

# Fragmented Medial Coronoid Process Disease

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## BASIC INFORMATION

### Description

Fragmented medial coronoid process (FMCP) disease is a condition of young, large-breed dogs. FMCP is somewhat unique for a developmental, “juvenile” disease, in that it may not become apparent until the dog is several years old. It is more common in male dogs. It is also called *united coronoid process disease*, *jump-down syndrome*, *elbow dysplasia*, and *medial compartment disease*.

### Causes

FMCP is thought to occur because uneven growth or alignment of the three bones around the elbow (humerus, radius, and ulna) leads to excessive pressure against the larger, medial coronoid process on the inside of the ulna. This uneven growth leads to fragmentation of the coronoid process, pain, arthritis, and lameness. The coronoid is not fractured in the traumatic sense of the word, but it is broken off due to the constant, uneven pressure placed upon it.

### Clinical Signs

The clinical signs are the same as for any joint condition, namely lameness, pain, and joint stiffness after rest that initially improves with activity but then worsens with further activity.

### Diagnostic Tests

Examination of the elbow reveals loss of range of motion and pain with movement of the joint. Muscle shrinkage (atrophy), joint stiffness, and thickening of the joint may be detected. Fluid (effusion) may also be felt in the joint. Direct pressure against the inside aspect of the elbow may cause a painful response.

X-rays often show signs of secondary arthritis but rarely reveal the fragment, because it is surrounded by normal bone, making it hard to see with most angles of the x-ray beam. If (after x-rays) doubt still exists regarding the diagnosis, computed tomography (CT) scanning can be done and has a high degree of accuracy. It is important to identify other developmental diseases in or around the joint as well.

## TREATMENT AND FOLLOW-UP

### Treatment Options

Although some debate exists regarding the best treatment, removal of the fragment and associated unhealthy cartilage is generally considered the best treatment. Fragment removal is ideally done by arthroscopic surgery (through a small fiberoptic viewing scope), but traditional open-joint surgery can also be effective. Medical treatment alone can be tried by administering drugs for arthritis, sometimes with acceptable results.

### Follow-up Care

Dogs that undergo surgery are restricted from full activity for 8 weeks to allow the cartilage in the joint to completely heal. Physical rehabilitation therapy can also significantly improve the function of the elbow following surgery. Medical management (see the handout on **Osteoarthritis: Medical Management**) is pursued aggressively to slow the progression of the osteoarthritis.

### Prognosis

Prognosis for FMCP is generally guarded (uncertain) but varies greatly from dog to dog. Many dogs have some degree of secondary arthritis; in some cases it is severe, and in others it is mild.