

Humeral Condylar Fractures

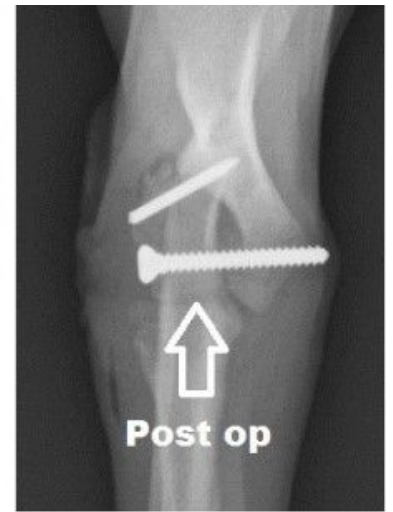
Three bones come together to form the elbow joint: the humerus, radius and ulna. The radius supports 80% of the weight; whereas the ulna supports 20% of the weight. The top of the radius bone is in contact with the outer half of the bottom of the humerus bone (called the lateral humeral condyle) at the level of the elbow joint. Because of this anatomy, the forces that are transmitted through the limb can break off the lateral humeral condyle. Puppies have much softer bones than adults; therefore, more fractures occur in immature dogs. All it can take to sustain this type of fracture is a fall or jump off an elevated surface.

Some adult dogs are also susceptible to developing this type of fracture because their humerus has a soft spot (incomplete ossification). This is potentially caused by a genetic defect; therefore, breeding of affected dogs is not recommended. Breeds that are prone to incomplete ossification of the humerus include pugs, cocker spaniels, Brittany spaniels and occasionally Rottweilers.



Surgery

Because this type of fracture extends into the elbow joint, surgery is essential. Conservative treatment of such fractures with a splint or cast consistently results in a stiff elbow, which impairs the ability of the pet to use the limb. Surgical treatment of a lateral condylar fracture of the humerus must be done soon after the fracture has occurred for the best possible outcome. Your companion's surgeon will make an incision to expose the fracture. Next, the bones are positioned together so that they line up perfectly, and a screw and pin are inserted to stabilize the fracture.



Results

Surgical repair of a lateral humeral condylar fracture is essential for a successful outcome. Surgery offers multiple benefits over other treatments. These include a faster recovery, early use of the limb after surgery, and correct healing of the fracture. Uncommon complications include infection, failure of the fracture to heal, breakage of the metal screw or pin and arthritis of the elbow joint. The result could be arthritis and lameness. Overall, 85% of patients that receive surgery to correct a humeral condylar fracture have very good limb function after recovery.