



Arthritis management for dogs

Osteoarthritis (OA) is the most common cause of chronic pain in dogs. It affects 80% of dogs over the age of 8 years old, and potentially up to 35% of dogs of all ages. It is considered a welfare concern in companion animals such as dogs, especially if left untreated.

What is arthritis?

Osteoarthritis (degenerative joint disease) is the most common form of arthritis and is a condition that will continue to worsen with time, however the symptoms can be managed.

Within the joint, the ends of the bones are covered in a smooth and springy material called cartilage which cushions the bones as the joint moves and weight bears. Surrounding the bones and cartilage is a viscous liquid called synovial (joint) fluid which maintains a healthy joint, and buffers during movement. Osteo-arthritis causes the cartilage to wear and break down and the joint fluid starts to become watery, meaning that the rough bone surfaces rub against each other. These changes cause inflammation and pain within the joint, as well as swelling and stiffness. The body starts to grow new bone to try to help with the changes, however this often causes further irritation and discomfort.

Symptoms

When we think of joint pain in our pets, we imagine an obvious limp or visible pain when moving. However, in the initial stages of arthritis, the signs are not always obvious.

Signs in dogs:

- Changes in temperament/ grumpiness
- Increased anxiety/clinginess
- Licking/changed grooming/bald patches/unkept coat
- Less playful
- Slower on walks
- Takes longer to get up, especially after resting
- Can't jump
- Loss of muscle
- Finally... limping/visible pain

If you notice any of these signs, your pet may be in pain and should be checked by a vet.

Diagnosis

The information described by you during a consultation is an important part of diagnosing your pet, so make sure you let your vet know any changes you have noticed. The next step is a physical examination which is key to identifying areas of pain, reduced range of motion, muscle wastage and any crunching/creaking (crepitus) in the joint.

X-rays can be useful to identify the extent of changes in the joint and also try to rule out other potential causes of lameness. However, the appearance of a joint on x-ray does not always correlate to the pain shown by the animal; a very small lesion in a prominent place can cause much more pain than a large lesion in a less prominent area of the joint. For this reason, how your pet is coping is the main factor in deciding on therapy.

Treatment

There is no cure for arthritis, but there are lots of options for making your pet more comfortable. Daily routine and management play as much, if not more of a role than medications, especially in the early stages.

1. Manage weight

- a. If your pet is overweight, the joints need to work a lot harder and any pain caused by



weight bearing will be amplified. With mild arthritis, weight loss may be all that is required to improve your pet's quality of life. Tackling dog obesity can seem daunting at first, however weight loss will have a significant positive impact on their arthritis. Excess body weight increases the pressure that their joints are subjected to, which will exacerbate the condition and increase pain. To start your dog's weight loss journey, we would recommend an appointment to see one of our nurses for a weight clinic. The first change is to reduce the amount of treats/table scraps that your pet receives and to reduce the daily ration size a little. Many weight loss foods are available to help with the process.

2. Exercise management

- a. There is no getting around the fact that your arthritic pet won't be as able to do the exercise that they used to do. Changes will have to be made, and the key is consistency. For dogs, a similar length walk or several smaller walks each day is best. The worst exercise pattern is short walks during the week followed by a long walk at the weekend. During lameness flare-ups, rest for a few days before returning to exercise, but day-to-day, steady exercise is best as breaks without consistent exercise can increase stiffness.

3. Environmental management

- a. Make sure your pet has a comfy bed to sleep in. However, soft and deep doesn't always mean better, as they can be harder to get up out of. Try a range of bed types to see what suits your pet best.
- b. Consider ramps instead of steps or to get into your car for walks.
- c. Keep the house cosy! Cold air worsens joint pain and damp air is even worse.

4. Joint supplementation and diet

- a. Modern joint supplements have come on leaps and bounds and many have a natural anti-inflammatory action. These can be used without pharmaceutical painkillers in mild arthritis or for those animals at risk but not showing signs. They can also be given alongside painkillers to try to reduce the dosage of painkiller required.
- b. Prescription diets are an easy way to supplement your pet with ingredients that are beneficial to joint disease, such as omega 3.

5. Pain management

- a. Non-steroidal anti-inflammatory drugs (NSAIDs) – These have both an anti-inflammatory and pain killing action and are one of the mainstay drugs for treating arthritis. Early in the disease, they can be used during flare-ups but as the condition progresses, daily long-term treatment is recommended to prevent a phenomenon called wind-up pain. NSAIDs generally have low side effects, but as with any long-term medication use, it is recommended to check organ function via a blood test periodically, to monitor for any signs of strain, especially to the kidneys.
- b. Anti-NGF monoclonal antibody therapy (bedinvetmab, Librela) - This is a 4-weekly injection given under the skin by a vet or vet nurse. It contains a protein that recognises and attaches to nerve growth factor (NGF) which is a protein that plays a role in the transmission of pain signals in the spinal cord. This prevents the NGF from attaching to its receptors on nerve cells and interrupts the transmission of pain signals. Overall this medication has few side effects, but your vet can discuss whether it is right for your pet.
- c. Adjunct pain killers – These are painkillers that can be added alongside, or be used instead of NSAIDs or monoclonal antibody therapy, either in advanced arthritis, or for those animals which cannot tolerate NSAIDs.
- d. Stem Cell Therapy (DogStem) – This is an injection of stem cells that can be administered into the either the elbow or hip joint in mild to severe arthritis. The procedure is carried out under general anaesthetic. Stem cells are 'blank' cells that are able to divide into many tissues within the body, to aid repair.
- e. Pentosan Polyphosphate (cartrophen) – This is a course of injections under the skin which help to rebuild cartilage and reduce inflammation. They are administered by the vet and



can be used alongside some painkillers.

6. Physiotherapy/hydrotherapy

- a. These help to build the muscle back up and improve mobility. For some dogs, physiotherapy may be all they need to improve their joint pain and quality of life. Swimming in the river is not a substitute for hydrotherapy as most dogs will be erratic with their swimming when chasing sticks etc.

7. Surgery

- a. In some cases, surgery such as hip replacement can be considered as a treatment for arthritis. These are big procedures which carry a high risk of complication, and care must be taken to ensure your pet is an appropriate surgical candidate. That said, in some cases, they can provide dramatic relief.
- b. Femoral head and neck excision – This involves removing the ball part of the hip ball and socket joint. This means that the bones are no longer rubbing together causing pain and the muscles of the hip and pelvis hold the joint in an appropriate position. This is considered a 'salvage' procedure as full function will not be regained but many small breed dogs can have a good quality of life after this procedure.