# Arthritis Animal Hospital, Inc.

Clermont



#### Introduction

The term "arthritis" refers to joint inflammation and swelling which leads to discomfort, stiffness, decreased ease of movement, and pain. There are a number of causes of arthritis including immune mediated (a condition where the body attacks its own joint tissues), traumatic (from previous injury), and degenerative (age-related joint changes). This discussion focuses on Osteoarthritis (OA), a type of arthritis involving bony change which is most often either age-related or caused by joint injury.

## **Does My Pet Have Arthritis?**

## **Signs of Arthritis**

The four most common signs of arthritis are limping/favoring a leg, stiffness (especially after long periods of rest or after vigorous activity), difficulty in normal activities (climbing stairs, jumping, normal play, etc.), and slower gait (lagging behind on walks, tiring easily, slower movements, etc.).

Other signs may include swelling at one or more joint areas, crying in pain, creaking sounds from involved joints, and/or signs of general discomfort (decreased appetite, lethargy/decreased activity, increased aggression, etc.). Signs may be continual or may vary with activity level, weather patterns, and amount of exercise. In some cases, arthritis signs can be very subtle and may be mistaken for signs of "old age." In these animals, positive response to treatment is sometimes the best way to know for sure if a pet is suffering from arthritis.

#### **Diagnosing Arthritis**

If your pet is showing one or more of the above signs, we recommend that you schedule an appointment with one of our doctors to evaluate the problem. In many cases, arthritis can be diagnosed during a routine exam. Our doctors will perform a complete exam to check for other possible causes of discomfort before focusing on the joints. Through joint palpation and manipulation along with information about your pet's signs (including severity and duration) our doctors can identify most problem joints.

In most cases, a complete exam is all that is needed for a diagnosis, but X-rays may be recommended to evaluate the severity of damage to a specific joint or if arthritis of the spine (spondylosis) is suspected. X-rays and/or other testing may be recommended if it is possible that your pet's signs are due to something other than arthritis. In some cases, joint or ligament injury, joint infections, tumors, and bone infections can mimic the signs of arthritis. These are serious conditions that require prompt diagnosis and treatment.

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#### **General Treatment Information**

Unfortunately, there is currently no cure for arthritis and no one treatment that will be 100% successful in every animal. Treatment will vary greatly depending on the joints involved and the severity of the problem. Once your pet has been diagnosed with arthritis, our doctors will work with you to tailor a treatment program to fit your pet's specific needs. This may involve medications, dietary changes, activity modification, exercise/physical therapy, and/or heat treatments/massage. Each of these areas is addressed below. **Please mote:** this handout is for informational purposes only. It is important to work with our veterinarians to customize a treatment program to your pet's needs. Do not start a new treatment or therapy without first discussing it with your pet's doctor.

## **Medications for Treating Arthritis**

## Non-steroidal Anti-inflammatory Drugs (NSAIDs)

This is the most common class of drugs used in arthritis treatment. These are drugs in the same group as aspirin and ibuprofen but specifically designed for pets instead of people. Rimadyl®, Deramaxx® and Metacam® are the most common NSAIDs used at Clermont Animal Hospital, Inc. These medications have been FDA approved for use in dogs only, but "off label" use is other species is possible. Onsior®, the only NSAID approved for use in cats is only labeled for short-term use.

These medications work by decreasing the joint inflammation and pain associated with arthritis. This allows your pet to move more freely and with increased comfort. The effect is usually quick (within 30-90 minutes) and noticeable, but results may very by pet.

In milder cases of arthritis, particularly when the signs are intermittent, buffered aspirin can be used. Because of its propensity to cause stomach ulcers, **no more than 6 doses of aspirin should be given per week.** If your pet requires more frequent dosing, it is important to switch to a prescription-strength anti-inflammatory. Also, it is VERY important never to use any other human products—these can be toxic to your pet. The dosing and information are below:

## Buffered Aspirin—DOGS ONLY!!! ALWAYS GIVE WITH FOOD!

- This can decrease the discomfort and inflammation of mild arthritits
- Aspirin should be used sparingly on only the worst days and never more than three days per week.
- DO NOT substitute ibuprofen, acetaminophen, or any other medication
- Discontinue use if signs of upset stomach, decreased appetite, vomiting, or diarrhea develop.
- Do not use if your dog is on prescription medications for arthritis, steroids, or blood thinners.
- Use the dosing chart below to properly treat your dog:

• 5-15 pounds 1 baby aspirin twice a day

15-30 pounds
 30-50 pounds
 34 adult aspirin OR 2 baby aspirin twice a day
 36 adult aspirin OR 3 baby aspirin twice a day

