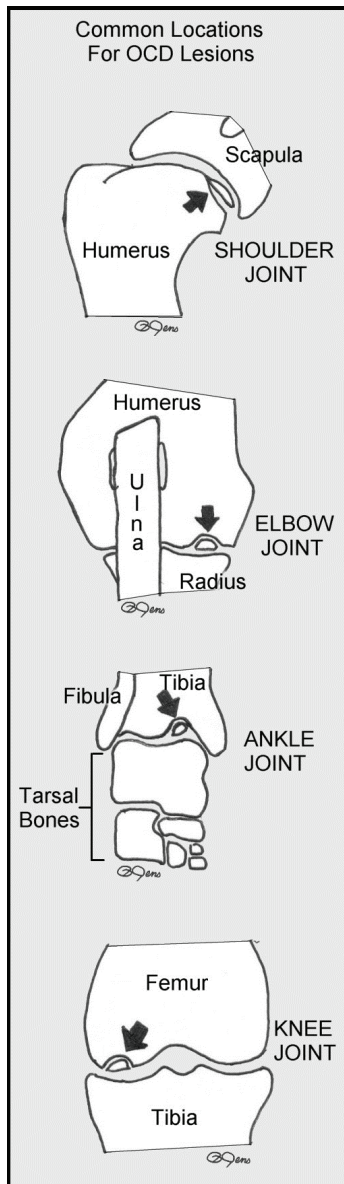


Osteochondritis Dissecans



What is Osteochondritis Dissecans (OCD)?

Osteochondritis dissecans (OCD) is a disease that affects growing articular (joint surface) cartilage and its underlying bone (subchondral bone). Rapid growth of cartilage with failure to ossify (to mineralize and become bone), results in areas where the cartilage becomes abnormally thick without proper support of the subchondral bone. This thickened cartilage will eventually crack and begin to separate from the underlying bone. With continued growth and normal puppy activity, the cracks or fissures enlarge and break free from the underlying bone resulting in a flap of cartilage floating free within the joint. The movement of this cartilage flap and the exposure of the underlying bone to joint fluid results in inflammation, pain, and lameness. Over time, this ongoing irritation causes permanent degenerative changes in the joint (osteoarthritis). OCD is most commonly diagnosed in young, rapidly growing, large-breed dogs, like Bernese Mountain Dogs, Golden Retrievers, and Labrador Retrievers. OCD lesions are most commonly found in the shoulder, but the elbow, ankle, and knee joints can also be affected.

Diagnosis

A diagnosis of OCD is made by taking a thorough history, performing a comprehensive physical examination, and review of x-rays. Dogs typically have a lameness that is localized to a specific joint on orthopedic examination. Pain is often elicited with flexion and extension of the affected joint(s). X-rays show a bone defect beneath the area in which the cartilage flap had separated. Direct visual inspection of the joint with arthroscopy is utilized in most cases prior to corrective surgery.

Treatment options

OCD lesions are treated by surgical removal of all free/loose cartilage flaps/fragments. Degenerative tissue is then removed from within the subchondral bone defect until healthy bone is encountered. This step promotes neovascularization (new blood supply) and filling of the defect with reparative tissue (fibrocartilage). The preferred surgical technique (open surgical vs. arthroscopy) and prognosis are greatly varied depending on which joint is affected and how chronic the condition is.