

Caring for Dogs with **Arthritis**



Osteoarthritis is the most common cause of pain in dogs

Can you believe over **80%** of dogs over the age of 8 have arthritis?¹

Even more shocking is that potentially up to **35%** of dogs of all ages are affected by the disease.¹

Reference:
1. CAM, Caninearthritis.co.uk - May 2023.

What IS arthritis?



Arthritis is a degenerative disease that affects the structure of the entire joint, causing pain and inflammation. Over time this can lead the joint to weaken and become less stable.

Irreversible degeneration to the cartilage within the joint capsule results in inflammation and subsequent thickening of the fibrous tissues, thus reducing the affected joint's ability to move freely.

Over time, the lubricative fluid around the joint lessens, new bone develops and the joint becomes misshapen. Consequently, the joint's ability to absorb impact forces is reduced. The affected joint will continue to become weaker and more painful as the supporting muscles and ligaments begin to change and weaken, often resulting in an altered gait or lameness.

Unfortunately, as time goes on, arthritis will become more painful. The number of pain receptors increase and signal pain more frequently. If arthritis is allowed to persist without intervention a process known as 'wind up' may occur. This is where the brain becomes increasingly aware of the pain signals being fired from the arthritic joint. As a result, what was initially perceived as a low level of pain, can be perceived as a much more intense pain sensation.

Stages of OA

Normal structure of the joint **breaks down**

This causes pain so the dog will **use the limb less**

Muscles and ligaments around the joint **weaken**

Dog will compensate **causing pain elsewhere**

The feeling of pain becomes **amplified**



What causes arthritis?



Arthritis typically develops for the following one of two reasons, although in some cases, it may be a combination of both:

- A) **Normal forces** are placed through **abnormal joints**
- B) **Abnormal forces** are placed through **normal joints**

Breed/size

Certain dog breeds are more susceptible to arthritis than others. Larger dogs are most at risk because of the amount of pressure their weight places on their joints. Some breeds of dog are particularly predisposed to developmental diseases such as hip or elbow dysplasia; other breeds are prone to deformities of the joint during growth which cause the animal to develop abnormal movement patterns. In most instances, this will cause early onset arthritis.

Obesity

Excess body weight can not only increase the likelihood of developing arthritis but can also hasten the progression and severity of existing disease. Heavier animals increase the mechanical load and force exerted through their joints daily, particularly when engaging in exertive activities such as running or jumping.

Age

Just like you and me, as your dog approaches old age the chances of suffering from arthritis increase. Older animals are more prone to arthritis caused by years of wear and tear on their joints.

Injuries

Any injuries to the bone, joints, or ligaments, especially if not properly treated, can increase the likelihood of an animal developing arthritis.



Signs of arthritis

Arthritis causes chronic (persistent) pain, signs of which are often very subtle. It is a misconception that arthritis only affects older animals. You should be on the look out for signs in dogs of any age. Early detection is key to managing the disease. Those that live with the animal are best placed to notice subtle changes to the dog's movement or behaviour.



Changes to posture or movement:

Asymmetrical sitting or drop position

Stiffness, especially when getting up from laying position

Licking the joints

Lameness/limping

Difficulty settling or getting comfortable

Difficulty posturing to go to the toilet or walking while toileting, or unable to eliminate completely

Hesitating when jumping up or down e.g. sofa or car

Showing signs of difficulty getting up or down stairs

Changes in body shape

Changes in posture e.g. curved spine

Changes in coat e.g. hair looks tufty in places/ developing a 'mane'

Asymmetrical nail wear and /or change in toe position

Panting

Lower head carriage

Loss of appetite

Behavioural changes:

Change in temperament

More reactive to dogs and/or people

More sensitive to noise

Less tolerant of fuss or grooming

Sleeping more

Unsettled and restless

Slowing down on a walk or reluctance to go for a walk altogether

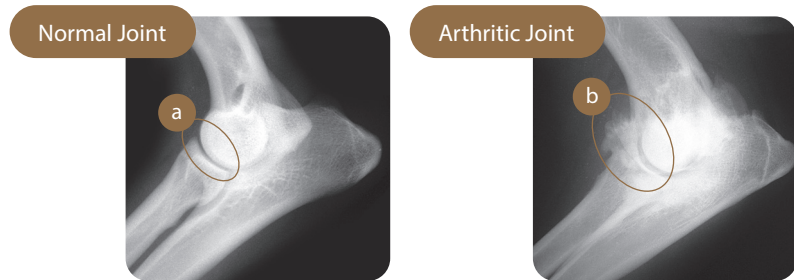
Diagnosing arthritis

Only a vet can diagnose arthritis. They will do this by physically examining the animal. In some cases, they may also take x-ray images and blood samples, although this is not always necessary.

Elbow joint damage

Traumatic injury, such as fractures or dislocations, can result in degenerative joint disease (DJD) in the elbow. In addition, large breeds may suffer from developmental problems that can lead to osteoarthritis of the elbow.

