



***Have you heard your friends talking about getting their dog CERF'd? See your pup's breeder post on Facebook about getting OFAs done for their breeding dogs? Have no idea what they are talking about? Thinking about breeding your dog and want to make sure you are doing the best you can to produce healthy, happy puppies? This article aims to help simplify the current recommended health tests and registries for the Staffordshire Bull Terrier.***

***All health testing is aimed at screening your dog for the more commonly found health issues that are genetically passed from parents to offspring or that are present in the breed and could affect the health and well-being of your pet. For 2017, it is recommended that Staffords be screened for hip dysplasia, DNA tested for L2HGA & Hereditary Cataracts and have a board-certified ophthalmologist perform an eye exam to clear from inherited or sight-limiting eye disorders (like corneal dysplasia or PHPV). For those seeking a higher and more thorough screening, testing is readily available for elbow dysplasia, luxating patellas, cardiac clearance, degenerative myelopathy and coat color inheritance.***

***Testing methods vary but are typically performed by an experienced veterinarian or veterinary specialist, with the exception of DNA testing which can be completed and submitted by the owner.***





## RECOMMENDED SCREENING FOR STAFFORDSHIRE BULL TERRIERS:

**\*\*O.F.A. (Orthopedic Foundation for Animals)** is a research and data collection organization founded in 1966 that maintains a searchable, public database of health testing results.

**\*\*PennHIP:** a radiographic screening method for hip evaluation that measures and quantifies canine hip joint laxity. Results are reported in percentiles as compared to the database of other individuals within the breed.

**\*\*CHIC (Canine Health Information Center)** is a centralized health database sponsored by OFA that works with parent breed clubs to determine a recommended protocol for screening breeding dogs. Currently, to become CHIC registered Staffordshire Bull Terriers.

### Screening for Hip dysplasia

Hip dysplasia is a condition involving an abnormal formation of the hip socket and is degenerative in nature. Affected dogs may develop weakness, lameness and arthritis involving the hip joint. Milder cases may be maintained with diet, exercise and physical therapy, while more severe cases may require surgery to alleviate painful symptoms. Hip dysplasia is considered to be an inheritable disease with multiple genetic influencers. OFA ranks the Staffordshire Bull Terrier at #60 out of 183 listed breeds with a reported incidence of hip dysplasia at 10%.

Screening for hip dysplasia requires radiographs (X-rays) to be performed by an experienced veterinarian that will be submitted to either OFA or PennHIP for interpretation. PennHIP may be done at any age after 16 weeks. Dogs must be 24 mths of age or older to submit for a final OFA rating.

Both OFA and PennHIP require precise radiographic technique and positioning that starts with placing the dog to on their back upon the X-ray table. The hind legs are fully extended and knees rotated to ensure proper alignment of femurs for best viewing of hip joint conformation. This positioning can be difficult for veterinary technicians physically and quite uncomfortable for a heavily muscled breed like the Staffordshire Bull Terrier. Light sedation is often recommended (or required) for patient comfort and compliance.

OFA submissions are reviewed by three randomly chosen board-certified radiologists using 9 different evaluation criteria. PennHIP looks at 3 different radiographic views to compare laxity, compression and extension of the hip joint against breed 'normals'.



### **Eye screening (OFA Eye Certification Registry/CAER - formerly CERF)**

Screening for congenital/inherited eye issues differs greatly from a general eye exam done by your primary veterinarian. This focused exam should be performed by board-certified ophthalmologist (DACVO) and uses indirect ophthalmoscopy and slit lamp biomicroscopy. The pupils are dilated to allow for proper evaluation of lens and retina of the eye. This exam screens for glaucoma, eyelid/eyelash abnormalities, cataracts, diseases of the cornea and iris, PHPV (persistent hyperplastic primary vitreous) PHA and retinal dysplasia, as well as multiple other possible inheritable eye disorders. It is currently recommended to screen puppies between 8-12 weeks for congenital issues and PHPV, then again after 12 months of age/before breeding and (ideally) once yearly thereafter.

General anonymous data is submitted to OFA for data collection, owners may submit results for public record and registry with OFA/CHIC.

