



# CAVALIER HEALTH CENSUS June 2<sup>nd</sup> to June 9<sup>th</sup> 2013

## ANALYSIS OF RETURNS AUSTRALIA & NEW ZEALAND

### Issue 2

Compiled by:

A handwritten signature in black ink, appearing to read 'D W Norris', with a stylized flourish at the end.

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17<sup>th</sup> December 2013

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### Change History

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## Table of Contents

1. INTRODUCTION .....	7
2. CENSUS RETURNS .....	7
2.1. GENERAL .....	7
2.2. DATA PROTECTION .....	7
2.3. EDITING OF RETURNS.....	7
3. DEMOGRAPHIC PROFILES.....	8
3.1. WORLDWIDE .....	8
3.2. AUSTRALIA & NEW ZEALAND .....	8
4. CENSUS RESPONSES .....	9
4.1. GENERAL QUESTIONS .....	9
4.1.1. Ages .....	9
4.1.2. Happy .....	10
4.2. OBSERVATIONS .....	10
4.2.1. Weight .....	10
4.2.2. Eating Habits .....	10
4.2.3. Friendly.....	10
4.2.4. Sociable.....	10
4.2.5. Obedience .....	11
4.2.6. Aggressive.....	11
4.2.7. Noisy .....	11
4.2.8. Excitable .....	11
4.2.9. Nervous .....	11
4.2.10. Spayed or Neutered.....	12
4.2.11. Lazy or Active .....	12
4.2.12. Exercise .....	12
4.2.13. Housing.....	13
4.2.14. Hearing .....	13
4.3. HEALTH QUESTIONS .....	13
4.3.1. Introduction.....	13
4.3.2. Summary of Returns .....	14
4.3.3. Heart Condition .....	16
4.3.4. Hereditary Cataract .....	17
4.3.5. Juvenile Cataract.....	17
4.3.6. Multi Retinal Dysplasia .....	18
4.3.7. Cherry Eye .....	18
4.3.8. Distichiasis (extra eyelashes).....	18
4.3.9. Cancer.....	18
4.3.10. Skeletal Problems.....	18
4.3.11. Luxating Patella (Slipping Patella) .....	18
4.3.12. Hip Dysplasia.....	19
4.3.13. Arthritis.....	19
4.3.14. MMM (Masticatory Muscle Myositis).....	20
4.3.15. Auto-immune Disease .....	20
4.3.16. BAOS (Brachycephalic Airways Obstruction) .....	20
4.3.17. Infertility .....	20
4.3.18. Birthing Difficulties, i.e. required caesarean section .....	20
4.3.19. Cryptorchidism (no testicles descended in the scrotum) .....	21
4.3.20. Monorchidism (one testicle).....	21
4.3.21. Pyometra .....	21
4.3.22. Chiari Malformation.....	22
4.3.23. Syringomyelia .....	23
4.3.24. Epilepsy .....	24
4.3.25. PSOM (Primary Secretory Otitis Media) Also known as “glue ear”) .....	24
4.3.26. Hearing Loss.....	24
4.3.27. Dry Eye/Curly Coat .....	25

4.3.28.	Episodic Falling Syndrome .....	25
4.3.29.	Dental Issues .....	25
4.3.30.	Umbilical Hernia.....	26
4.3.31.	Inguinal Hernia.....	27
4.3.32.	Colitis .....	27
4.3.33.	Hemorrhagic Gastroenteritis.....	28
4.3.34.	Liver Disease .....	28
4.3.35.	Kidney Disease.....	28
4.3.36.	Diabetes.....	28
4.3.37.	Cushing’s Disease.....	28
4.3.38.	Pancreatic Deficiency .....	28
4.3.39.	Allergy to Food.....	28
4.3.40.	Unspecified pain .....	29
4.3.41.	Any other condition not listed.....	29
ANNEX A.	CENSUS FORM.....	30
ANNEX B.	OTHER CONDITIONS - RESPONSES.....	31
B.1.	Acidosis .....	31
B.2.	Allergy.....	31
B.3.	Ears .....	31
B.4.	Eyes.....	31
B.5.	Fertility .....	31
B.6.	General.....	31
B.7.	Heart.....	31
B.8.	Hernia .....	32
B.9.	Patella.....	32
B.10.	Skeletal .....	32
B.11.	Spleen.....	32

**List of Tables**

Table 1 - Summary of Returns Worldwide.....	8
Table 2 - Summary of Returns from Australia & New Zealand.....	8
Table 3 – Australia & New Zealand - Age Distribution under the UK KC/BVA Screening Schemes .....	10
Table 4 - Noise Characteristics by Colour .....	11
Table 5 - Excitable Characteristics by Colour .....	11
Table 6 - Nervous Characteristics by Colour .....	11
Table 7 - Summary of Health Conditions .....	16
Table 8 - Diagnosed Heart Condition Distribution by Colour, Sex and Age.....	17
Table 9 - Distribution of Chiari Malformation by Colour and Age.....	22
Table 10 - Distribution of Syringomyelia by Colour and Age .....	23

**Table of Figures**

Figure 1 - Australia & New Zealand - Distribution by Colour and Sex. ....	8
Figure 2 - Australia & New Zealand Age Distribution.....	9
Figure 3 - Observed Noisy, Excitability and Nervous Characteristics.....	12
Figure 4 - Reported Considered Deafness by Age .....	13
Figure 5 - Reported Veterinary Diagnosed Conditions .....	15
Figure 6 - Diagnosed Heart Condition Distribution by Colour and Age.....	17
Figure 7 - Colour Distribution for Luxating Patella .....	19
Figure 8 - Colour Distribution for Arthritis.....	19
Figure 9 – Reported Occurrences of Diagnosed Arthritis By Age.....	20
Figure 10 - Colour Distribution for Birthing Difficulties .....	21
Figure 11 - Colour Distribution for Monorchidism .....	21
Figure 12 - Reported Occurrences of Diagnosed Chiari Malformation .....	22

Figure 13 - Reported Occurrences of Diagnosed Syringomyelia.....	23
Figure 14 - Colour Distribution for Diagnosed Hearing Loss .....	24
Figure 15 - Diagnosed Hearing Loss as a Percentage of Age Band .....	25
Figure 16 - Colour Distribution for Dental Issues .....	26
Figure 17 - Diagnosed Dental Issues as a Percentage of Age Band.....	26
Figure 18 - Colour Distribution for Umbilical Hernia.....	27
Figure 19 - Colour Distribution for Inguinal Hernia.....	27
Figure 20 - Colour Distribution for Allergy To Food .....	28

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# **CAVALIER HEALTH CENSUS - June 2<sup>nd</sup> to June 9<sup>th</sup> 2013**

## **ANALYSIS OF RETURNS**

### **AUSTRALIA AND NEW ZEALAND**

#### **1. INTRODUCTION**

It has been some years since the UK Cavalier Club first produced a series of booklets entitled "Looking at the Breed" and working with the agreement of all UK regional Cavalier Clubs a Health Census was carried out during the period of 2<sup>nd</sup> June to 9<sup>th</sup> June 2013.

Cavalier owners were asked to complete a Census return either on paper or via the Internet at various locations including the UK CKCS Club website, Facebook and other breed web sites.

Initially the Census was intended to be restricted to owners resident in the United Kingdom but due to the interest from owners all over the world, the Census was extended to include these owners.

This document contains the analysis of the returns relating to Australia and New Zealand.

This document does not derive any conclusions nor make any recommendations from the data submitted.

#### **2. CENSUS RETURNS**

##### **2.1. GENERAL**

Owners of Cavaliers were asked to complete and return a Census form, see ANNEX A. This form was mirrored on the Internet, primarily the UK Cavalier Club website and Facebook.

The form was designed to be a "tick box" format to ensure that the observations and descriptions were consistent across all returns. Owners were asked for their names and the pet names of their dogs, but this was not mandatory, and these fields have been removed from all analysis files making all returns anonymous.

Worldwide details for a total of 5559 Cavaliers were submitted, 326 by paper and 5233 electronically via the Internet.

For Australia and New Zealand, electronic returns for a total of 299 Cavaliers were submitted.

Returns were initially stored in a secure MySQL database and then transferred to a spreadsheet for analysis.

