



The American Brittany Club

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Penn Hip vs OFA

by Gordon Theilen, DVM

There has been good discussion about value of Penn Hip and that of OFA. I would like to emphasize a few important aspects for all to remember in their breeding programs. Some of the following has already been said and given here as important points to remember.

1) Penn Hip measures hip laxity not dysplasia which also is called arthritis. Young dogs are radiographed under sedation and pressure is applied to attempt to move the head of the femur out of the pelvic joint socket that is held in place by the central round ligament. Then radiographs taken are sent to University of Pennsylvania, College of Veterinary Medicine and radiologists there rate the hips (Penn Hips) using a distraction index formula and determine the quotient up to 1. The ratings vary for each breed and usually a 0.4 or higher rating is undesirable. Dogs with a high fraction will be AFFECTED DOGS and show lameness. I have forgotten the desirable fraction for the Brittany, but it is around 0.4 or lower. The Penn Hip procedure does not harm the pup. If there is a hip joint laxity of 0.4 or more it was genetic and not caused by the procedure. Gene markers have been found for hip laxity in some breeds and the left hip joint has a higher percentage of frequency than the right hip. Laxity is under genetic control and not the same as canine hip dysplasia (CHD). Some dogs with CHD occur concurrently with those that have hip laxity, but the two are genetically separate entities.

2) Canine hip dysplasia are bone changes that start from embryonic life (under genetic control) and may not be detected for years, but up to 95% are detected by 2 years of age, the time that Orthopedic Foundation for Animals (OFA) certifies hips and elbows with radiographs. Most dysplastic hips can be detected by 6 to 8 months of age, upwards of 85 to 90% occur by that age. Thus, it is recommended to have hip preliminaries done early about 6 months of age and before 2 years of age. A dysplastic pup at 6 months will never have good hips at a later age. Another value of OFA is knowing families being free or at very low frequency for CHD for up to 3 generations including not only sire/dam, grandsire/grandam, and great grandsire/great granddam but also related relatives, sibs, cousins, aunts, uncles etc. This helps establish frequency of CARRIER DOGS. It is generally obvious which dogs are dysplastic, however, CARRIER DOGS are normal and may be categorized as excellent, good or fair. Excellent does not necessarily mean there is less chance for being a CARRIER, it only means that dog has excellent hips, not genetically free of CARRYING CHD.

3) Dogs that are Pen Hip with a low distraction index and OFA normal can still be CARRIERS. Dogs with normal hips can still be CARRIER DOGS. The condition that so many neglect to know about or recognize. CARRIERS are the key to riding unwanted genes from the population. The only real way to effectively do this is by open registry and or OPENNESS by all breeders. Brittany owners and breeders should consider as a breed club becoming members of Canine Health Information Center (CHIC). The mission: to provide a source of health information for owners, breeders, and scientists, which will assist in breeding healthy dogs. CHIC is an organization that works together with OFA and AKC Canine Health Foundation. As of September 2004 over 30 parent breed clubs had become members of CHIC. You can find out more about CHIC by seeing or .

4) To find CARRIER DOGS one can do this by carefully keeping records and being aware of the health and or unhealthy condition of offspring from dogs you wish to purchase a pup or breed for a litter. Fortunately we now have at our disposal modern technology as well to combine with the art of breeding.

5) DNA profile of your dog and family of dogs can help find CARRIER DOGS. UCD, School of Veterinary Medicine, Division of Canine Genetics will send DNA swabs free of charge to any Brittany owner desiring to have their dogs entered into the Brittany DNA Bank. It will take thousands of samples to have an effective DNA Bank. Many persons across the Nation are now collecting and aiding Scientists at UCD develop this Bank. Laboratory personal are desirous of ABC becoming members of CHIC and together we hopefully will find CARRIER DOGS for not only hips and elbows but for a myriad of other health and trait problems. It also will be a repository for documenting and maintaining wanted health and traits. Contact kathryn Robertson < krobertson@ucdavis.edu> for swabs. For serious questions on genetics contact Mark Neff PhD < mwneff@ucdavis.edu>, in charge of Brittany DNA Studies or for lesser technical questions contact me. Please let me know as chairman of the Health Aspects and Genetic Defects Committee of ABC whether we should pursue membership as a parent club in CHIC.

6) CARRIER DOGS can not easily be found using DNA unless there are thousands of samples at the scientist disposal.

7) MAINTAINING GENETICALLY STRONG DOGS can not easily be documented without thousands of DNA samples.

We as a breed are extremely fortunate to have the Brittany DNA Bank established at UCD, few breeds have such an opportunity. This was all made possible by the Marvin D. Nelson Jr. Memorial Fund established in 2004 by ABC. Of the \$30,000 so far donated, none of the monies have been spent, all have been banked until the Fund substantially grows hopefully to 1/2 to one million dollars. Thus, donations are always needed, so we as Brittany owners can say we have contributed directly to finding genetic make up for maintaining genetically strong breeding stock or for finding CARRIER DOGS for unwanted health problem or traits and develop breeding strategies to handle the unwanted. This type of research is very expensive and we must develop more ways to help pay for needed research. For donations see Trust this helps all appreciate what CARRIER DOGS are all about and why they are the nemesis in all good breeding programs to maintain and better the breed.

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