



## Customer & Pet Information

Call Name	Bruno	DOB	Dec. 29, 2022
Registered Name	Bruno of Hanson Hill	Registration #	-
Breed	English Springer Spaniel	Tattoo	-
Sex	Male	Microchip	985141005230475
Owner	Jennifer Hanson	Laboratory #	411133
		Report Date	March 1, 2024

WT:  wild type (normal) M:  mutant Y:  Y chromosome (male)

## Breed Profile

Disease Name	Genotype	Interpretation						
Acral Mutilation Syndrome	WT/WT	<input type="button" value="Normal (Clear)"/>						
Degenerative Myelopathy	WT/WT	<input type="button" value="Normal (Clear)"/>						
<table border="1"> <tr> <td>Degenerative Myelopathy (Bernese Mountain Dog Variant)</td> <td>0</td> <td></td> </tr> <tr> <td>Degenerative Myelopathy (Common Variant)</td> <td>0</td> <td></td> </tr> </table>			Degenerative Myelopathy (Bernese Mountain Dog Variant)	0		Degenerative Myelopathy (Common Variant)	0	
Degenerative Myelopathy (Bernese Mountain Dog Variant)	0							
Degenerative Myelopathy (Common Variant)	0							
Familial Nephropathy (English Springer Spaniel Type)	WT/WT	<input type="button" value="Normal (Clear)"/>						
Fucosidosis	WT/WT	<input type="button" value="Normal (Clear)"/>						
Glycogen Storage Disease VII, PFK Deficiency	WT/WT	<input type="button" value="Normal (Clear)"/>						
Intervertebral Disc Disease Risk Factor and Chondrodystrophy (CDDY with IVDD)	WT/WT	<input type="button" value="Normal (Clear)"/>						
Mammary Tumors (English Springer Spaniel Type Risk Factor)	WT/WT	<input type="button" value="Normal (Clear)"/>						
Progressive Retinal Atrophy, Cone-Rod Dystrophy 4	WT/WT	<input type="button" value="Normal (Clear)"/>						

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## Coat Colors & Traits

Trait Name	Genotype	Interpretation
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<b>A Locus (Agouti)</b>	<b>a<sup>t</sup>/a<sup>t</sup></b>	<b>Tricolor, black and tan</b>
<b>A<sup>s</sup> Locus (Saddle Tan)</b>	<b>N/A<sup>s</sup></b>	<b>Saddle tan/creeping tan (non saddle tan carrier)</b>
<b>B Locus (Brown)</b>	<b>B/b or b/b</b>	<b>Black or brown coat, nose and foot pads (carries at least one copy of brown)</b>
B Locus (Brown) - b <sup>a</sup>	0	
B Locus (Brown) - b <sup>c</sup>	0	
B Locus (Brown) - b <sup>d</sup>	1	
B Locus (Brown) - b <sup>h</sup>	0	
B Locus (Brown) - b <sup>e</sup>	0	
B Locus (Brown) - b <sup>s</sup>	1	
<b>Brachycephaly</b>	<b>BR/BR</b>	<b>Likely medium to long muzzle</b>
<b>Chondrodysplasia (CDPA)</b>	<b>cd/cd</b>	<b>Likely typical leg length</b>
<b>Co Locus (Cocoa, French Bulldog Type)</b>	<b>CO/CO</b>	<b>Black coat, nose and foot pads (does not carry cocoa)</b>
<b>Cu Locus (Curly Hair)</b>	<b>Cu/Cu<sup>C</sup></b>	<b>Curly/wavy coat (carrier)</b>
<b>D Locus (Dilute)</b>	<b>D/D</b>	<b>Non-dilute (does not carry dilute)</b>
D Locus (Dilute) - d <sup>1</sup>	0	
D Locus (Dilute) - d <sup>2</sup>	0	
D Locus (Dilute) - d <sup>3</sup>	0	
<b>E Locus</b>	<b>E/e<sup>1</sup></b>	<b>Black - Carrier (Yellow/Red)</b>