##### **2.2. DATA PROTECTION**

All data has been handled in accordance with the UK Data Protection Act 1998, Data Controller reference Z9120799 refers, and all references to the owner and the dog names have been removed from the analysis data. Therefore the identities of the owner or dog cannot be derived from the analysis provided in this report.

##### **2.3. EDITING OF RETURNS**

Editing of the returns prior to analysis was restricted to the following:

- Deletion of names of owners.
- Deletion of names of dogs.
- Adjusting the ages to a common format.
- Deletion of a dog that was declared as "deceased" and therefore was not in compliance with the instructions given on the Census Form.
- Amendments as requested by the owner.
- Addition of "Country of Residence" field.

No other changes were made to the source data.

### 3. DEMOGRAPHIC PROFILES

#### 3.1. WORLDWIDE

	Total		Dogs		Bitches	
All Colours	5559	100%	2152	38.71%	3407	61.29%
Blenheim	2835	51.00%	1093	38.55%	1742	61.45%
Tricolour	1226	22.05%	480	39.15%	746	60.85%
Black and Tan	746	13.42%	286	38.34%	460	61.66%
Ruby	752	13.53%	293	38.96%	459	61.04%

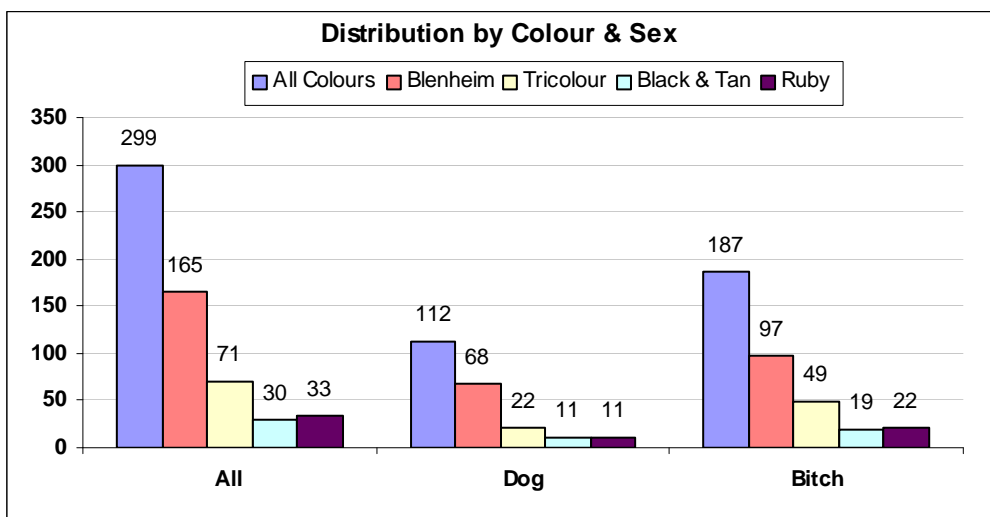
**Table 1 - Summary of Returns Worldwide.**

#### 3.2. AUSTRALIA & NEW ZEALAND

	All		Dog		Bitch	
All Colours	299	100%	112	37.5%	187	62.5%
Blenheim	165	55.18%	68	41.2%	97	58.8%
Tricolour	71	23.75%	22	31.0%	49	69.0%
Black and Tan	30	10.03%	11	36.7%	19	63.3%
Ruby	33	11.04%	11	33.3%	22	66.7%

**Table 2 - Summary of Returns from Australia & New Zealand.**

Figure 1 illustrates the distribution for Australia & New Zealand returns by coat colour and sex.



**Figure 1 - Australia & New Zealand - Distribution by Colour and Sex.**



## 4. CENSUS RESPONSES

### 4.1. GENERAL QUESTIONS

#### 4.1.1. Ages

Ages identified on the returns were converted decimal years, rounded to two decimal places, to ensure consistency when carrying out the analysis. For example 3 years 5 months was converted to 3.42 years.

Figure 2 illustrates the age distribution for returns from Australia & New Zealand. The youngest dog identified was declared as 2 months and the oldest as 15 years.

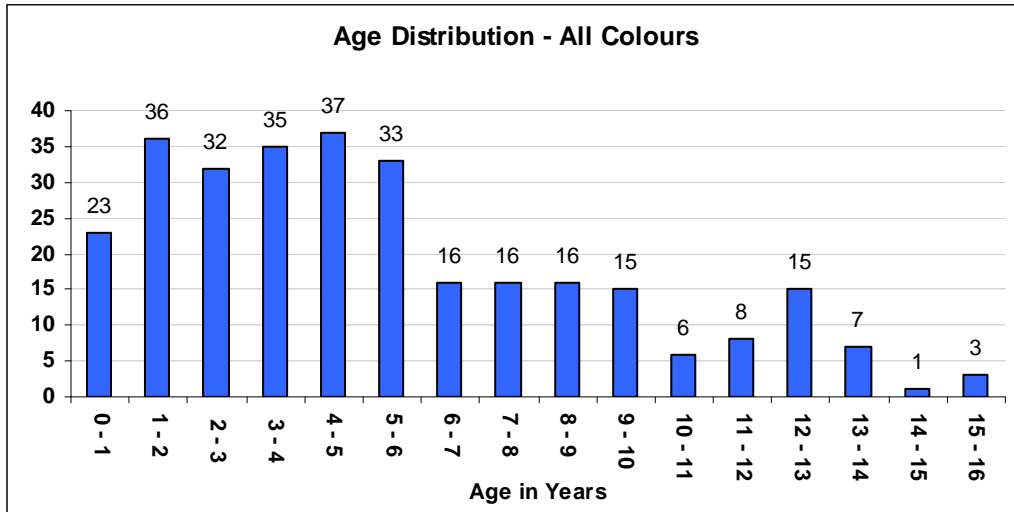


Figure 2 - Australia & New Zealand Age Distribution

For the reported conditions “Chiari Malformation”, “Syringomyelia” and “Heart Condition”, the declared ages have also been banded into those identified in the “UK BVA/KC Chiari Malformation / Syringomyelia Scheme” and the UK Cavalier Club “Heart Scheme”. This gives three age bands 0 to 3 years, 3 to 5 years and over 5 years.

Table 3 gives the age distribution under the UK KC/BVA Screening Schemes for the Cavaliers resident in Australia & New Zealand as entered into the Census.

		0 to 3 Years	3 to 5 Years	Over 5 years
<b>All Colours</b>	Total	91	72	136
	Dog	34	28	50
	Bitch	57	44	86
<b>Blenheim</b>	Total	48	44	73
	Dog	19	19	30
	Bitch	29	25	43
<b>Tricolour</b>	Total	23	11	37
	Dog	8	4	10
	Bitch	15	7	27
<b>Black &amp; Tan</b>	Total	8	7	15
	Dog	2	3	6

		0 to 3 Years	3 to 5 Years	Over 5 years
	Bitch	6	4	9
<b>Ruby</b>	Total	12	10	11
	Dog	5	2	4
	Bitch	7	8	7

**Table 3 – Australia & New Zealand - Age Distribution under the UK KC/BVA Screening Schemes**

**4.1.2. Happy**

293 (98.0%) owners considered that their Cavalier was **happy**.

2 (0.7%) owners considered that their Cavalier was **not happy**.

4 (1.3%) owners did not express an opinion or complete this box.

Those owners who considered that their Cavalier was **not happy** did not identify any condition that may contribute to this opinion.

**4.2. OBSERVATIONS**

Observations have been collated under related topics. Where there is an observed difference in the reported observation by age, sex or coat colour, then the analysis has been expanded to indicate these trends. Where percentages are given against the colours, these are for the total colour population.

**4.2.1. Weight**

240 (80.3%) owners considered that their Cavalier was at the **correct weight**.

45 (15.1%) owners considered that their Cavalier was **overweight**.

8 (2.7%) owners considered that their Cavalier was **underweight**.

There was no significant difference for the four colours.

**4.2.2. Eating Habits**

82 (27.4%) owners considered that their Cavalier was **greedy**. 17 (5.7%) owners who said that their Cavalier was overweight also considered that their Cavalier was greedy.

10 (3.3%) owners considered that their Cavalier was a **poor eater**. 2 (0.7%) owners who said that their Cavalier was underweight also considered that their Cavalier was a poor eater.

There was no significant difference for the four colours.

