3. Exercise control – exercise is good for joints, but there is good exercise and bad exercise! In general it is the type of exercise that is more damaging than the quantity: controlled lead walking is generally good; sudden stop-start off-lead exercise, such as ball chasing, can be very damaging. Arthritis is not a static condition and the amount and type of exercise may need to be varied according to the current clinical picture.

NB both weight control and exercise control often require lifestyle changes on behalf of the dog's family – dogs are only overweight if they have been allowed to get overweight as we control their food intake!

There are other forms of treatment that are available, but these should never be substituted for the three important points above! Most important of these adjunctive therapies is to develop muscle strength and condition – muscle wasting is common in arthritic dogs as they get older and do less exercise. Hydrotherapy and physiotherapy are excellent methods of promoting muscle condition.

Many joint supplements are available, but they should always be used in conjunction with the appropriate treatment.

Regular veterinary assessment of arthritic dogs is important so that your vet can choose the right treatment for your dog at that time.

## Summary

1. Arthritis is usually the sequel to an underlying joint malformation
2. Once developed it is irreversible , so requires control, not cure
3. It is a painful condition, but this pain is often poorly recognised and understood
4. Treatment relies on effective pain control, weight loss and appropriate exercise
5. Adjunctive treatments aimed at supporting muscle condition are useful

XL Vets Pets

XLVets Small Animal member veterinary practices work together to share experience, knowledge and ideas to ensure the highest levels of quality and care for their client's pets. XLVet member practices provide a compassionate and caring service for all pets and at the same time offer comprehensive and up-to-date treatment in all fields of veterinary medicine and surgery.

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# OSTEOARTHRITIS IN DOGS

## Introduction to condition

Osteoarthritis is a debilitating, painful condition affecting the joints, in which there is progressive destruction of cartilage and degeneration of all joint tissues. Arthritis cannot be cured, but it can be managed very successfully

## Signs and symptoms:

The most commonly recognised signs of arthritis are associated with inflammation of the joints and include:

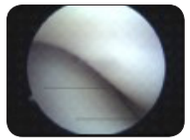
- Stiffness – your dog may seem to walk with a stiff, stilted action, especially after periods of rest. This stiffness will often improve during the day, but recur in the evenings
- Difficulty rising – when your dog has been lying down for long periods he may have trouble standing up
- Lameness – there may be an obvious limp, sometimes several joints are affected and this may make lameness less obvious

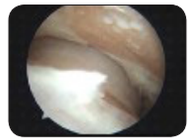
The inflammation associated with arthritis will wax and wane, so signs are often intermittent in the early stages. With long-standing cases there may be additional whole-body signs such as:

- Changes in demeanour (“miserable”)
- Changes in behaviour (to avoid uncomfortable activities)
- Becoming withdrawn
- The most common cause of arthritis in dogs is inappropriate wear and tear of joints that have developed abnormally. For example hip dysplasia: the two xrays below are the hip of the same dog, first with its leg outstretched, secondly in a standing position. In the latter the “ball” moves out of the “socket” and the dog’s weight is no longer evenly distributed across the joint, leading to cartilage damage.

Obesity and inappropriate exercise are the two main factors that exacerbate the disease.

Cartilage does not contain nerve endings, so is insensitive to damage. There can be significant destruction of cartilage by the time your dog shows signs of arthritis. The first photo is of a normal joint, the second shows cartilage damage in a 6 month old labrador’s elbow





Cartilage has a limited capacity for repair and newly formed cartilage lacks the specialisation of normal joint cartilage.

Cartilage damage leads to inflammation in the joint, which causes secondary changes in the joint fluid, and the structures of the joint

## Diagnosis:

Osteoarthritis may be suspected from the signs of intermittent lameness and the joint and breed involved. There may also be a history of previous injury to a joint, for example rupture of the cruciate ligament in the knee joint.

Vets use lots of different ways to diagnose arthritis including:

- Palpation – affected joints are thickened. They may contain excess joint fluid and pressure on the joint will often lead to flinching due to pain
- Manipulation – as the joint tissues become thickened and stiff the degree to which the joint will bend decreases. Bending the joint will also produce a pain response
- Radiography – in the early stages of the disease xrays may show increased volumes of joint fluid. With time subtle changes in the bone are detected and in advanced cases there is marked deformity of the bone surfaces as in this hip joint:
- Joint tap – a sample of the fluid from within the joint can be taken through a needle and examined under the microscope
- Arthroscopy – may occasionally be used to look inside the joint using a special camera.

## Treatment/prevention:

Once begun, osteoarthritis is progressive and irreversible. Because most cases originate from a malformed joint, if your dog is a breed susceptible to arthritis in later life (especially larger breed dogs such as Labradors) controlled, lead exercise should be given and off-lead playing kept to a minimum between the ages of 8-20 weeks, regular controlled exercise will promote good joint development.

However in most cases arthritis is something that will be diagnosed in later life

If arthritis has been diagnosed then there are three main considerations for treatment:

1. Pain relief – osteoarthritis is a painful condition, though the pain is often misunderstood. Not only does it cause pain in the joints but also sends signals back up the nerves to the spinal cord and the brain which in turn then leads to higher pain levels in the joints. This is manifested as behavioural changes – dogs becoming withdrawn and seeming “old”.

   Pain relief, primarily through the use of anti-inflammatory medication, is necessary to control both the pain in the joints and that sensed by the brain and spinal cord.

2. Weight control – obese dogs are more likely to develop arthritis and arthritic dogs are more likely to become obese (through inactivity). The effects of weight are magnified through joints considerably (think of the forces acting through the point of a stiletto heel!), so slimming down to a lean dog will both improve the dog’s comfort and reduce ongoing joint damage.