• More than 50 pounds 1 adult aspirin twice a day

All medications in the class have side effects that should be considered. A blood chemistry panel will be recommended in your pet to screen for liver and kidney problems before long-term use is considered. Pets with any sign of liver or kidney problems will require careful monitoring while on medication as these medications can worsen pre-existing conditions. Other animals will need periodic (semiannual or annual) blood work to check these values. Other side effects include upset stomach (vomiting and/or diarrhea) and stomach ulcers (often resulting in discomfort and dark tarry stool). As with all medications, be sure to inform your veterinarian if your pet develops any new signs or problems especially when starting a new medication or a new dosage.

<u>Steroids</u>: For animals with immune mediated arthritis, these drugs will play a key role in treatment. Dogs with severe spondylosis (arthritis of the back) resulting in paralysis often benefit from short courses of steroid therapy. For most pets with OA, however, steroids are only used as a "last resort" treatment when all other combinations of therapy and medication have failed to provide sufficient relief.

<u>Opioid Class Pain Medications</u>: Aside from some limited uses in arthritis induced by trauma and as a "last resort" treatment in extremely painful animals, these drugs are rarely used. These medications cause sleepiness and decreased activity which can actually worsen arthritis signs in many animals.

<u>Joint Injections:</u> A number of different medications can be injected directly into the joint to provide relief from severe arthritis and inflammation. This therapy is most effective when only one or two joints are significantly affected. This can provide very effective, albeit short-term, pain relief.

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# **Dietary Changes and Supplements**

## Weight Loss

If your pet is only slightly overweight, decreasing the number of calories fed may help your pet achieve a more healthy weight. This is one of the best and most important treatments for arthritis as it minimizes the strain put on your pet's joints by unnecessary weight. Even the loss of a few pounds can make a significant difference for many pets. Decreasing the amount of food fed or switching to a lower calorie food are the two main dietary changes to consider to help your pet loose weight. If your pet is more than just a little on the heavy side, be sure to discuss a complete weight loss program with one of our doctors.

In some cases, calorie restriction may not be successful in helping some pet shed the pounds. Prescription diets and weight-loss medications may help these pets, but require the guidance and supervision of a doctor. Selentrol® is a medication that can be used to control appetite and prevent dogs from overeating. Hills Metabolic® diet is a specially formulated food that results in weight loss in most animals without the excessive hunger or food rejection seen with other weight

loss diets on the market. If you are trying to help your pet loose weight and are not getting the results you would like, talk to one of our doctors about these options.

Occasionally, medical conditions (such as low thyroid hormone levels or Cushing's Disease) may be contributing to your pet's obesity. If your pet is not loosing weight as expected, especially if there are other signs of illness, it is important to schedule an appointment for an examination. Our doctors can help to identify and correct such medical problems.

#### ProNutra Professional Strength Omega-3-Fatty Acid Supplement®

Omega-3-fatty acid supplementation helps improve joint health and decrease joint inflammation; however, not all omega-3-fatty acids are equally effective. DHA and EPA have the best recognized effect on joint health. The ProNutra product has high concentrations of both of these when compared to other products on the market. In addition to its benefits for joint health, omega-3-fatty acids have been shown to be beneficial for the skin, brain, heart, kidneys, and immune system. Side effects are rare at recommended dosage, and resolve when decreasing the dose or stopping the medication.

ProNutra Professional Strength Omega-3-Fatty Acid Supplement® provides guaranteed analysis and quality assurance through testing every batch of their product through an independent lab. Analysis results for each lot are available online at <a href="mailto:info@pro-nutra.com">info@pro-nutra.com</a>. Human-approved overthe-counter products are available, but quality varies greatly due to lack of FDA regulation. These are NOT recommended by Clermont Animal Hospital due to lack of quality assurance. A Consumer Labs study showed that only 16% of over-the-counter products met their label claims. If you are considering using an over-the-counter version, be sure to talk with our doctors about quality assurance and how to obtain an independent analysis of the product you are considering.

## **Dasuquin®**

This product contains glucosamine, chondroitin, and avocado/soybean extracts which have been shown to help improve overall joint health and mobility when used together as a dietary supplement in dogs. Glucosamine and chondroitin are among the basic building blocks for joint structures, allowing the body to repair tissue damaged by arthritis. The avocado/soybean extract has been clinically shown to decrease joint inflammation. Diarrhea is the most common side effect with this product. Speak to your pet's veterinarian if this occurs.