**4.2.3. Friendly**

272 (91.0%) owners considered that their Cavalier was **friendly**.

There was no significant difference for the four colours.

**4.2.4. Sociable**

206 (68.9%) owners considered that their Cavalier was **sociable**.

There was no significant difference for the four colours.

**4.2.5. Obedience**

143 (47.8%) owners considered that their Cavalier was **obedient**.

There was no significant difference for the four colours.

**4.2.6. Aggressive**

5 (1.7%) owners considered that their Cavalier was **aggressive**.

There was no significant difference for the four colours.

**4.2.7. Noisy**

52 (17.4%) owners considered that their Cavalier was **noisy**.

Of the colours, the Rubies were considered to be less noisy that the other colours.

	<b>Total</b>	<b>Blenheim</b>	<b>Tricolour</b>	<b>Black &amp; Tan</b>	<b>Ruby</b>
<b>Noisy</b>	52 (17.4%)	32 (19.4%)	11 (15.5%)	6 (20.0%)	3 (9.1%)

**Table 4 - Noise Characteristics by Colour**

**4.2.8. Excitable**

109 (36.5%) owners considered that their Cavalier was **excitable**.

Of the four colours, the Black and Tans were considered to be less excitable than the other colours.

	<b>Total</b>	<b>Blenheim</b>	<b>Tricolour</b>	<b>Black &amp; Tan</b>	<b>Ruby</b>
<b>Excitable</b>	109 (36.5%)	66 (40.0%)	26 (36.6%)	6 (20.0%)	11 (33.3%)

**Table 5 - Excitable Characteristics by Colour**

**4.2.9. Nervous**

24 (8.0%) owners considered that their Cavalier was **nervous**.

Of the four colours, the Tricolours were considered to be slightly less nervous than the other colours.

	<b>Total</b>	<b>Blenheim</b>	<b>Tricolour</b>	<b>Black &amp; Tan</b>	<b>Ruby</b>
<b>Nervous</b>	24 (8.0%)	14 (8.5%)	3 (4.2%)	3 (10.0%)	4 (12.1%)

**Table 6 - Nervous Characteristics by Colour**

Figure 3 illustrates the distribution by colour for the Noisy, Excitability and Nervous Characteristics.

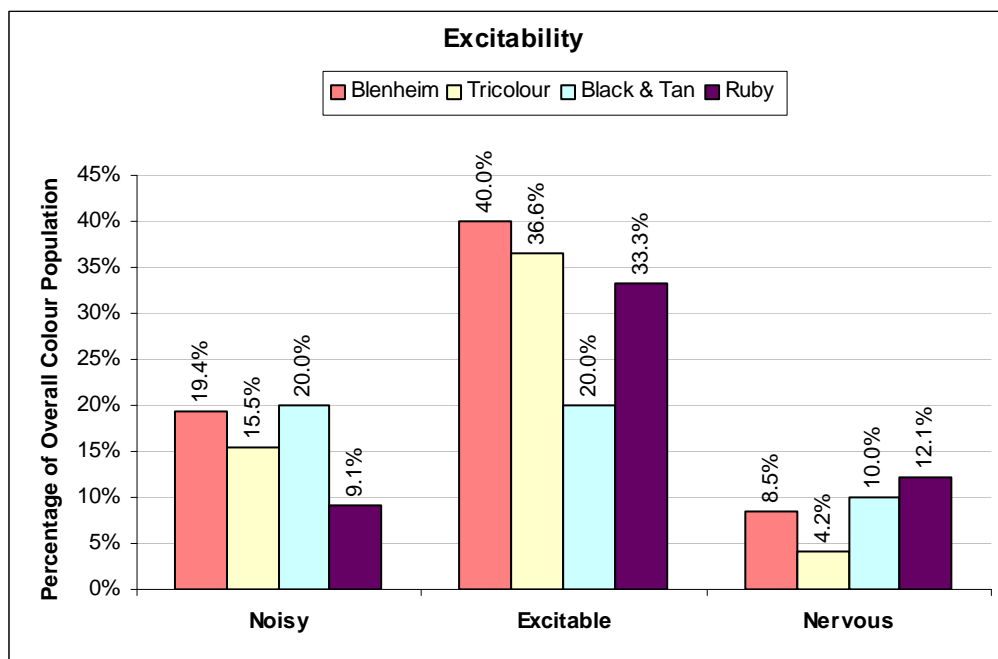


Figure 3 - Observed Noisy, Excitability and Nervous Characteristics

#### 4.2.10. Spayed or Neutered

34 (30.4%) of Cavalier dogs were reported as **neutered**.

67 (35.8%) of Cavalier bitches were reported as **spayed**.

#### 4.2.11. Lazy or Active

43 (14.4%) owners considered that their Cavalier was **lazy**.

168 (56.2%) owners considered that their Cavalier was **active**.

#### 4.2.12. Exercise

153 (51.2%) owners reported that their Cavalier was **regularly exercised**.

68 (22.7%) owners reported that their Cavalier received **limited exercise**.

Of the top Veterinary Diagnosed Conditions, those owners who stated that their Cavalier received limited exercise:

- 14 (4.7%) also reported that their Cavalier also had a diagnosed Heart Condition.
- 8 (2.7%) also reported that their Cavalier had also been diagnosed with Chiari Malformation.
- 7 (2.3%) also reported that their Cavalier had also been diagnosed with Arthritis.
- 4 (1.3%) also reported that their Cavalier had also been diagnosed with Hip Dysplasia.
- 2 (0.7%) also reported that their Cavalier had also been diagnosed with Luxating Patella.
- 1 (0.3%) also reported that their Cavalier had also been diagnosed with Syringomyelia.

Of those owners who stated that their Cavalier received limited exercise, 15 (5.0%) owners also considered that their Cavalier was slightly or totally deaf.

There were no other reported common conditions associated with limited exercise.

### 4.2.13. Housing

172 (57.5%) owners reported that their Cavalier **lived in the house**.

87 (29.1%) owners reported that their Cavalier **lived partly in the house and partly in a kennel**.

16 (5.4%) owners reported that their Cavalier **lived in a kennel**.

### 4.2.14. Hearing

Some owners had reported in this section that their dog was slightly deaf or totally deaf but did not record this under "Health Conditions - Hearing Loss". This could indicate that a Veterinary Practitioner did not confirm the hearing loss.

225 (75.3%) owners considered that their Cavalier had **good hearing**.

30 (10.0%) owners considered that their Cavalier was **slightly deaf**.

16 (5.4%) owners considered that their Cavalier was **totally deaf**.

Figure 4 illustrates the ages, as a percentage of the number of dogs in any year age band, for the Cavaliers where owners considered that they had impaired hearing. These figures do not indicate the age of the onset of deafness.

The median value, which is that used in the UK 2004 KC/BVSA Health Survey, reported age for slight or total deafness is 10.50 years.

The average (mean value) reported age for slight or total deafness is 9.83 years.

The most occurring (mode value) reported age for slight or total deafness is 12 years.

