



Message from the Chief Operating Officer

Welcome to the Nov/Dec issue of OFA E*News.

The first issue was distributed to over 15,000 addresses, and the response was overwhelmingly positive.

Despite being in place for over 15 years, the OFA's Elbow Dysplasia (ED) database continues to generate the most questions in terms of both protocol and diagnosis.

In this issue the OFA's Chief of Veterinary Services, Dr. Greg Keller, provides a high level overview.

Additional information regarding ED, including a Frequently Asked Questions section, can be found on the OFA's website,

www.offa.org.
Happy Holidays!

**Eddie Dziuk, Chief Operating Officer,
Orthopedic Foundation for Animals**



OFA Board Member Receives Significant AKC Recognition

Susan LaCroix Hamil is the AKC's 2006 Hound Group Breeder of the Year. Susan has served on the OFA board since 1999. Susan's Quiet Creek Bloodhounds have achieved numerous awards in the ring including a Westminster KC group win, have appeared in major motion pictures, and have served in law enforcement as mantrailers. According to the AKC, Susan is being recognized for her "commitment to excellence, consistency, function and type, both in the ring and the whelping box."

The OFA congratulates Susan on the well deserved recognition, and is honored to have her as part of our organization.



Elbow Dysplasia

by G. G. Keller, DVM, MS, DACVR
OFA Director of Veterinary Services

Elbow dysplasia was first reported in 1961 in dogs with ununited anconeal process (UAP) and degenerative joint disease/osteoarthritis (DJD/OA) of the elbow joint. A subsequent publication reported on similar degenerative changes without ununited anconeal process. Later research identified fragmented or malformed medial coronoid process (FMCP) and osteochondrosis (OCD) of the medial humeral condyle as also contributing to elbow DJD/OA.

In the late 1980s an international consortium of veterinarians, researchers, and knowledgeable dog breeders concerned over the breed prevalence of elbow dysplasia formed the International Elbow Working Group. The IEWG established the requirements for the internationally standardized screening procedure for elbow dysplasia in the dog. The mediolateral projection with the elbow flexed to visualize the anconeal process was required. Additional views such as the cranial caudal, cranial lateral-caudal medial oblique, and neutral lateral were recommended, especially in dogs less than 24 months of age.

The radiographic diagnostic protocol was based on the presence of degenerative joint disease/osteoarthritis and/or any specific inherited disease; ununited anconeal process, osteochondrosis of

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October Champion of Health, "Flynn," Ch. Déjà Vu In Like Flynn CD PT HOF ROMPX

the medial humeral condyle, and fragmented or malformed medial coronoid process. The grade of elbow dysplasia (1, 2 or 3) was based on the degree/severity of DJD. In most dogs reported with elbow dysplasia based solely on DJD/OA there is malformation or pathology involving the medial coronoid process.

The Orthopedic Foundation for Animals (OFA) initiated an elbow dysplasia database in 1990. The OFA Board of Directors elected to follow the IEWG guidelines requiring the flexed mediolateral view of each elbow. This view on dogs at least 24 months of age is extremely effective in revealing the presence of DJD/osteoarthritis in affected dogs. Also, this single view is the most cost effective method when mass screening dogs for elbow dysplasia.

If the dog owner or veterinarian elects to obtain and submit the additional views they would be evaluated by the OFA radiologists and in affected dogs increase the likelihood of identifying the specific inherited disease that resulted in the presence of DJD/OA.

However, the elbow is a complex joint with overlapping osseous structures which often make a definitive diagnosis difficult especially when dealing with pathology involving the medial coronoid process. Linear tomography, computerized tomography, and surgical exploration of the elbow increase the probability of a definitive diagnosis, but these methods are costly and in the case of surgery, invasive.

A sampling of breeds at risk for elbow dysplasia (range 1.5 to 40.9) in which at least 100 individuals have been evaluated as of 12/31/05 are listed above.

Breed	Total	% Dysplasia
Akita	1,283	1.5%
Australian Shepherd	1,975	4.3%
Bloodhound	662	15.9%
Bernese Mountain Dog	6,725	29.5%
Chinese Shar Pei	206	28.6%
English Setter	1,611	15.5%
German Shepherd Dog	23,088	19.6%
Golden Retriever	14,295	11.5%
Labrador Retriever	33,094	11.5%
Newfoundland	3,744	25.3%
Rhodesian Ridgeback	2,863	6.2%
Rottweiler	9,407	40.9%

There are multiple studies supporting the theory that the various components of elbow dysplasia have a polygenic mode of inheritance and that environmental factors contribute to the expression of the disease. In 1965, Corley reported on the inheritance of UAP. There are a number of papers reporting on the inheritance of OCD and FMCP. There is a recent report by Padgett where an initial breeding pair of Labrador Retrievers had surgically confirmed OCD and FMCP in both elbows. The male dog was subsequently bred to two of his first and second

generation daughters. There was a total of 31 progeny produced of which 89.9% had OCD, FMCP or both.

Swenson reported on a study which included 4,515 dogs registered by the Swedish Kennel Club. As selective pressure was applied toward identifying and breeding dogs with normal elbows, there was a corresponding increase in the percentage of normal progeny.

An extraction from the OFA database yielded a total of 51,340 progeny where both parents had elbow evaluations. The percentages of progeny with elbow dysplasia more than doubled if either parent had elbow dysplasia, and more than tripled if both parents had elbow dysplasia, as compared to when both parents were normal.

Normal X Normal = 40,563 progeny; 11.5% affected with elbow dysplasia

Normal X Dysplasia = 9,740 progeny; 23.7% affected with elbow dysplasia

Dysplastic X Dysplastic = 1,037 progeny; 43.6% affected with elbow dysplasia

OFA recommends that dogs from breeds at risk for elbow dysplasia be screened prior to breeding or before incurring expenses associated with showing, performance or field training.



November Champion of Health, "Kovu," Ch. Caraway Celebrate Life

CHIC Welcomes New Breeds

Otterhounds, Basset Hounds, Irish Wolfhounds, Chihuahuas, Ibizan Hounds, Tibetan Mastiffs, German Shorthaired Pointers, and German Pinschers.

CHIC, the Canine Health Information Center, is a database of consolidated health test results from multiple sources. It is jointly sponsored by the OFA and the AKC Canine Health Foundation. Parent clubs determine a breed's specific requirements. More than 80 parent clubs are currently participating. Dogs meeting all the health screening requirements are issued CHIC numbers. For more information on CHIC, please visit the CHIC website at www.caninehealthinfo.org.

