and out by gently picking them up (for small dogs) or training them to use a ramp (for large dogs) will help prevent injury and make traveling a more comfortable experience for your pet.

As your pet's condition progresses over time they may need additional support with special slings, orthotics, or other assisted devices to help keep them mobile. We can provide specific recommendations for products based on your pet's condition.

For cats, making sure they can easily access their litter box by keeping it downstairs and easy to find as well as using large, shallow, uncovered boxes is typically preferred by most arthritic cats. Providing numerous boxes for lying in rather than tall cat towers is another easy at home solution and always make sure they can easily get to their food and water dishes.

ADDITIONAL INFORMATION ON HOME MODIFICATIONS AND LINKS FOR SPECIFIC PRODUCTS CAN BE FOUND HERE: <https://caninearthritis.org/articles/lifestyle-management/>

4. PAIN MANAGEMENT:

This includes options such as oral medications (anti-inflammatories/NSAIDs, muscle relaxers, and pain medications), Adequan, joint injections (steroids, HA, stem cells, platelet-rich plasma), acupuncture, or surgical intervention.

NSAIDs are an important component of arthritis therapy in dogs and some cats. Side effects that you should be aware of include stomach upset, elevated liver enzymes, and potential worsening of chronic kidney disease. Few NSAIDs are licensed for use in cats; your veterinarian will advise you about what NSAID options are available for your cat.

MORE INFORMATION ON THE ROLE OF NSAIDS FOR ARTHRITIS CAN BE FOUND HERE: <https://caninearthritis.org/article/nsaids-pain-management/>

Alternative, or adjunctive medications are often needed for increased comfort for dogs and cats suffering from arthritis or when lower doses of NSAIDs are needed. Numerous options exist and their use should be discussed with your veterinarian if you feel your pet requires more pain control.

PLEASE DO NOT ADMINISTER ANY MEDICATIONS WITHOUT THE DIRECTION OF YOUR VETERINARIAN.

MORE INFORMATION ON TYPES OF ADDITIONAL PAIN MEDICATIONS OFTEN PRESCRIBED CAN BE FOUND HERE:

<https://caninearthritis.org/article/what-are-some-other-oral-pain-medications-that-will-help-my-dog/>

Although the injectable PSGAGs such as Adequan are more expensive, they provide a faster and longer-lasting response than the oral forms. Adequan is an injection that is given either under the skin or into a muscle and these injections can either be given at our clinic or we can teach you how to perform the injection at home. This is typically a simple and well-tolerated procedure that most owners become very comfortable with. Adequan is dosed based on body weight and so it is often more expensive for our larger patients compared to smaller dogs and cats. Your veterinarian will determine the frequency that the injections are needed based on your pet's condition.

MORE INFORMATION ON ADEQUAN CAN BE FOUND HERE:

<https://caninearthritis.org/article/what-is-adequan-and-how-does-it-help-with-arthritis/>

AND HERE: <https://www.adequan.com/>

Currently, WOVH does not offer joint injections or acupuncture and we will happily provide you with referrals for these services if they are recommended for your pet's management. We hope to be able to offer these services in the future!

IF YOU ARE INTERESTED IN LEARNING MORE ABOUT THE ROLE OF ACUPUNCTURE FOR ARTHRITIS YOU CAN READ MORE HERE: <https://caninearthritis.org/article/acupuncture-pain-relief/>

LOCAL VETERINARY ACUPUNCTURISTS CAN BE FOUND HERE: www.tcvn.com

MORE INFORMATION ON JOINT INJECTIONS CAN BE FOUND HERE:

<https://caninearthritis.org/article/how-can-joint-injections-help-my-dogs-arthritis/>

Your veterinarian may consider surgical options for pain control if your pet's response to medical treatment is low. In addition, your veterinarian may suggest surgery for certain underlying causes of arthritis, such as cranial cruciate ligament rupture, hip or elbow dysplasia, osteochondritis dissecans, joint incongruity, intra-articular fractures, and joint instability. Reconstructive procedures can eliminate joint instability and correct the anatomic defects.