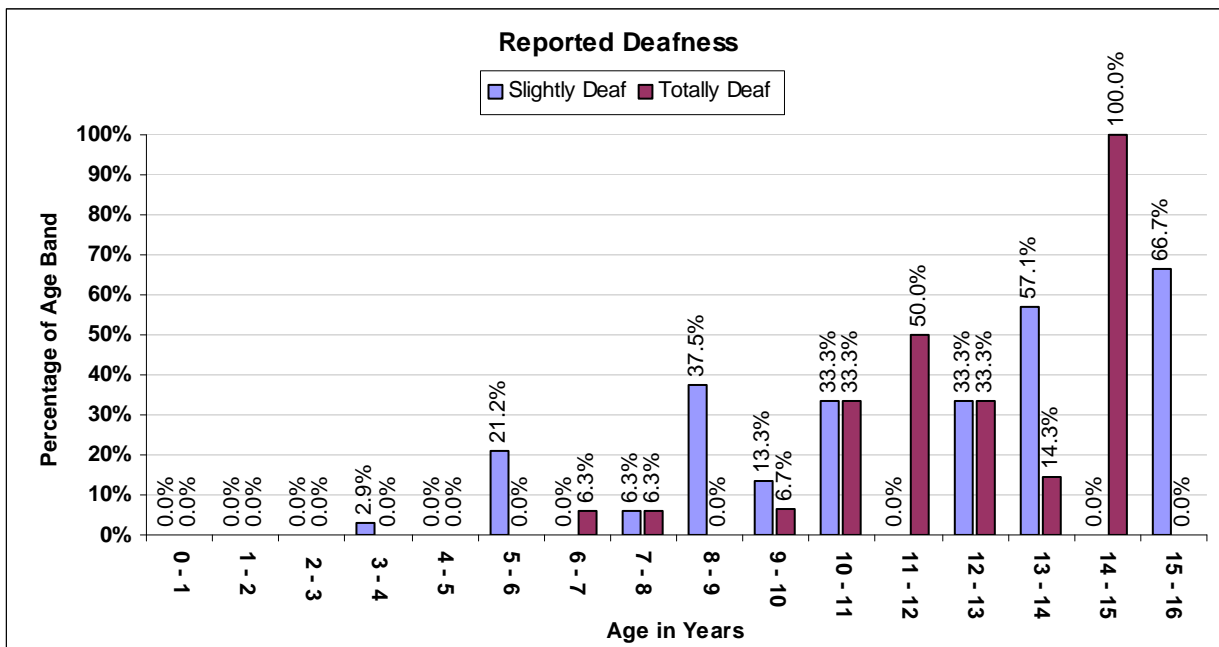


Figure 4 - Reported Considered Deafness by Age

## 4.3. HEALTH QUESTIONS

### 4.3.1. Introduction

Owners were asked to identify any health condition that had been diagnosed by a Veterinary Practitioner.

Reporting of Chiari Malformation, Syringomyelia, Dry Eye / Curly Coat and Episodic Falling conditions could be considered arbitrary, as owners may have reported on the results of diagnostic scanning and DNA tests even though a Veterinary Practitioner may not have confirmed that the dog is clinically affected. No attempt has been made to adjust the analysis for this situation.

#### **4.3.2. Summary of Returns**

The following paragraphs are ordered in the same sequence as the Census Form. Analysis of the defined conditions does not include any related conditions reported on in the “Any other condition not listed” question, these are reported on separately in paragraph 4.3.41.

Detailed breakdowns are given for specific conditions that are either covered by UK Club Screening Schemes, UK BVA/KC Screening Schemes and DNA tests. Additionally the analysis of some conditions has been expanded to identify trends by age, sex or coat colour.

Where percentages are given against the colours, these are for the total colour population.

Figure 5 illustrates the reported conditions as percentages of the total number of returns received from Australia and New Zealand.

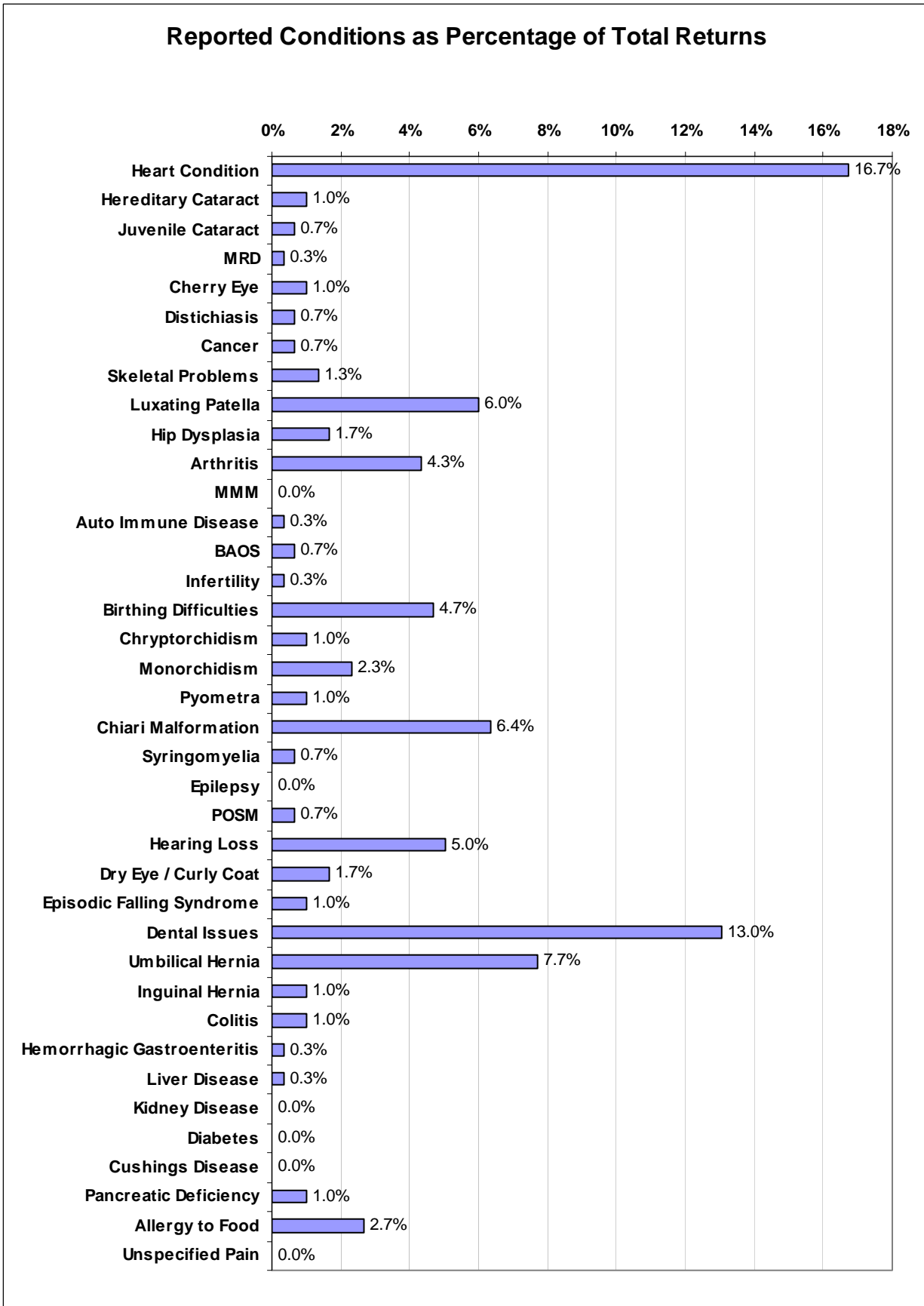


Figure 5 - Reported Veterinary Diagnosed Conditions

Table 7 is a summary of the returns against each identified condition along with the percentage of the total number of returns received from Australia and New Zealand.

Condition	No of Report	% of Total Reports	See Para
Heart Condition	50	16.7%	4.3.3
Hereditary Cataract	3	1.0%	4.3.4
Juvenile Cataract	2	0.7%	4.3.5
Multi Retinal Dysplasia	1	0.3%	4.3.6
Cherry Eye	3	1.0%	4.3.7
Distichiasis	2	0.7%	4.3.8
Cancer	2	0.7%	4.3.9
Skeletal Problems	4	1.3%	4.3.10
Luxating Patella	18	6.0%	4.3.11
Hip Dysplasia	5	1.7%	4.3.12
Arthritis	13	4.3%	4.3.13
MMM	0	0.0%	4.3.14
Auto Immune Disease	1	0.3%	4.3.15
BAOS	2	0.7%	4.3.16
Infertility	1	0.3%	4.3.17
Birthing Difficulties	14	4.7%	4.3.18
Chryptorchidism	3	1.0%	4.3.19
Monorchidism	7	2.3%	4.3.20
Pyometra	3	1.0%	4.3.21
Chiari Malformation	19	6.4%	4.3.22
Syringomyelia	2	0.7%	4.3.23
Epilepsy	0	0.0%	4.3.24
POSM	2	0.7%	4.3.25
Hearing Loss	15	5.0%	4.3.26
Dry Eye / Curly Coat	5	1.7%	4.3.27
Episodic Falling Syndrome	3	1.0%	4.3.28
Dental Issues	39	13.0%	4.3.29
Umbilical Hernia	23	7.7%	4.3.30
Inguinal Hernia	3	1.0%	4.3.31
Colitis	3	1.0%	4.3.32
Hemorrhagic Gastroenteritis	1	0.3%	4.3.33
Liver Disease	1	0.3%	4.3.34
Kidney Disease	0	0.0%	4.3.35
Diabetes	0	0.0%	4.3.36
Cushing's Disease	0	0.0%	4.3.37
Pancreatic Deficiency	3	1.0%	4.3.38
Allergy to Food	8	2.7%	4.3.39
Unspecified Pain	0	0.0%	4.3.40

**Table 7 - Summary of Health Conditions**

#### 4.3.3. Heart Condition

On the paper returns, some responses to this question also included the grading of Heart Murmur tests; this information was not allowed on the electronic returns.

