



CANINE ARTHRITIS

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There are many different types of connections between bones in a body. These connections are called joints. When a joint is altered or injured, it either has occurred suddenly (like after falling on the ice), or has been occurring over a longer period of time (like after running the fence line 100 times daily for 2 years to chase the neighbor's dog).

A joint that is lubricated by fluid is called a synovial joint. Synovial joints are lined with a thin membrane called the synovium that produces the fluid. When a joint is injured the synovium becomes inflamed. "Arthritis" is the term used to refer to the inflamed joint.

When a joint is injured over a long period of time, there is low-grade inflammation and the parts of a joint can undergo dramatic thickening. The term used for the long term change is "osteoarthritis." The prefix "osteo" refers to bone so the term "osteo-arthritis" refers to changes in the bone (including adding bumps or spurs of bone) that support the joint.

When a joint is acutely injured, the synovium thickens and becomes very active, increasing its production of lubricating fluid. Excess fluid collects in the joint within the strong capsule that surrounds the joint. The capsule can become stretched and distended with the fluid, making movement of the joint uncomfortable. We see the uncomfortable joint movements appear as "stiff" limbs or reluctance to use a limb at all, or some degree of lameness.

What causes arthritis? Trauma is very common. Hard compressions ("jarring") and other strong physical stresses to a joint can tear supporting ligaments, crack the cartilage, break the supporting bone, tear the joint capsule and release inflammatory mediators that begin a process in the joint that produces excess fluid, joint distension and pain. If this process is allowed to persist, long term changes begin that will not go away and cannot be taken away.

Infections such as bacteria that travels through the blood, Lyme disease or Rocky Mountain Spotted Fever from tick bites, or immune diseases such as lupus can cause severe reactions in joints and lead to arthritis and pain. Some tumors can also lead to arthritis.

Arthritis is initially treated with rest, icing, and anti-inflammatory medication. The cause of the arthritis is investigated with examination, evaluation of the patient's history, radiographs, and often joint fluid analysis and blood evaluation. Once the cause is known, specific treatment is administered.

Specific treatment to reduce the arthritis may consist of antibiotics, surgery, physical therapy, immuno-suppressive medication, and chemotherapy.

Good physical fitness is the number one preventative against arthritis. Appropriate forms of glucosamine and chondroitin may also be of benefit.