

Degenerative Joint Disease (DJD)

What is degenerative joint disease?

Degenerative joint disease (DJD) is more commonly known as arthritis. This is a progressive, non-infectious condition of the weight-bearing joints. Normal, healthy joint cartilage is smooth, white, and translucent. It consists of cartilage cells, protein, water, and collagen that form a sponge-like middle. In the early stages of arthritis, the cartilage becomes yellow and opaque and softens to create a rough joint surface. As the disease progresses, the soft areas become worn and expose the hard bone underneath, causing remodeling. This progression leads to osteophytes (bone spurs) in the joint and a decreased blood supply that inhibits cartilage repair. DJD can be caused by aging changes in a joint or by a mechanical instability. Mechanical instabilities are most often the result of joint abnormalities (such as hip or elbow dysplasia), trauma, or wear from a ruptured anterior cruciate ligament, luxating patella, or osteochondritis dissecans.

What are the symptoms of degenerative joint disease?

Most often, the clinical signs of degenerative joint disease (DJD) appear in middle-aged and geriatric patients. They can include stiffness, reluctance to go on walks, and trouble with stairs. As the condition progresses, these symptoms become more severe, sometimes to the extent that the animal will not use the affected limb. Symptoms of DJD are exacerbated by cold, damp weather.

How is degenerative joint disease diagnosed?

Degenerative joint disease (DJD) is diagnosed through a physical examination and X-Rays. Early DJD may only show a decreased joint space, as cartilage is not radio-opaque. Mid- to severe-stage DJD can be seen in the formation of osteophytes and changes in the bone under the cartilage.

How is degenerative joint disease treated?

Treatment of degenerative joint disease is limited to medicinal and physical therapy to reduce the amount of pain in the surrounding ligaments and joint capsule. After routine bloodwork is performed, the patient may be placed on a non-steroidal anti-inflammatory (NSAID) and, in the case of obese dogs, may be put on a prescription weight-loss diet. Corticosteroids may be used in severe cases that do not respond to NSAIDs. The ideal physical therapy for dogs is swimming or the use of an underwater treadmill. Other physical therapy exercises include short walks and passive flexion and extension of the affected joint. Additional treatment options include the use of supplements, such as glucosamine and chondroitin, acupuncture, and electrical pulse therapy.