50 (16.7%) owners reported that their Cavalier had a diagnosed **Heart condition**.

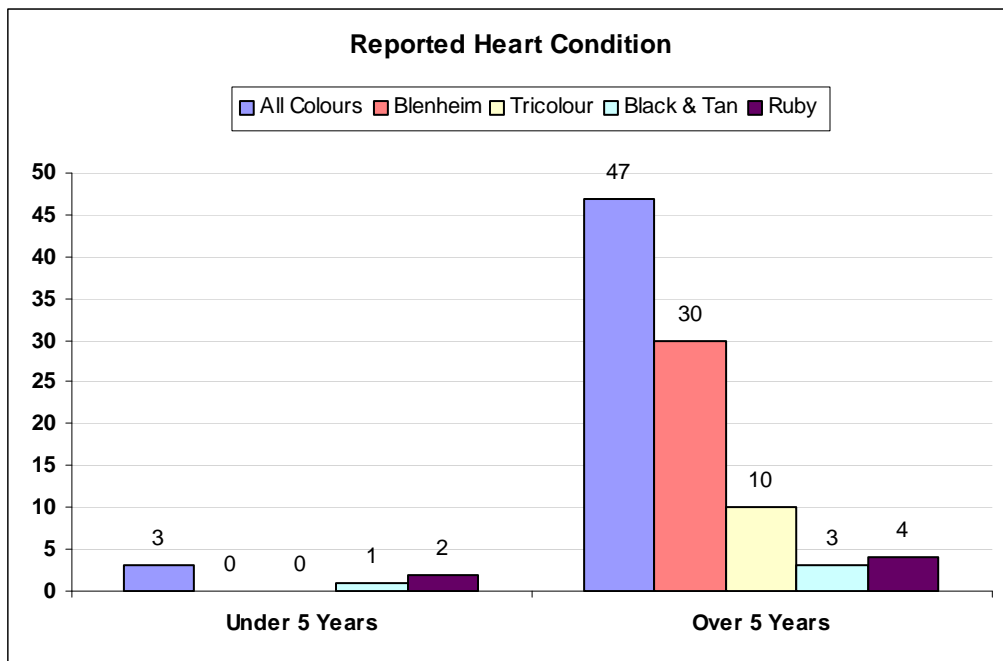
The youngest reported age was 2 years and the oldest 15 years. These figures do not indicate the age of the onset of any heart condition.



This condition has been analysed using the two age bands “under 5” and “over 5” in line with the UK Cavalier Club’s Heart Screening scheme. Percentages given are for the occurrence by overall colour and sex population.

	Under 5 Years			Over 5 Years		
	All	Dogs	Bitches	All	Dogs	Bitches
<b>All Colours</b>	3 (1.00%)	1 (0.89%)	2 (1.07%)	47 (15.72%)	19 (16.96%)	28 (14.97%)
<b>Blenheim</b>	0	0	0	30 (18.18%)	12 (17.65%)	18 (18.56%)
<b>Tricolour</b>	0	0	0	10 (14.08%)	3 (13.64%)	7 (14.29%)
<b>Black &amp; Tan</b>	1 (3.33%)	0	1 (5.26%)	3 (10.00%)	2 (18.18%)	1 (5.26%)
<b>Ruby</b>	2 (6.06%)	1 (9.09%)	1 (4.55%)	4 (12.12%)	2 (18.18%)	2 (9.09%)

**Table 8 - Diagnosed Heart Condition Distribution by Colour, Sex and Age**



**Figure 6 - Diagnosed Heart Condition Distribution by Colour and Age**

**4.3.4. Hereditary Cataract**

3 (1.0%) owners reported that their Cavalier had been diagnosed with **Hereditary Cataract**.

Of those reported, there was 1 (0.61%) Blenheim bitch aged 12 years 8 months and 2 (2.82%) Tricolours, a dog aged 11 years and a bitch aged 15 years. These figures do not indicate the age of the onset of any Hereditary Cataract.

**4.3.5. Juvenile Cataract**

2 (0.7%) owners reported that their Cavalier had been diagnosed with **Juvenile Cataract**.

Of those reported, there was 1 (1.41%) Tricolour bitch aged 6 months and 1 (3.03%) Ruby bitch aged 2 years. These figures do not indicate the age of the onset of Juvenile Cataract.

#### **4.3.6. Multi Retinal Dysplasia**

1 (0.33%) owner reported that their Blenheim Cavalier bitch, (0.61%), aged 3 years, had been diagnosed with **Multi Retinal Dysplasia**. This figure does not indicate the age of the onset of Multi Retinal Dysplasia.

#### **4.3.7. Cherry Eye**

3 (1.0%) owners reported that their Cavalier had been diagnosed with **Cherry Eye**.

There were 3 (1.82%) Blenheims reported as affected, 2 dogs and 1 bitch.

The youngest reported age was 1 year and the oldest 15 years. These figures do not indicate the age of the onset of Cherry Eye.

#### **4.3.8. Distichiasis (extra eyelashes)**

2 (0.7%) owners reported that their Cavalier had been diagnosed with **Distichiasis**.

Of those reported, there was 1 (0.61%) Blenheim bitch aged 9 years, and 1 (3.33%) Black and Tan dog aged 9 years. These figures do not indicate the age of the onset of Distichiasis.

#### **4.3.9. Cancer**

2 (0.7%) owners reported that their Cavalier had been diagnosed with **Cancer**.

Of those reported, both were Tricolour bitches (2.82%) aged 12 years. This figure does not indicate the age of the onset of Cancer.

#### **4.3.10. Skeletal Problems**

4 (1.3%) owners reported that their Cavalier had been diagnosed with **Skeletal Problems**.

There were 3 Blenheims (1.82%), 1 dog and 2 bitches, and 1 Ruby (3.03%) bitch reported as affected.

The youngest reported age was 3 years 11 months and the oldest 14 years 7 months. These figures do not indicate the age of the onset of Skeletal Problems.

#### **4.3.11. Luxating Patella (Slipping Patella)**

18 (6.0%) owners reported that their Cavalier had been diagnosed with **Luxating Patella**.

There were 8 dogs and 10 bitches reported as affected.

Of those reported, there were 7 (4.24%) Blenheims, 8 (11.27%) Tricolours and 3 (10.00%) Black and Tans.

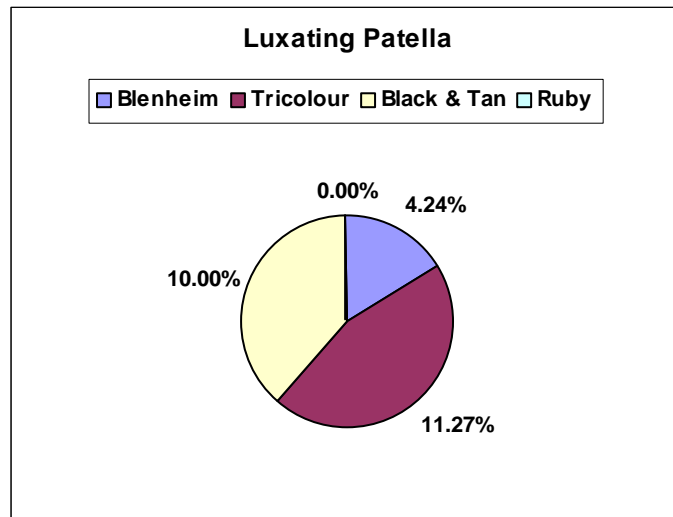


Figure 7 - Colour Distribution for Luxating Patella

The youngest reported age was 2 years 6 months and the oldest 12 years 9 months. These figures do not indicate the age of the onset of Luxating Patella.

**4.3.12. Hip Dysplasia**

5 (1.7%) owners reported that their Cavalier had been diagnosed with **Hip Dysplasia**.