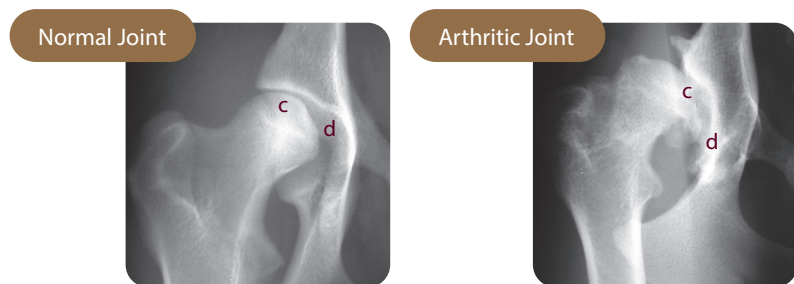
The normal joint x-ray shows the clear even line of the joint space (a). This reflects the smooth surfaces of the cartilage in the joint, allowing easy well-supported movement. In the arthritic joint the cartilage-covered faces have become damaged, leading to instability and new bone formation (b) resulting in serious stiffness and pain for the dog.



Hip joint damage

Dysplasia is particularly common in many of the larger working breeds of dog, where a deformity in the structure of the hip joint leads to abnormal wear and tear.

In a dysplastic hip, the ball at the head of the femur (leg bone) (c) and the socket in the pelvis (d) do not fit together snugly, causing friction when the limb is moved. This is painful and further damages the cartilage surface, resulting in inflammation of the joint and more pain.



Stifle (knee) joint damage

Rupture of the supporting cruciate ligaments is one the most common injuries in dogs. It is a major cause of DJD in the stifle (knee) joint.

The 'blurred' image of the arthritic joint shows the joint effusion (swelling) and new bone formation (e) that is a feature of DJD following stifle joint ligament rupture, causing pain in and around the joint and reducing mobility.

If untreated, the instability of the joint will quickly result in arthritis. Arthritis caused by stifle joint damage is usually more severe in large dogs than smaller dogs.



Spinal damage

Spondylosis, or ankylosing spondylitis, is not strictly osteoarthritis, rather it is a disease of ageing that is characterised by the formation of bony outgrowths between the vertebrae.

As can be seen on the x-ray, the bony growths of the separate vertebrae eventually fuse together. This bridging between the vertebrae reduces the flexibility of the spinal column and can lead to an abnormal gait (stride action) and reduced agility.

Spondylosis can often be present without showing any clinical signs, but may result in pain from the bony growth pressing against the nerves in the spine (f), and can in turn cause other problems as the nerves become less able to carry information.



Arthritis requires multimodal management

Medical management

Your vet will advise you on the most appropriate medication for your dog. There are a wide range of drugs available for managing arthritic pain and inflammation which can radically improve your dog's quality of life.

The most common medicines used to relieve the pain associated with arthritis are known as NSAIDs (nonsteroidal anti-inflammatory drugs). This type of medication comes in a variety of presentations, including injectables, oral suspensions (liquids) and tablets. It is important to ensure you keep up with any treatment your vet prescribes in order to achieve full, effective management of your dog's condition.

Possible surgery

Surgery is sometimes necessary to treat osteoarthritis. Depending on the case, the mechanics of the joint may be altered by either fusing the joint into a set position (to relieve chronic pain) or alternatively by reconstructing a ligament or the joint itself.

More surgeons are now utilising modern technology and performing arthroscopy (inserting a camera into the joint), through which they can remove some damaged bone and cartilage and gain more information regarding joint health/status. It is advisable to speak to your vet about all the options to see if surgery would be appropriate for your dog.

Modifications and adaptations to home environment

- ✓ Reduce the amount of slippery flooring that the dog needs to walk on by using well placed mats or carpet in places where the dog spends a lot of time.
- ✓ Find a suitable bed that is warm and comfortable.
- ✓ Try to prevent the dog from needing to climb or jump as this will put extra pressure on joints, instead use carefully placed ramps to help them get on and off furniture or in and out of the car.
- ✓ As arthritis worsens, dogs may find it uncomfortable to get into the right position to go to the toilet, often leading to them trying to hold on for as long as possible. **Having quick and easy access to a non-slip toileting spot** can help them feel more secure when they need to go.
- ✓ **Manage interactions with other dogs carefully** - rapid movements or contact play can be painful.



Exercise

Try to keep exercise appropriate, avoid long high intensity walks and ball throwing as these can worsen arthritis. Instead opt for regular shorter walks more appropriate for the dog's ability. Modifying activities **can help** to keep them entertained, scent walks are a great example of how you can do this. Remember, exercise should be **CALM**:

C Consistent **A** Appropriate **L** Low impact **M** Moderation

Weight management

It is important to maintain an ideal **Body Condition Score** so as not to put unnecessary pressure on the animals' joints. You should be able to see the dog's waist from above and abdominal tuck from the side. Ribs should be easily felt but not overtly prominent:



Complementary therapies

Hydrotherapy, physiotherapy, acupuncture, and laser therapy are just some of the therapies that can be extremely helpful as part of a multimodal approach to the management of arthritis. To maximise the benefit of holistic therapies they should be started as early as possible. It is important such therapies are conducted **alongside** a referral from your vet practice and that they are conducted by a professional with the appropriate accreditations. Your vet will be able to advise you on this.

Veterinary Practice Details



Is your dog showing any of the below signs of arthritis?

- Change in temperament
- Less tolerant of fuss or grooming
- Sleeping more
- Difficulty settling or getting comfortable
- Hesitating when jumping up or down
- Changes in coat
- Asymmetrical nail wear or change in toe position

If so talk to your vet today about treatments and therapies available.



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