

Elbow Dysplasia

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What is elbow dysplasia?

Elbow Dysplasia is an inherited disease of the elbow, causing abnormal development of the joint. It is most commonly found in large breed dogs and seems to affect males more frequently than females. It is most commonly a disease of young dogs, but can affect dogs at any age. The OFA breed average statistics can be found at <http://www.offa.org/elbowstatbreed.html>. Unfortunately the Australian and United Kingdom schemes don't publish breed averages but you can obtain this information from your state and national breed clubs.



There are different types of elbow dysplasia but they are all closely related in that they cause the same disease process - osteoarthritic changes in the elbow joint. As mentioned above it is an inherited defect but can be worsened by other environmental factors such as

- diet (excessive weight gain or abnormally fast development in large breed puppies which can put more strain on the bones and joints)
- excessive activity
- trauma

The types of elbow dysplasia are

1. OCD (osteochondritis dissecans) of the medial humeral condyle - this is where cartilage problems develop on the elbow end of the humerus (the long bone in the front leg above the elbow)
2. FCP or fragmented medial coronoid process - the coronoid process is a group of small bones that fuse with the ulna. The ulna and radius are the two bones that support the front leg between the wrist and the elbow. In FCP these processes break off from the ulna.
3. UAP -Ununited anconeal process - the anconeal process is another group of small bones that fuse with the ulna. In this case the process fails to fuse normally.
4. Incongruent elbow/ elbow joint incongruity- this means the bones that form the elbow joint do not fit together properly because they have grown at different rates.

What are the signs or symptoms?

It usually becomes noticeable at about 7-10 months of age and is more obvious when your dog gets up after resting or is beginning to exercise. The signs may be subtle at first but will progress to obvious forelimb lameness and elbow pain - in one leg or both. If this condition is left untreated it will worsen and cause increased pain for your dog - it is best to take your dog to the vet as soon as any pain or lameness is suspected as there are many treatment options available to improve the condition and alleviate the pain.

How is it diagnosed?

Veterinary diagnosis will first involve a physical exam where the vet will manipulate the front legs of the dog and feel around the elbow to locate the tenderness. X-rays will then be required and this will probably need a general anaesthetic to ensure the dog is perfectly still so that accurate, clear X-rays are obtained.

How is it treated?

If the problem is not severe, there are many drug options available that will relieve pain and reduce inflammation in the joint. There are also now 'chondroprotective' drugs available that will help protect the cartilage within the joint and in many cases will help to reverse some of the damage. Medical therapy will also need to be combined with diet restrictions (these dogs do best when kept lean), exercise guidelines (eg. Non-weight bearing activity such as swimming), and even gentle physiotherapy to improve the ability of the surrounding muscles to protect the joints. If medical management of the problem is started early the prognosis is good and your dog can still enjoy good quality of life.

In severe cases the vet may recommend an arthroscopic procedure where they surgically explore the joint to determine if cartilage fragments are worsening the problem. These fragments can be removed surgically which can help normal joint function return when combined with the above medical treatments. In the worst case scenario the joint can be fused surgically which will radically reduce the pain experienced by the dog. This is called elbow arthrodesis.

How can I avoid buying a dog with elbow dysplasia?

Breeding dogs should be evaluated at a minimum of one year of age for elbow dysplasia in Australia and the UK. The Orthopedic Foundation of America has set the minimum age for accurate evaluation at 2 years. More information on this can be found at <http://www.offa.org/edanswers.html>.

Dogs that are graded with abnormal elbows should not be used for breeding. However it is important to know that a dog that does not display lameness may still have elbow dysplasia and be able to pass the condition to its offspring. When discussing the health history of puppies' parents with a breeder, you should determine if they have been screened for elbow dysplasia.

The Orthopedic Foundation of America (OFA) does evaluations in the US. In Australia elbow evaluations are performed by the Australian Veterinarian Association/Australian National Kennel Club Canine Hip & Elbow Dysplasia Scheme. In the UK, the British Veterinary Association provides elbow screening. The standards for these evaluations have been determined by the International Elbow Working Group.