Of those reported, there were 2 (1.21%) Blenheims, 1 dog and 1 bitch and 3 (4.23%) Tricolours, 1 dog and 2 bitches .

The youngest reported age was 10 years and the oldest 12 years. These figures do not indicate the age of the onset of Hip Dysplasia.

**4.3.13. Arthritis**

13 (4.3%) owners reported that their Cavalier had a diagnosed **Arthritis** condition.

There were 6 dogs and 7 bitches reported as affected.

Of those reported, there were 7 (4.24%) Blenheims, 3 (4.23%) Tricolours and 3 (10.00%) Black and Tans.

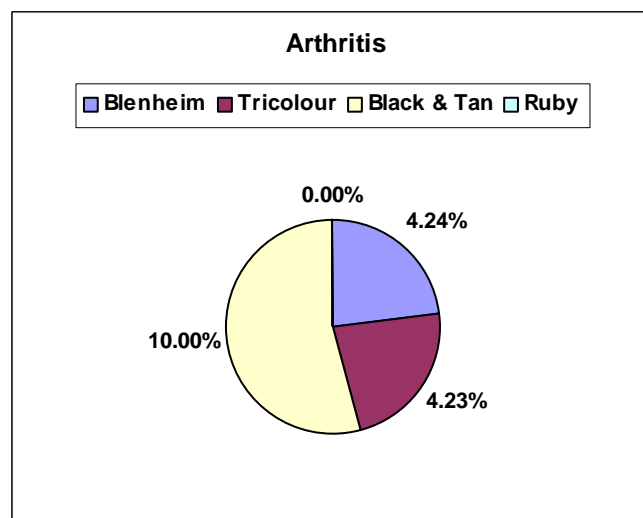
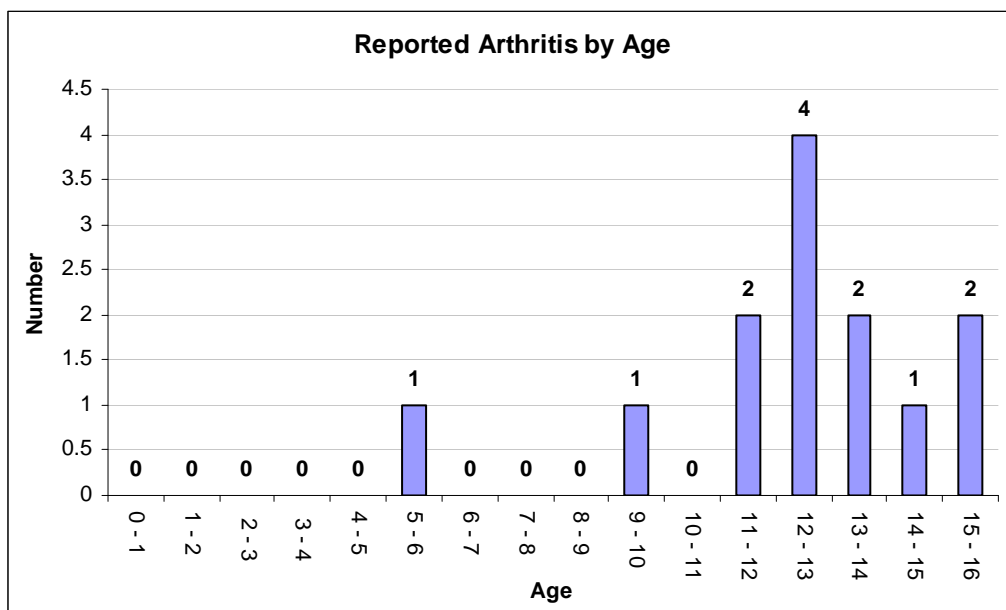


Figure 8 - Colour Distribution for Arthritis



**Figure 9 – Reported Occurrences of Diagnosed Arthritis By Age**

The youngest reported age was 5 years and the oldest 15 years. These figures do not indicate the age of the onset of Arthritis.

**4.3.14. MMM (Masticatory Muscle Myositis)**

No (0%) owners reported that their Cavalier had been diagnosed with **Masticatory Muscle Myositis**.

**4.3.15. Auto-immune Disease**

1 (0.3%) owner reported that their Blenheim Cavalier dog, (0.61%), aged 4 year, had been diagnosed with **Auto-immune Disease**. This figure does not indicate the age of the onset of Auto-immune Disease.

**4.3.16. BAOS (Brachycephalic Airways Obstruction)**

2 (0.75%) owners reported that their Cavalier had been diagnosed with **Brachycephalic Airways Obstruction**.

Of those reported, there was 1 (1.41%) 11 year old Tricolour dog and 1 (3.33%) 5 year old Black and Tan bitch. These figures do not indicate the age of the onset of Brachycephalic Airways Obstruction.

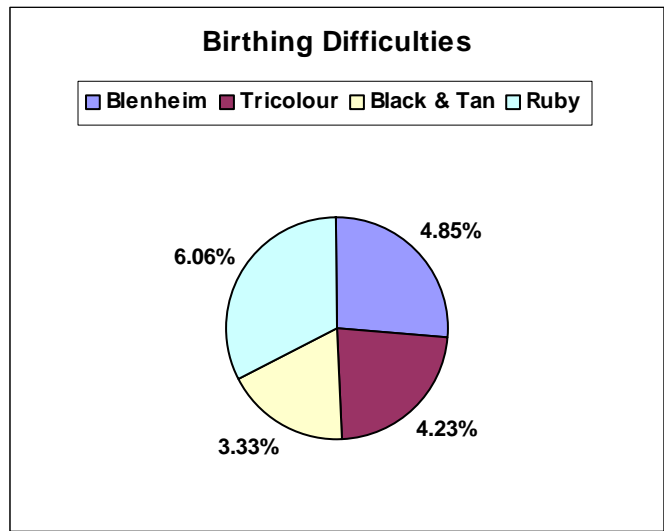
**4.3.17. Infertility**

1 (0.3%) owner reported that their Black and Tan Cavalier bitch, (3.33%), aged 9 years, had been diagnosed with **Infertility** problems. This figure does not indicate the age of the onset of Infertility.

**4.3.18. Birthing Difficulties, i.e. required caesarean section**

14 (4.7%) owners reported that their Cavalier had been diagnosed with **Birthing difficulties**.

Of those reported, there were 18 (4.85%) Blenheims, 3 (4.23%) Tricolours, 1 (3.33%) Black and Tans and 2 (6.06%) Rubies.



**Figure 10 - Colour Distribution for Birthing Difficulties**

The youngest reported age was 3 years and the oldest 13 years. These figures do not indicate the age of the onset of Birthing difficulties.

**4.3.19. Cryptorchidism (no testicles descended in the scrotum)**

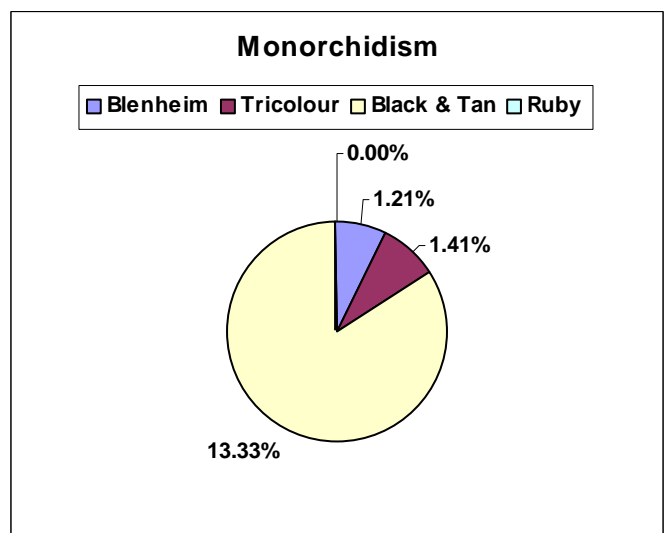
3 (1.0%) owners reported that their Cavalier had been diagnosed with **Cryptorchidism**.

Of those reported, there was 1 (0.61%) Blenheim and 2 (2.82%) Tricolours

**4.3.20. Monorchidism (one testicle)**

7 (2.3%) owners reported that their Cavalier had been diagnosed as a **Monorchid**.

Of those reported, there were 2 (1.21%) Blenheims, 1 (1.41%) Tricolours and 4 (13.33%) Black and Tans.



