



FEATURE

# Arthritis in Dogs

*What is it and what can we do about it?*



Arthritis is the term most people use when talking about osteoarthritis (OA), the most common joint disorder in the world affecting humans and animals. The word comes from “osteo” meaning bone, “arth” meaning joint, and “itis” meaning inflammation. Data from various sources suggest it affects 80% of dogs over the age of 8 years old. It is the most common cause of chronic pain in dogs and, in a study of over 12,000 German Shepherd Dogs in the UK, arthritis or musculoskeletal disease was the most common cause of euthanasia or natural death, surpassing even cancer.

Arthritis used to be thought of as natural and inevitable “wear and tear” in old age, wearing down the cartilage until none is left, leaving bone rubbing on bone. We now know it is complex, involving all the structures of the joint and that younger dogs can have it too. In fact, the joints of young dogs can begin to have problems very early on if they have conditions like hip dysplasia, patella luxation or injuries like cruciate ligament rupture in the knee (stifle). Arthritis can develop in the knee only three weeks after a cruciate ligament rupture.

## What are “joints”?

*Joints* are essentially the joining of two (or more) separate bones, to allow body parts to move. The surfaces that meet are covered with a smooth cushion called *cartilage* which allows low-friction movement. The entire joint is enclosed in a water-tight *capsule* with a special lining (synovium) that produces fluid to lubricate and feed the cartilage. The bones are held together by guy-ropes called *ligaments*, only allowing movement in certain directions. Each part of the joint, i.e., the bone, cartilage, lining, fluid, capsule and ligaments, has an important role that depends on the other parts to do its job properly. Movement and weight through the joint stimulate the nerves to fire and switch on surrounding muscles, helping to renew fluid, keeping the circulation going and cartilage healthy.

## How does arthritis affect the joints?

In arthritis, the cartilage is damaged, sometimes on a very small scale, but, over time, the smooth surface becomes rough, the lining becomes inflamed and the fluid becomes too thin and doesn’t do its job of lubricating or giving nutrients to the cartilage. As a result, the cartilage thins and tiny new areas of bone grow around the edge of the joint. The cartilage loses its ability to cushion, there’s friction inside the joint and the cartilage is eventually destroyed.

Studies show that a dog who is carrying extra weight will likely develop arthritis much sooner than a dog who is a healthy body weight. Losing just 1.1kg for every 10kg of bodyweight has been proven to significantly reduce lameness. The extra weight on damaged cartilage speeds up the process and makes it even more painful.



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### Symptoms of arthritis

It's easy to miss one or two of these symptoms when they first start, so it's best to look for changes to your dog's normal behaviour, appetite or routines:

- **Pain** – usually a dull ache, made worse after the joint has been used for a while, for example at the end of the day or after a walk. Look for the dog nudging a particular body part, licking or nibbling at an area, or avoiding things they normally like to do like jumping on/off the bed or in and out of the car.
- **Stiffness** – usually worse first thing in the morning, causing difficulties getting up off the floor, limping, walking slowly, trouble bending the neck to reach a food bowl or trouble crouching to go to the toilet. These can also be, and often are signs of pain.
- **Swelling** – but not always present. The degree varies but usually, the more swelling, the more severe the arthritis is. A swollen joint is a painful joint.
- **Weakness** – pain, inflammation and swelling irritate the nerves and switch off the muscles that are there to support and move the joint. This puts even more weight through the joint, which becomes a vicious circle of more pain causing more weakness, causing less movement, causing more weakness, causing more pain! The heavier the dog, the more weight is placed on weakening muscles.

### What can I do to prevent arthritis?

We don't have a cure for it or a magic pill that stops it from happening. Some dogs develop it despite being healthy and active and some dogs don't. There are a few theories being developed but a cause has not been proven. We do know that certain injuries or conditions mentioned earlier make it more likely to happen. We also know that older dogs are likely to have it, but it may not actually be causing them pain (the same goes for humans).

The latest research says body weight is the biggest factor in how severe arthritis becomes.

- Keep your dog at a healthy body weight. Studies show that a lot of owners don't know if their dog is a healthy ideal weight or not, so if you're unsure, ask the Vet or Vet Nurse to weigh your dog and give them a Body Condition Score (BCS). A recent study found that dogs with a BCS of 4 or 5 were less likely to have arthritis than those with a BCS of 6 or higher.
- Do some sort of physical activity each day with your dog. Even a sniff walk on grass is really beneficial. Wading in water really helps, especially in the underwater treadmill we have in our Clinic.







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## What can I do to prevent it?

- A qualified animal physiotherapist can show you strength and conditioning exercises to do – it's never too late to start. 2-3 short exercises every day or two can make a huge positive difference in keeping a dog's joints healthy and prolonging their life.
- Ask your Vet regarding whether they recommend a particular diet, drug or supplement, as they will be aware of what really works versus the hype on forums, Facebook, etc. Very few supplements are scientifically proven to have an effect so beware before you spend a lot of money on them.

## My dog already has arthritis – what can I do?

- Unless they're limping or refusing the walk, encourage them to walk even if they can't manage very far. Two six minute walks a day are better than one long walk every couple of days. Go at their pace, even if it's very slow. Respect when they refuse to walk further or they sit down – it's their way of saying "enough"! This is a sure sign of pain so it's time for a Vet check-up.
- Walk your dog on grass. The softer surface has less impact on their joints, and there are more smells which stimulates their brain and gives them enjoyment, even if it's a short walk.
- Visit a qualified animal physiotherapist who will check out all their joints, muscles, nerves, movement and whether they have pain or swelling. They will also:
  - o Give you advice on how you can help your dog and improve their quality of life,
  - o Show you easy tasks or exercises to do that will strengthen your dog,
  - o Help with any pain or swelling (working with your Vet too),
  - o Perform treatments such as laser, massage, acupuncture, manipulation and taping to make your dog feel better and move more easily,
  - o Work with you on a management plan to get your dog more active, which will help manage the arthritis longer term and assist with a healthy weight,
  - o If your dog likes water, they may recommend hydrotherapy or an underwater treadmill. Water lifts some of the weight off their joints, allowing them more freedom of movement. The water pressure helps gently massage the joints and stimulates the circulation. In next month's article I'll talk about hydrotherapy.
- Always consult the Vet regularly to examine your dog and discuss any medications to treat the arthritis and give pain relief. Because we know that most dogs just want to please us and their natural tendency is to not show weakness to the pack leader, we sometimes miss subtle signs of pain. If a dog is limping, they're in pain and they need to see a vet.

**Words: Emma Duffy**

## Animal Physio at Whole Family Health

We are all about a pet's quality of life. Dr Helen Nicholson has a PhD in Animal Physiotherapy and is a world-leading expert in a wide range of modalities such as **laser treatment, hyperbaric oxygen therapy, underwater treadmill, wheelchair fitting, exercise and conditioning programs, rehabilitation, massage and manual therapy.**

Emma Duffy (BSc (Hons) Physiotherapy) is a physiotherapist with 20 years experience trained in animal physiotherapy techniques, hydrotherapy, acupuncture and canine massage working closely with Dr Nicholson. We are registered with AHPRA (Australian Health Practitioner Regulation Agency) and fully insured to practice. Contact [theteam@wholefamilyhealth.com.au](mailto:theteam@wholefamilyhealth.com.au) or (02) 9833 3363 if you have questions or you'd like to discuss a case. See our videos on [www.wholefamilyhealth.com.au](http://www.wholefamilyhealth.com.au)

