



## Australian Shepherd Health & Genetics Institute, Inc



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### Elbow Dysplasia

Elbow Dysplasia (ED) is not a single disease, but rather a set of related defects that are grouped under the term “elbow dysplasia.” If your dog is diagnosed with ED, it may have fragmented medial coronoid process (FCP), ununited anconceal process (UAP), or osteochondritis desicans (OCD). Some dogs diagnosed with incomplete ossification of the humeral condyle are deemed to have elbow dysplasia. The condition arises in the cartilaginous growth plate at the elbow end of the humerus, the bone above the elbow joint when the growth plate fails to harden as it matures. This particular problem seems to be restricted to Spaniel breeds and is probably not be a concern for Aussie breeders. Either or both elbows may be affected. Larger boned and faster growing pups seem more prone to this disease than dog with moderate or light bone or who mature more slowly.

OCD, FCP and UAP all cause stiffness, stilted gait or lameness, usually while the dog is under a year of age and sometimes as young as 4 months. The affected joint will be swollen and painful. There may be atrophy of nearby muscles. Some dogs are subclinical. The only sure way to diagnose ED is with x-rays. If x-rays still fail to reveal a cause for lameness, magnetic resonance imaging (MRI) or arthroscopy may be necessary. Having elbow dysplasia is a risk factor for also having hip dysplasia; the more serious the condition the higher the risk.

OFA uses a single flexed view. European registries use two views, one flexed and one extended, ) because they hold some cases may be missed if only a single view is used.

In symptomatic dogs the joint will degenerate, resulting in diminished range of motion and chronic pain. Early surgical treatment accompanied by weight reduction and restriction of

activity is recommended. Some type of medication may be necessary.

ED is more common than most people are aware. 4% of the dogs in ASHGI's 2009-10 [health survey](#) were affected. ED has been largely disregarded in the breed, even though it may be as frequent as hip dysplasia. The Canine Health Information Center lists it as one of the mandatory screening procedures for our breed.

The inheritance of elbow dysplasia is complex and no specific genes have yet been indicated. It is possible that some or all of the ED defects may be inherited independently though the frequency of the FCP/OCD connection indicates some relationship between them at least in a significant number of cases. OCD is also felt to be the same disease no matter what joint it occurs in, therefore breeders should keep shoulder OCD cases in mind in relation to ED until science gives us better genetic information than is available at present.

The defects are most common in large, heavy-boned or fast-growing breeds, so it is possible that the disease may be to some degree secondary to body morph (which is itself inherited) but not all Dogs with ED fit this profile.

All Aussies intended for breeding should have their elbows screened. Affected dogs should not be bred. Parents and full and half siblings of an affected dog should not be bred close on the pedigree that produced ED or to mates with a family history of ED.

Another thing to consider is conformation. Dogs that are fast-growing, large or heavy-boned for an Aussie may be more prone to OCD in the elbow or shoulder. If your dogs have these traits you will want to select away from them.

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