**Figure 11 - Colour Distribution for Monorchidism**

**4.3.21. Pyometra**

3 (1.0%) owners reported that their Blenheim Cavaliers, (1.82%), had been diagnosed with **Pyometra**.

The youngest reported age was 4 years and the oldest 12 years 8 months. These figures do not indicate the age of the initial occurrence of Pyometra.

**4.3.22. Chiari Malformation**

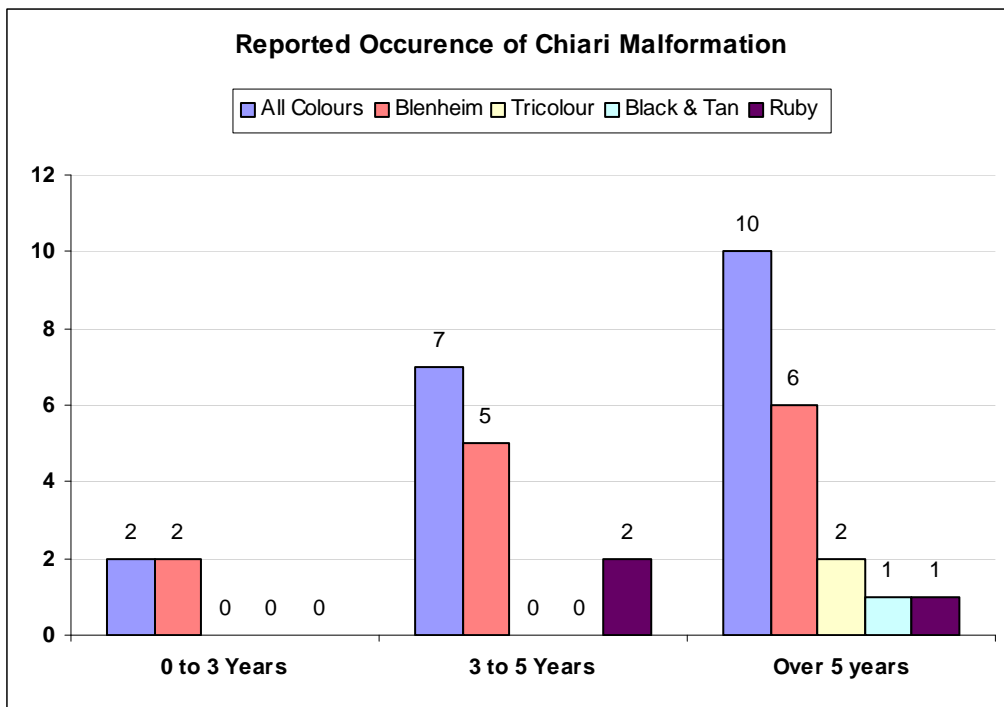
Owners were asked in the Census for the occurrence of Chiari Malformation as diagnosed by a Veterinary Practitioner. Owners were not asked for the Grade or whether the Cavalier was Symptomatic or Asymptomatic. No conclusions should therefore be made on these points from the returns received.

This condition has been analysed using the three age bands “0 to 3”, “3 to 5” and “over 5” in line with the “UK BVA/KC Chiari Malformation / Syringomyelia Scheme”. Percentages given are for the occurrence by overall colour and sex population.

19 (6.4%) owners reported that their Cavalier had been diagnosed with **Chiari Malformation**.

	0 to 3 Years			3 to 5 Years			Over 5 Years		
	All	Dog	Bitch	All	Dog	Bitch	All	Dog	Bitch
<b>All Colours</b>	2 (0.67%)	0	2 (1.07%)	7 (2.34%)	5 (4.46%)	2 (1.07%)	10 (3.34%)	6 (5.36%)	4 (2.14%)
<b>Blenheim</b>	2 (1.21%)	0	2 (2.06%)	5 (3.03%)	4 (5.88%)	1 (1.03%)	6 (3.64%)	4 (5.88%)	2 (2.06%)
<b>Tricolour</b>	0	0	0	0	0	0	2 (2.82%)	1 (4.55%)	1 (2.04%)
<b>Black &amp; Tan</b>	0	0	0	0	0	0	1 (3.33%)	1 (9.09%)	0
<b>Ruby</b>	0	0	0	2 (6.06%)	1 (9.09%)	1 (4.55%)	1 (3.03%)	0	1 (4.55%)

**Table 9 - Distribution of Chiari Malformation by Colour and Age**



**Figure 12 - Reported Occurrences of Diagnosed Chiari Malformation**

The youngest reported age was 2 years and the oldest 12 years. These figures do not indicate the age of initial onset of Chiari Malformation.

**4.3.23. Syringomyelia**

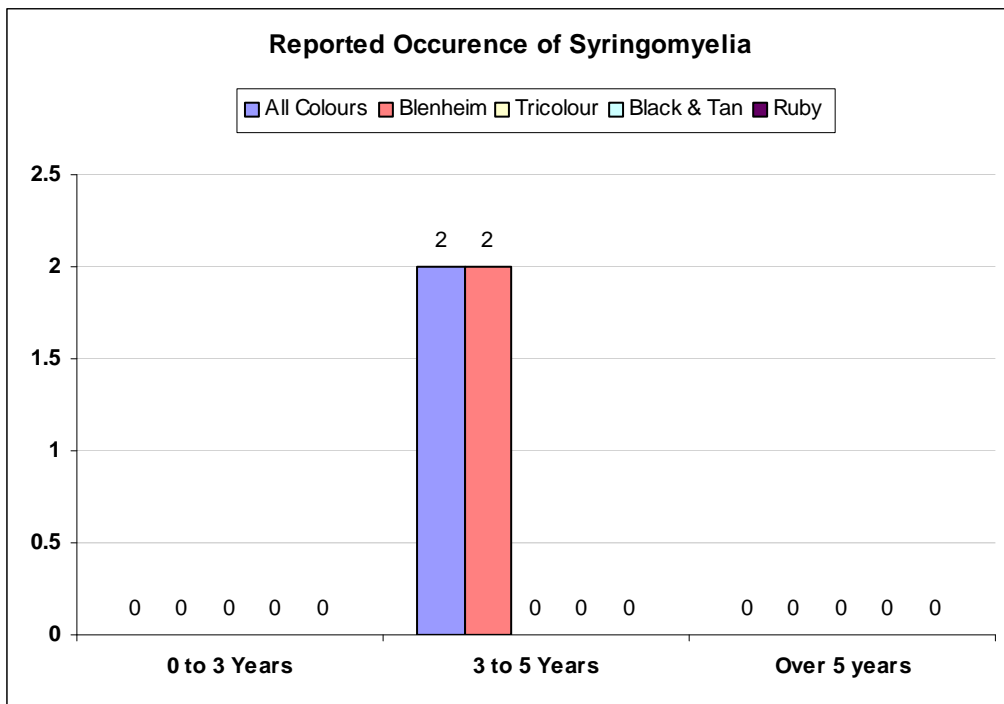
Owners were asked in the Census for the occurrence of Syringomyelia as diagnosed by a Veterinary Practitioner. Owners were not asked for the Grade or whether the Cavalier was Symptomatic or Asymptomatic. No conclusions should therefore be made on these points from the returns received.

This condition has been analysed using the three age bands “0 to 3”, “3 to 5” and “over 5” in line with the “ UK BVA/KC Chiari Malformation / Syringomyelia Scheme”. Percentages given are for the occurrence by overall colour and sex population.

2 (0.7%) owners reported that their Cavalier had been diagnosed with **Syringomyelia**.

	0 to 3 Years			3 to 5 Years			Over 5 Years		
	All	Dog	Bitch	All	Dog	Bitch	All	Dog	Bitch
<b>All Colours</b>	0	0	0	2 (0.67%)	1 (0.33%)	1 (0.33%)	0	0	0
<b>Blenheim</b>	0	0	0	2 (1.21%)	1 (0.61%)	1 (0.61%)	0	0	0
<b>Tricolour</b>	0	0	0	0	0	0	0	0	0
<b>Black &amp; Tan</b>	0	0	0	0	0	0	0	0	0
<b>Ruby</b>	0	0	0	0	0	0	0	0	0

**Table 10 - Distribution of Syringomyelia by Colour and Age**



**Figure 13 - Reported Occurrences of Diagnosed Syringomyelia**

The youngest reported age was 4 years and the oldest 4 years 6 months. These figures do not indicate the age of initial onset of Syringomyelia.