Dasuquin® is available through our hospital. It is recommended because it has been specifically formulated for arthritis in dogs and cats and has an excellent reputation for quality assurance. Human-approved over-the-counter products are available, but quality varies greatly due to lack of FDA regulation. These are NOT recommended by Clermont Animal Hospital due to lack of quality assurance. A Consumer Labs study showed that only 16% of over-the-counter products met their label claims. If you are considering using an over-the-counter version, be sure to talk with our doctors about quality assurance and how to obtain an independent analysis of the product you are considering.

#### **Duralactin® Supplementation**

Duralactin® is a dietary supplement product containing MicroLactin, a milk protein that has anti-inflammatory properties. While there are only a limited number of controlled studies to prove that this product is effective in treating arthritis, the existing studies and the testimonials of pet owners using this product support its efficacy. It is a very safe product with no known side effects and may be worth trying for your pet. Changes to the treatment program should be made one at a time so that it is possible to fully assess the impact of each on your pet's condition.

## Hills j/d® Prescription Diet

This is a commercial diet designed specifically to provide extra nutrients to support the joints. It has a balance of omega-3 and omega-6 fatty acids as well as low levels of glucosamine and chondroitin. This food is not intended as a substitute for nutritional supplements, but as a way of ensuring baseline levels in the system. Because of the short shelf life of this food, this is a special-order item. If your pet is on Hills j/d® it will be necessary for you to pre-order this product.

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# Activity Modification Exercise and Physical Therapy



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## **Activity Modification**

## **Decrease High-Impact Activities**

High-impact activities include jumping, rough play with other animals, prolonged running, quick/sharp directional changes, scrambling in and out of high vehicles, and agility course training. These types of activities put added stress on already damaged joints. Dogs with mild arthritis may tolerate these activities well, but the more severe the arthritis the more important the restrictions become. Many animals with arthritis naturally restrict their activity, but it is sometimes necessary to enforce restrictions for active pets. If your pet is still very active, work with one of our doctors to determine the effect of the high-impact activities on your pet's joints. It is not always necessary to stop all of these activities. In many cases activity modification recommendations can be made to allow your pet the continued activity while minimizing the impact on the joints.

## **Increase Low-Impact Activities**

While the activities in the section above should be limited that does NOT mean that ALL activity should be limited. In fact, animals with arthritis benefit greatly from a regular schedule of low-impact activities. These activities include walking, swimming, treadmill use (dogs only), and quiet play. These types of low-impact activities decrease joint stiffness, enhance blood flow (leading to decreased inflammation), promote muscle health, and provide your pet with a fun distraction from the discomfort of arthritis. By making a point to increase your pet's low-impact activities you can improve his/her overall quality of life. See the section below on "Exercise/Physical Therapy" for tips on incorporating these low-impact activities into a therapeutic exercise regiment.

## **Exercise and Physical Therapy**

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#### **Range-of-Motion Exercises**

Many pets with arthritis benefit from gentle range-of-motion exercises, especially if they are limping or not bearing weight on a leg. These exercises involve gentle movement of the affected joints while your pet is lying or standing. Joints are manually put through the motions of walking or other normal movements. This helps to loosen stiff joints and start joint fluid circulating. These exercises are especially good first thing in the morning, after periods of rest, or as a warm-up to other exercise or physical therapy routines. They are best done with your pet lying down Ask your pets veterinarian to show you how to properly perform these exercises.

#### **Routine Exercise**

Most patients suffering from arthritis will benefit from a regular exercise program. Movement helps to circulate joint fluid which allows inflammation and joint stiffness to decrease. In addition, regular exercise helps build muscle mass which provides support for affected joints decreasing the strain placed on them. Finally, exercise helps maintain a healthy body weight, a key part of arthritis therapy as excessive weight puts undue strain on all joints.

It is important to tailor an exercise program to your pet's specific energy and ability levels and to your own life style. Exercise programs are only successful if they are enjoyable and easy for both you and your pet to follow. Ideally, exercise should be part of the daily routine, although the length of sessions and types of exercises may be varied to fit your family's schedule. Be sure to choose low-impact exercises that will not further damage your pet's joints. Leash walking on ground with good footing, treadmills (including underwater treadmills), and swimming are all examples of good exercises for dogs with arthritis. Cats and exotic animals require less formal exercise programs. Our doctors will be happy to help you to create an exercise program for your pet and give you tips on making it work with your life style.