SPECIFIC SURGICAL RECOMMENDATIONS ARE GIVEN BASED ON EACH CASE PRESENTATION, HOWEVER, SOME HELPFUL INFORMATION ON WHEN SURGERY MAY BE RECOMMENDED FOR YOUR PET CAN BE FOUND HERE: <https://caninearthritis.org/article/can-surgery-help-dog/>

What about CBD?

Not all cannabinoids are suitable for pets. For example, THC is toxic to dogs and using recreational products for your pet is NEVER recommended. Many products marketed for animal use are derived from hemp. There are over 140 known cannabinoids in hemp, and these work on receptors that are found throughout the body and affect different functions, including mood, appetite, the immune system and more, and these products tend to work better over time. Hemp also contains compounds called terpenes which work together with cannabinoids to increase support for calm and discomfort.

The specific blend of cannabinoids and terpenes determines a compound's safety and potency. Making

sure that you not only have the right product, but also a safe product, is critical.

Unfortunately, not all hemp and CBD products (from CBD oils to hemp mobility chews) on the market are the same, and it can sometimes be difficult to figure out what is right for your cat or dog.

So what do you need to look for in order to be confident that you are choosing the right hemp products for your pet? Below are some of the important questions you can ask to find a higher quality hemp or CBD product for your pet.

- 1. Is The Product 3rd Party Lab Tested?**
- 2. Has The Product Been Tested By A University Or Accredited Institution?**
- 3. Has A Safety Study Has Been Performed On The Product?**
- 4. Are There Instructions On Dosage Specific for Cats and Dogs?**
- 5. Does The Company Have A Good And Knowledgeable Support Staff?**
- 6. Do Veterinarians Recommend The Product?**

Remember, all hemp and CBD are not the same, so buyer beware. There could be 10 different bottles on a shelf that say CBD oil, and each oil can have a very different effect on pets. That's where the proper testing, information sharing, and support staff come in. It's not just bottling CBD oil, putting a label on it and selling it that makes a good product. A company that has done the work to find the best strains and has tested the product in a clinical trial are very important considerations in choosing a product for your dog or cat.

HERE AT WEST ORANGE VETERINARY HOSPITAL WE RECOMMENDED ELLEVET CBD AND HEMP OIL PRODUCTS AND MORE INFORMATION ON THESE PRODUCTS CAN BE FOUND HERE:
<https://www.ellevetsciences.com/>

ADDITIONAL INFORMATION AND SPECIFIC CBD RELATED VETERINARY CONSULTATIONS FOR YOUR PET CAN BE FOUND HERE: <https://www.veterinarycannabis.org/>

Monitoring and Prognosis

Your veterinarian may need to do periodic physical examinations every 1-4 months to monitor your pet's response to therapy and the progression of the disease. In addition, if your pet is on an NSAID, blood tests including complete blood counts and biochemistry profiles, should be done every few months to ensure there are no side effects impacting the liver or kidneys.

With therapy and careful monitoring, arthritis can be managed in many dogs and cats, resulting in a good quality of life that you and your pet will appreciate.

Helpful online resources

- Canine Arthritis Resources and Education: www.caninearthritis.org
- Canine Arthritis Management: Caninearthritis.co.uk
- Veterinarypartner.com
- AARV (American Association of Rehabilitation Veterinarians) <https://rehabvets.org/>
- IVAPM (International Veterinary Academy of Pain Management)
- Find a veterinary surgeon (American College of Veterinary Surgeons) <https://ivapm.org/>
- APOP (Association for Pet Obesity Prevention): <https://petobesityprevention.org/>

- WSAVA (World Small Animal Veterinary Association) <https://wsava.org/>
- TPLOInfo.com
- Geriatric onset laryngeal paralysis and polyneuropathy (GOLPP)
<https://cvm.msu.edu/scs/research-initiatives/golpp/living-with-golpp>
- Vital Vet: All Needs for Rehabilitation | Physical Therapy | Sports Medicine | Pet Enthusiasts
<https://vitalvet.org/>
- TriPawds: Help for three-legged dogs and cats <https://tripawds.com/>
- Handicappedpets.com