### **DNA screening for L2HGA and Hereditary Cataracts (SBT type)**

L2HGA is a devastating inherited neuromuscular disease affecting the Staffordshire Bull Terrier which causes a failure in breakdown of L-2-hydroxyglutaric acid. This causes symptoms such as weakness, ataxia, seizures, behavior issues, tremors, muscle cramps and dementia. Hereditary Cataracts have been identified as an inheritable condition in the Staffordshire Bull Terrier since the 1970s. Cataracts form on the posterior or back side of the lens, becoming progressive and sight-limiting with advancing age. Thankfully, we have DNA tests available to screen for both disease processes. Using a small cotton swab provided by the testing company, a saliva sample is submitted that will screen for the chosen condition and will pronounce your dog clear (100% free of the disease and unable to pass the gene to offspring), carrier (unaffected by the disease but potentially able to pass the gene to offspring) or affected (has the disease and can pass the gene to offspring). Breeding dogs are often classified as 'clear by parentage' based on their sire and dams results or family history, but it is preferable to DNA test for definitive results before breeding. DNA screening is simple and rather inexpensive. Breeders can use these results to make more informed breeding decisions as identified carriers could still be included in the breeding pool, as long as they are bred judiciously to DNA clear partners. Results can be posted to OFA/CHIC for recording to database.

**Other valuable screening:**

There are many potentially inherited issues currently affecting purebred and mixed breed dogs. There are quite a few that are 'not a problem in SBT'...well, until it IS a problem. Testing routinely for common canine (vs strictly SBT issues) shows puppy buyers that you are using all available resources to ensure their puppy is as healthy as possible. Many Stafford breeder have chosen to 'go the extra mile' and screen breeding and performance dogs for the following:

**Cardiac screening** - Cardiac exam done by board-certified cardiologist (DACVIM) that screens for early-onset degenerative valve disease, cardiomyopathy or inherited arrhythmias. Heart disease was cause of death for 11% of Staffordshire Bull Terriers reported in the 2017 Stafford Health Survey.

**Patellar Luxation** - Deviation/displacement of kneecap. Typical more common in smaller/medium breed dogs, but reported occasionally in the Staffordshire Bull Terriers.

**Degenerative Myelopathy (DM)** - degenerative spinal cord disease causing progressive loss of coordination and eventual paralysis. DNA testing available to the Staffordshire Bull Terrier for one the most common variant of this disease.

**Thyroid screening** - Hypothyroidism (underactive thyroid) is a common metabolic disorder in all canines. Screening is done via blood test performed by your veterinarian and submitted to OFA through a participating laboratory.

**Resources:**

Email [kelly.cromwell72@gmail.com](mailto:kelly.cromwell72@gmail.com)

- SBTCA Health Committee Chair and TSK Health Editor

OFA: [www.ofa.org](http://www.ofa.org)

CHIC: [www.caninehealthinfo.org](http://www.caninehealthinfo.org)

PennHIP: [www.pennhip.org](http://www.pennhip.org)

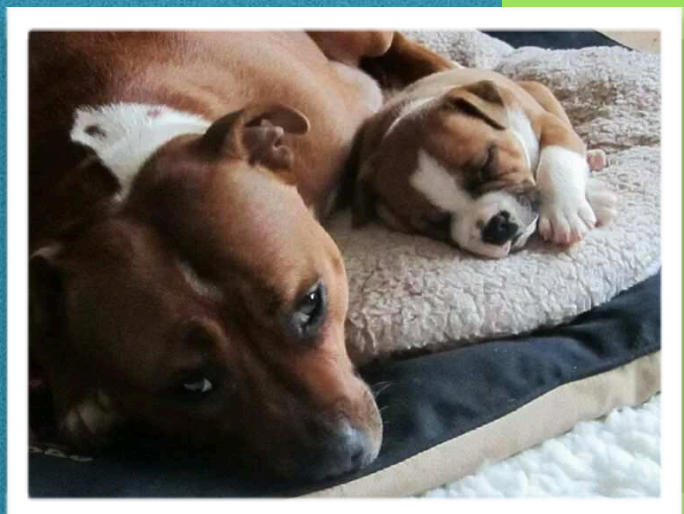
Eye Care for Animals: [www.eyecareforanimals.com](http://www.eyecareforanimals.com)

CVCA - Cardiac Care for Pets: [www.cvcavets.com](http://www.cvcavets.com)

VetGen (DNA testing): [www.vetgen.com](http://www.vetgen.com)

Paw Print Genetics (DNA testing):

[www.pawprintgenetics.com](http://www.pawprintgenetics.com)





### **Current SBTCA Breeder Code of Ethics:**

**BREEDING** should only be considered:

A. With the intention of producing Staffords who are physically and mentally sound, of the proper temperament, and within the desired type and characteristics inherent to the breed as described in the official Staffordshire Bull Terrier breed standard.

B. When the breeding stock has been selected based upon the breed standard, merit of the individuals, genetics, pedigrees, and when every reasonable attempt has been made to determine that the dogs selected are in the best health, temperamentally sound and free of any serious inheritable genetic disease or defect including but not limited to: L-2-Hydroxyglutaric Aciduria (“L-2-HGA”), Hereditary Juvenile Cataracts (“HC”), Persistent Hyperplastic Primary Vitreous (“PHPV”), and Posterior Polar Subcapsular Cataracts (“PPSC”)

The SBTCA encourages breeders to screen litters for PHPV before placement as it can be detected as early as 6 weeks of age.