E Locus - E <sup>m</sup> (Melanistic Mask)	0	
E Locus - E <sup>g</sup> (Grizzle, Afghan Hound Type)	0	
E Locus - E <sup>h</sup> (Sable, Cocker Spaniel Type)	0	
E Locus - e <sup>A</sup> (Ancient Red, Spitz and Scent Hound Type)	0	
E Locus - e <sup>1</sup> (Yellow/Red)	1	
E Locus - e <sup>2</sup> (Cream, Australian Cattle Dog Type)	0	
E Locus - e <sup>3</sup> (White, Alaskan and Siberian Husky Type)	0	
<b>H Locus (Harlequin, Great Dane Type)</b>	<b>h/h</b>	<b>No harlequin</b>
<b>Hairlessness</b>	<b>Rh/Rh</b>	<b>Coated</b>
Hairlessness (American Hairless Terrier Type) - rh <sup>1</sup>	0	
Hairlessness (Scottish Deerhound Type) - rh <sup>2</sup>	0	
<b>Hr Locus (FOXI3 Hairless Gene Test, Mexican Hairless, Peruvian Hairless and Chinese Crested Type)</b>	<b>hr/hr</b>	<b>Coated</b>
<b>I Locus (Intensity)</b>	<b>I/I</b>	<b>Normal intensity</b>
<b>IC Locus (Improper Coat/Furnishings)</b>	<b>F/IC</b>	<b>Furnishings (improper coat carrier)</b>
<b>K Locus (Dominant Black)</b>	<b>k<sup>y</sup>/k<sup>y</sup></b>	<b>Agouti expression allowed</b>
<b>L Locus (Long Hair/Fluffy)</b>	<b>Lh<sup>1</sup>/Lh<sup>1</sup></b>	<b>Longhaired (carries two copies of long hair)</b>
L Locus (Long Hair/Fluffy) - Lh <sup>1</sup>	2	
L Locus (Long Hair/Fluffy) - Lh <sup>2</sup>	0	
L Locus (Long Hair/Fluffy) - Lh <sup>3</sup>	0	
L Locus (Long Hair/Fluffy) - Lh <sup>4</sup>	0	
<b>M Locus (Merle)</b>	<b>m/m</b>	<b>Non merle</b>
<b>Polydactyly (Common Variant)</b>	<b>pd/pd</b>	<b>Normal (typical) toes (likely no hind dewclaws)</b>

<b>Polydactyly (Great Pyrenees Type)</b>	<b>WT/WT</b>	<b>Normal (Clear)</b>
<b>R Locus (Roan/Ticked)</b>	<b>r/r</b>	<b>No roan or ticking</b>
R Locus (Roan/Ticked) - R <sup>Ti</sup>	0	
R Locus (Roan/Ticked) - R	0	
<b>S Locus (White Spotting, Parti, or Piebald)</b>	<b>s<sup>P</sup>/s<sup>P</sup></b>	<b>Nearly solid white, parti, or piebald</b>
<b>SD Locus (Shedding)</b>	<b>sd/SD</b>	<b>Moderate shedding</b>
<b>Sex Determination</b>	<b>X/Y</b>	<b>Male</b>
<b>Social Behavior</b>	<b>WT/M; WT/WT</b>	<b>May demonstrate more social behavior</b>
Social Behavior, Variant 1	1	
Social Behavior, Variant 2	0	
<b>T Locus (Natural Bobtail)</b>	<b>t/t</b>	<b>Normal tail</b>

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Determinants of coat colors and traits are complex. Many of these variants are known and many of the genes screened in the Canine HealthCheck interact. In addition, not all the genetic factors that contribute to a dog's coat color and traits are known. Because of the complexities in gene-gene interactions, the coat colors and traits reported in your Canine HealthCheck results may vary from your dog's actual appearance. Individual differences in genes throughout the canine genome, not tested in this genetic screen, may also affect the final coat color or traits seen in your dog.

## Explanation of Results

### Normal

A 'Normal' result means that your dog does not have the mutation that causes the associated genetic disease.

### Carrier

A 'Carrier' result indicates that your dog has inherited one copy of the mutation that has been reported to cause this genetic disease. Your dog may not be clinically affected by this mutation because two copies of the mutation are usually required to cause disease.

**Carrier / At-Risk**

A 'Carrier / At-Risk' result indicates that your dog inherited one copy of the mutation that has been reported to cause this genetic disease. Based on the mode of genetic inheritance for this particular disease, inheriting one mutant copy of the gene may result in the disease. Dogs with one copy of the mutation may have a milder phenotype as compared to dogs with two copies of this mutation.

**At-Risk / Affected**

An 'At-Risk / Affected' result indicates that your dog inherited one or two copies of the mutation that has been reported to cause this genetic disease. Based on the mode of genetic inheritance for this particular disease, inheriting one or two mutant copies of the gene may result in the disease.

**No Result**

'No Result' indicates that we were unable to obtain a genotype for your dog for this specific disease or trait and does not mean that your dog is a carrier or at-risk for this disease. There are a variety of reasons why a specific test may not provide a reportable result. Unique variations in the genetic code of some individuals may exist and cause certain regions of the genome to not perform properly with a specific test. In addition, suboptimal sampling of the dog's cheek cells could also result in poor sample performance due to inadequate cell counts, bacterial and fungal growth, or the presence of other test inhibitors. An acceptable level of tests with no results has been determined by Paw Print Genetics. Dogs with at least 90% of the test results are determined to be acceptable and reportable. If your dog has an unacceptable level of tests with no results, you will be contacted for a new sample to repeat the testing.

Please review our testing terms and disclaimers regarding your results.