

Pre-Breeding Health Screening & Testing for Dogs

Heritable diseases can affect any dog, purebred or not. However, certain dog breeds are more susceptible to specific health issues. Limiting the gene pool to produce dogs with certain traits increases the risks of some conditions.

By testing dogs before breeding, you can reduce the impact of these conditions. Pre-breeding testing helps you make informed decisions. It can also prevent unnecessary limiting of your breeding pool.

Which tests do my breeding dogs need?

Here are three ways to find out which pre-breeding tests your dogs may need, based on their breed.

1. Many breed clubs list health testing recommendations on their websites.
2. The Orthopedic Foundation for Animals (ofa.org) shares recommended tests by breed. <https://ofa.org/diseases/>
3. Your veterinarian can help you figure out pre-breeding health screening.

What types of tests are there?

Phenotypic tests



include a physical examination by a veterinarian or veterinary specialist. They may include x-rays, heart tests, blood testing, or eye exams. These tests are necessary when there isn't an identified gene for a condition, the condition is the result of several genes (polygenic), or the condition tends to appear late in life.

Genetic tests



determine the presence or absence of a gene variant known to increase the risk of a disease. You take a simple cheek swab and send it to a laboratory for processing. The test will tell you whether a dog is clear, has one, or two copies of genetic variants.

I have my dog's test results – now what?

Your veterinarian can help you interpret your breeding dogs' testing results. They can also help you understand the risks of producing offspring from a specific pair of dogs. The goal is to prevent the unnecessary creation of dogs who will inherit painful or otherwise harmful conditions. Most direct-to-consumer genetic testing companies also have counselors on staff. They can help you understand your test results.

Registering test results

The Orthopedic Foundation for Animals is a non-profit organization. The OFA has a database of registered health test results from thousands of dogs. Breeders can share information about their breeding dogs in this registry. Puppy buyers can research breed-specific health and learn more about a puppy's parents. Veterinarians and scientists also use this data for research and to track the prevalence of conditions in various dog breeds.

Registering your results with OFA is optional, although membership in some breed clubs may require it. There is a small fee in most cases, which further supports the OFA's work. When you register your test results, it shows your commitment to dog health. It also makes it easier for your puppy buyers to see what testing you have performed on your breeding dogs.

Useful Links for Health Screening

For more information on breed-specific screening recommendations <https://ofa.org/diseases/>



Eye disease

For more information <https://ofa.org/diseases/eye-disease/>

To find a Veterinary Ophthalmologist <https://www.acvo.org/ophthalmologist-search>



Cardiac Disease

For more information <https://ofa.org/diseases/cardiac-disease/>

To find a Veterinary Internal Medicine Specialist (Cardiology, Neurology, Nutrition, Oncology, Internal Medicine): <https://www.vetspecialists.com/specialties/small-animal-internal-medicine>



Respiratory Function

For more information <https://ofa.org/diseases/rfsgs/>



Patellas

For more information <https://ofa.org/diseases/patellar-luxation/>



Hip Dysplasia

For more information about OFA screening <https://ofa.org/diseases/hip-dysplasia/>

For information about PennHip screening <https://info.antechimagingsservices.com/pennhip/>



Elbow Dysplasia

For more information <https://ofa.org/diseases/elbow-dysplasia/>

DNA testing companies

Animal Genetics <https://animalgenetics.com/>

Canine Health Check <https://www.caninehealthcheck.com/product>

Embark <https://embarkvet.com/breeders/>

GenSol Diagnostics <https://www.gensoldx.com/breeder/>

Paw Prints Genetics <https://www.pawprintgenetics.com/>

PennGen <https://www.vet.upenn.edu/research/academic-departments/clinical-sciences-advanced-medicine/research-labs-centers/pennngen/pennngen-tests>

Orivet <https://www.orivet.com/>

UC Davis https://vgl.ucdavis.edu/tests?field_species_target_id=231

U of Minnesota <https://vetmed.umn.edu/research/research-labs/canine-genetics-lab/canine-genetics-testing>

U of Missouri <https://cvm.missouri.edu/research/canine-genetic-disease-network/>

Wisdom Panel <https://optimal-selection.com/>