C. When the breeder is in the position to offer proper care to the dam and the litter. Suitable homes are not always readily available, therefore the breeder must be committed to long term care and be able to provide the additional facilities needed for the physical and emotional development of the puppies.

D. Breeder must be prepared to ensure to the best of their ability that no stud dog or brood bitch owned by them is bred to any dog or bitch whose owner is directly or indirectly involved with any dog broker, puppy mill, pet shop that retails dogs, auctions, litter lot sales, or any other commercial enterprise whose business is involved in these activities.

The SBTCA Strongly Recommends

E. That all puppies are micro-chipped before they leave the breeder's house, with the breeder on the paperwork as an alternate contact.

F. That all breeding stock is DNA tested for L-2-Hydroxyglutaric Aciduria (L2-HGA) and Hereditary Juvenile Cataracts (HC) as well as having a current CERF clearance (within a year) before being bred.



## HEALTH TESTING INFORMATION

Remember, if you choose to breed from a carrier you must test the entire resulting litter to determine clears & carriers. Thus if you choose to keep a carrier from that litter, the same must be done for each subsequent litter resulting from breeding carriers. If you sell carrier pups, please consider spay/neuter so that more carriers are not produced. With the advent and ease of genetic testing, many of these diseases could be eliminated by only breeding clear to clear. To use a known carrier requires an extra step of responsibility. **There is no excuse to breed an untested dog.**

### **Animal Health Trust** (L2HGA, HC, Genetics research, Diagnostics)

<http://www.ahtdnatesting.co.uk/>

Lanwades Park

Kentford

Newmarket

Suffolk, CB8 7UU

p [01638 555621](tel:01638555621)

email: [dnatesting@aht.org.uk](mailto:dnatesting@aht.org.uk)

### **Paw Print Genetics** (L2HGA, HC & Degenerative Myelopathy)

[www.pawprintgenetics.com](http://www.pawprintgenetics.com)

220 E. Rowan

Suite 220

Spokane, WA 99207

p [509-483-5950](tel:5094835950)

### **VetGen** (L2HGA, HC, Degenerative Myelopathy, Coat Color Testing)

[www.vetgen.com](http://www.vetgen.com)

3728 Plaza Drive - Suite 1

Ann Arbor, MI 48108

p [734-669-8440](tel:7346698440)

email: [vetgen@vetgen.com](mailto:vetgen@vetgen.com)

### **Animal Genetics US** (HC)

[www.animalgenetics.us](http://www.animalgenetics.us)

### **Animal Genetics Europe** (HC)

[www.animalgenetics.eu](http://www.animalgenetics.eu)

### **Orthopedic Foundation for Animals**

\*Searchable database for test results: cardiac, CAER/eye, patellas, hips, elbows, DNA

\*Links to test information and submission applications

\*Breed statistics

\*Calendar of testing clinics

[www.ofa.org](http://www.ofa.org)

### **CHIC** (Canine Health Information Center)

[www.caninehealthinfo.org](http://www.caninehealthinfo.org)



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### **OTHER TESTING FACILITIES FOR L2-Hga and/or HC:**

FRANCE: [www.antagene.com](http://www.antagene.com)

CZECH REPUBLIC: [www.genomia.cz](http://www.genomia.cz)

GERMANY: [www.laboklin.de](http://www.laboklin.de) / [www.laboklin.co.uk](http://www.laboklin.co.uk)

SOUTH AFRICAN VETERINARY ASSOCIATION (SAVA): [www.sava.co.za](http://www.sava.co.za) Tel: 012 345 1150

AUSTRALIAN VETERINARY ASSOCIATION: [www.ava.com.au](http://www.ava.com.au)

NEW ZEALAND VETERINARY ASSOCIATION: [www.nzva.org.nz](http://www.nzva.org.nz)

SWEDISH VETERINARY ASSOCIATION: [www.svf.se](http://www.svf.se) Email: [kansli@svf.se](mailto:kansli@svf.se) Tel: +46-8-545-559-20

\*NOTE: A Board Certified Cardiologist must perform all Cardiac exams.

A qualified licensed Veterinarian can provide X-Ray films for hips, elbows and Patella.

Coat color testing for those wishing not to produce blues, dilutes or black and tan (tan pointed markings in any color or pattern) can be found at many labs worldwide now including [VetGen](#), [PawPrint Genetics](#) & [DDC Veterinary Labs](#) in USA.

\* NOTE: a CAER or PHPV test done by a canine ophthalmologist is NOT the same test as the DNA test for HC - BOTH tests should be carried out

\* For DNA parentage testing please contact American Kennel Club in USA