Osteochondrosis is an abnormal development of the cartilage lining a joint. Cartilage is normally very thick in the neonatal puppy. As the pup grows the deeper layer of the cartilage changes into bone and the final layer of hyaline cartilage becomes thin. In osteochondrosis an area of the cartilage remains thick and loses its supply of nutrients. Traumatic forces on the region of the joint can also lead to this cartilage cracking or loosening and forming a flap (osteochondritis dissecans or OCD). The flap lifts off the underlying bone and creates further irritation and inflammation in the joint. The shoulder joint is comprised of the humerus and the scapula (shoulder blade). When an OCD lesion develops it usually is located along the caudomedial humeral head. A radiograph of the shoulder will reveal a flattened region of the humeral head (Fig 1 - blue arrows).

OCD of the shoulder usually occurs in large breed dogs. Symptoms of OCD usually occur sometime between 4 months and a year of age and include lameness and pain on manipulation of the shoulder joint. Lesions can occur in both shoulders.

**Treatment:** Current treatment involves exploring the shoulder joint either through an incision (Fig 2) or with an arthroscope. Once identified the cartilage flap is removed and then the underlying bone undergoes curettage until the surface begins to bleed. (Fig 3) This new blood supply will allow the defect to heal with fibrocartilage

**Post-op Care:** The dog should be limited in their activity for the first 4 weeks to allow the defect to heal. No running or jumping is permitted. Gradual increase in leash walks and the use of stretching exercises of the joint. Use of anti-inflammatory medication will also help speed recovery.

Prognosis for recovery is good for OCD lesions of the shoulder. Most dogs return back to normal activity. Chronic OCD lesions left untreated or undiagnosed can result in degenerative changes and arthritis.