

Genetic Testing For Mixed Breed Pets

The words "genetic testing" and the determination of what breeds were in the genetic components of "mixed breed dogs" were rarely found in the same sentence. All of our genetic tests were essentially aimed at determining diseases that were prevalent within particular breeds with the primary aim of making subsequent generations healthier. A question frequently asked is: "Why test a mutt who shouldn't be bred in the first place, and what tests would you run even if you wanted to?"

It is notoriously difficult to determine the heritage of a mixed breed dog unless the mating was witnessed. However, this doesn't stop veterinarians, shelter personnel, friends and family from guessing. However, what we call a lab/pit mix might very well be a boxer/Australian shepherd cross.

Things have changed recently with the advent of DNA dog breed analysis. Several companies have come up with their own systems, but they all operate on similar principles. You gently swab the inside of your dog's cheek to remove loose cells that contain DNA. The swab is then sent to the lab where the DNA is extracted and compared to a database of samples from a long list of dog breeds. The closest matches are your pet's nearest relatives. The tests aren't perfect, all breeds of dogs aren't represented in each of the companies' databases for example, but the results are more reliable than a guess based solely on a dog's appearance or behavior.

Curiosity is the primary reason most pet owners run this test. It is very interesting to be able to answer "what type of dog is that" with a reasonable degree of certainty, rather than making

guesses which may be false.

From my point of view as a practicing veterinarian, I welcome the information as a way to predict what health problems could be in store for my mixed breed patients. For example, both German Shepherd dogs and Golden Retrievers are at risk for a congenital disease which affects the formation and degeneration of their hips called Hip Dysplasia. If I knew in advance that that your dog was primarily a mix of these two breeds, this disease would be on our radar screen as he ages. Individual variation and the complexities of genetics make these types of predictions imperfect, however, if you want to know what your dog "is" anyway, you might as well do a little research into how his genetics could affect his health. This information could then be used to determine which tests would be advised as he or she ages, which diets would be most beneficial and which disease entities your companion pet might be more vulnerable to.