In some cases, specific rehabilitative exercises may be recommended to help your pet recover. These are most common following injury or surgery or in dogs with advanced degrees of arthritis causing muscle wasting. These exercises are designed to specifically target certain muscle groups to build muscle mass. Muscles provide essential support for the joints which is important in minimizing the impact of arthritis. If your pet's veterinarian recommends specific exercises, be sure to include those in your exercise program as instructed. Make sure that any changes, modifications, or substitutions for these exercises are discussed with the doctor as they may impact the therapeutic quality of the exercise.

Regardless of the type(s) of exercises you and your doctor choose for your pet, it is important to start slow and build up gradually. Your pet should not show any signs of limping or discomfort following an exercise session. These are signs that the exercise was either too rigorous or the session was too long (or both). If these signs occur, follow the recommendations in the "Cold/Heat Therapy and Massage" section below. Be sure to decrease the session length and intensity for at least a few days after this episode. It may also be helpful to establish a warm-up routine using heat therapy, massage, and range-of-motion exercises to ease your pet into the more rigorous part of the exercise routine.

After two to four weeks on an exercise program (and at least monthly thereafter), it is important to evaluate the regiment and make modifications as necessary. If your pet had muscle wasting before starting the program, our doctors or staff can teach you to measure and chart your pet's muscle mass so that you can objectively measure the success of exercise. Often pets are ready for an increase in the intensity or types of exercises by this time in the program. Also, if you find that you have not been sticking with the program, don't give up. Instead, try to identify the reason(s) and modify the program to allow for them. Be sure to keep you pet's doctor involved as you modify, change, or intensify the exercise program.

## **Physical Therapy**

Physical therapy can be a useful treatment for animals recovering from any form of joint trauma to minimize arthritis formation. Animals with arthritis following traumatic events may also benefit. In moderate to severe arthritis of any cause where muscle wasting/deterioration is present, physical therapy combined with appropriate exercise may play a key role in building muscle mass to help support affected joints.

A physical therapy program must be custom designed to fit the specific needs of your pet. For

basic physical therapy programs, our doctors will work closely with you to set up a program and monitor the progress of your pet. There is also a licensed rehabilitation technician in Cincinnati who can handle more involved physical therapy needs. Programs range from basic range of motion exercises and straight line walking to more sophisticated treatments that target specific joint and muscle sites. Most of the time a program can be created that you can follow at home with your pet, minimizing the need for continual hospital stays/visits.

# **Cold/Heat Therapy and Massage**



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## **Cold Therapy**

Icing or applying cold packs to an inflamed joint can help minimize swelling and inflammation and decrease discomfort. This is particularly helpful in the first three days following an injury or surgery as well as following episodes of unusually strenuous activity. For general purposes, the rule of thumb is apply heat before and ice after activity; however, in some cases (i.e. immediately following surgery) heat is NOT recommended. Be sure to talk to your veterinarian about the best program for your pet.

Commercial ice packs can be used; however, they are often awkward to apply and too intense for comfortable cooling. A package of frozen peas (reserved for this purpose) works well as an ice pack because it can be easily wrapped around the joint and is not as intensely cold as a standard ice pack. A liquid cold pack can be made by combining rubbing alcohol and water in equal parts in a ziploc bag (double bag to prevent leaks) and freezing. This will form a slush that retains the cold of an ice pack while conforming to the joint. The cold pack should be applied to the sore joint(s) for 15-20 minutes. This may seem like a long time, but it is necessary for adequate deep tissue cooling and effective treatment of inflammation.

## **Heat Therapy**

Many pets with arthritis benefit from heat therapy, particularly during the colder months or during low pressure weather patterns. A microwave hot pad or rice packet designed for medical application of heat in humans works well in animals too. Use caution when microwaving not to over heat the pad as there is the potential for burns. A standard electric heating pad can also be used, but should not be used on the "high" setting or for extended periods as the heat coils can also lead to burns. A towel run under hot water and sealed in a ziploc bag can also make an effective short-term heating pad.

Apply heat directly to affected joint(s) for five to 15 minutes at a time. If multiple joints are affected, the heat source can be moved from joint to joint every few minutes. This therapy is most helpful first thing in the morning, after prolonged periods of inactivity, and during cold/wet weather. If your pet objects to the heat, try decreasing the intensity of the heat or the length of application. Stop immediately if your pet seems at all uncomfortable or painful as a result of heat therapy.

#### **Massage Therapy**

The pressure and kneading motion of a gentle massage feels good to many animals with arthritis. Massage also has the benefits of increasing blood flow, loosening stiff tight muscles and joints, and decreasing muscle tension that often results from the discomfort of arthritis. This is particularly beneficial when combined with gentle range-of-motion therapy. Our doctors can show you some basic massage techniques to uses at home and teach use range-of-motion exercises to help your pet.

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