IDASH Pedigree Analysis

This service has its roots in the private pedigree analysis service ASHGI President C.A. Sharp first offered in the early 1990s, initially for Collie Eye Anomaly and later for a broad range of hereditary diseases and disqualifying coat colors.

The service, now a part of the International Directory for Australian Shepherd Health (IDASH), utilizes both the public data available through the IDASH Open Health Database (OHD) but a large collection of confidential data as well.

OHD data comes from publicly available sources, like the OFA and European club and kennel club databases plus documented information voluntarily submitted by dog owners and breeders. The confidential database includes data collected before the advent of the OHD or which people opted not to list in the OHD.

Pedigree analysis reports are created only upon presentation of proof of ownership of the dog or litter being analyzed. It does not contain detailed information about specific dogs in the pedigree.

IDASH Pedigree Analysis Reports include a 10-generation coefficient of inbreeding (COI) for the dog plus risk scores for health, dental and color traits. COI, a measure of inbreeding, is calculated over ten generations. Risk scores, calculated to 5 generations, are on a 0-10 scale, with 1-2 being low risk, 3-4 moderate, and 5-10 high. Since we are largely dependent on voluntary submissions, our database cannot reflect every incidence of a given trait. Therefore, risk scores may be to some degree understated. Zero scores are listed as "NKB" for no known background. NKB indicates either that the dog or its parents have DNA-tested clear for that particular trait or that we have no data for the trait on dogs in this pedigree going back to the 5th generation. Scores are calculated for over two dozen traits. The list may change from time to time based on fluctuations in disease frequency, new knowledge of diseases, or availability of DNA tests.

Trait scores *are not* a probability prediction. They are based on a modified percentage of ancestry calculation, indicating the amount of background for the trait in the pedigree, weighted by how often and how far back it is found as well as the degree of connection an ancestor has to a given trait. For a fuller explanation of how the scoring is done see our website.

Dog owners should not assume that the results will predict what diseases a dog may have during its life. Scores are an indicator of whether the dog is likely to carry genes for various traits. While scores might give an indication of the dog's family health history, owners would do better to get specific information on individual dogs in the pedigree from the breeders and owners of those dogs or via the OHD than to assume a score comes from a particular ancestor.

Pedigree analysis is most useful for breeders. The scores provide a consistent method by which you can compare pedigrees and determine whether two dogs are a complementary for the traits listed. Every dog has some level of potential for some health issues so seeking dogs with all zero scores is fruitless. The scores are a tool to help reduce risk of producing unwanted traits through informed breeding decisions. A score of 3 or higher is reason for concern. Try to avoid crosses that score in excess of 5 for any serious disease. (A litter's scores will not exceed an average of the parents' scores.) If there is a DNA test for a trait that scores 2.5 or more the test should be done so you will know the dog's genotype for that trait.

ASHGI includes an average score for each trait based on cumulative pedigree analysis data. We also list the variance between the dog's score and the average. When he average score for a trait is 4 or above if your dog exceeds the average try to reduce the scores for puppies to below the average. However, the higher the average score the more difficult it will be to find suitable dogs with low or moderate risk scores; it may require multiple generations of careful crosses to bring those scores down. If multiple traits are a concern in any particular dog, you are unlikely to be able to reduce risk on all of them while still selecting for other desired traits. The higher risk traits should be prioritized based on their health impact.

To obtain pedigree analysis on dogs that you own, click on the IDASH logo on our website (above) and then on "Request Pedigree Analysis."