#### 4.3.24. Epilepsy

No (0%) owners reported that their Cavalier had been diagnosed with **Epilepsy**.

#### 4.3.25. PSOM (Primary Secretary Otitis Media) Also known as “glue ear”

2 (0.7%) owners reported that their Cavalier had been diagnosed with **Primary Secretary Otitis Media**.

Of those reported, both were Blenheim dogs (1.21%), one aged 8 years and the other 12 years. These figures do not indicate the age of initial onset of Primary Secretary Otitis Media.

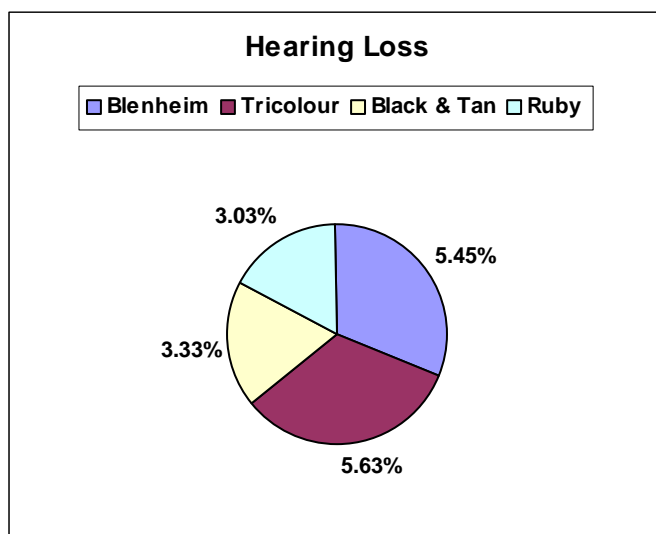
#### 4.3.26. Hearing Loss

Some owners had reported under “Observations” that their dog was slightly deaf or totally deaf but did not record this under “Health Conditions - Hearing Loss”. This could indicate that a Veterinary Practitioner did not confirm the hearing loss. These observations have not been included in the analysis of this condition.

15 (5.0%) owners reported that their Cavalier had been diagnosed with **Hearing Loss**.

There were 3 dogs and 12 bitches reported as affected.

Of those reported, there were 9 (5.45%) Blenheims, 4 (5.63%) Tricolours, 1 (3.33%) Black and Tans and 1 (3.03%) Ruby.



**Figure 14 - Colour Distribution for Diagnosed Hearing Loss**

The youngest reported age was 6 years and the oldest 14 years 7 months. These figures do not indicate the age of the initial loss of hearing.



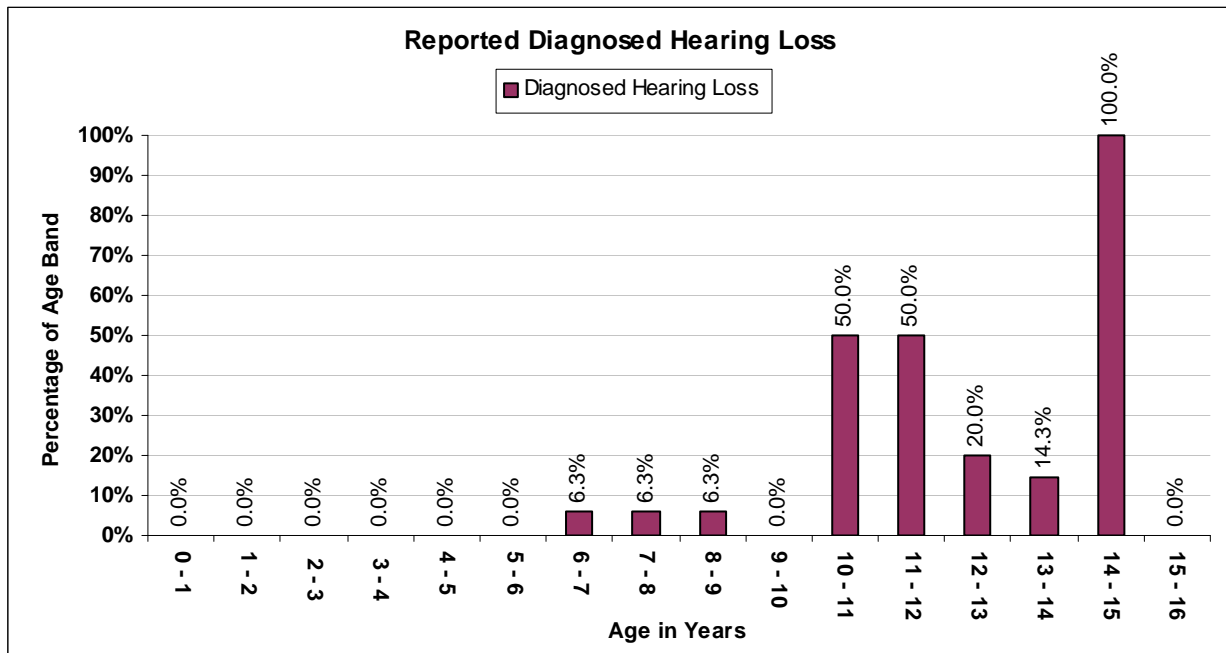


Figure 15 - Diagnosed Hearing Loss as a Percentage of Age Band

**4.3.27. Dry Eye/Curly Coat**

Owners were asked in the Census for the occurrence of Dry Eye / Curly Coat as diagnosed by a Veterinary Practitioner. Owners were not asked for the results of any DNA test or whether the Cavalier was Symptomatic or Asymptomatic. No conclusions should therefore be made on these points from the returns received.

5 (1.7%) owners reported that their Cavalier had been diagnosed with **Dry Eye / Curly Coat**.

There were 4 Blenheim dogs (2.42%) and 1 Ruby bitch (3.03%) reported as affected.

The youngest reported age was 3 years and the oldest 15 years. These figures do not indicate the age of the initial onset of Dry Eye / Curly Coat.

**4.3.28. Episodic Falling Syndrome**

Owners were asked in the Census for the occurrence of Episodic Falling Syndrome as diagnosed by a Veterinary Practitioner. Owners were not asked for the results of any DNA test or whether the Cavalier was Symptomatic or Asymptomatic. No conclusions should therefore be made on these points from the returns received.

3 (1.0%) owners reported that their Cavalier had been diagnosed with **Episodic Falling Syndrome**.

Of those reported, there was 1 (3.33%) Black and Tan dog and 2 (6.06%) Rubies, 1 dog and 1 bitch.

The youngest reported age was 3 year and the oldest 9 years. These figures do not indicate the age of the initial onset of Episodic Falling Syndrome.

**4.3.29. Dental Issues**

39 (13.0%) owners reported that their Cavalier had been diagnosed with **Dental Issues**.

There were 17 dogs and 22 bitches reported as affected.

Of those reported, there were 25 (15.15%) Blenheims, 9 (12.68%) Tricolours, 3 (10.00%) Black and Tans and 2 (6.06%) Rubies.

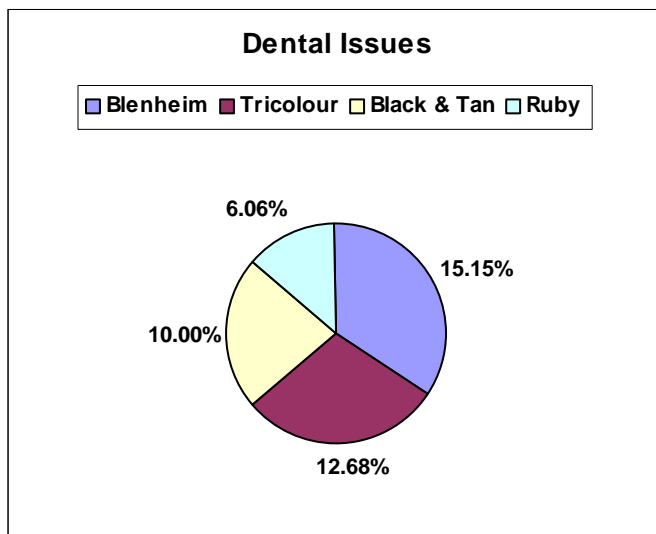


Figure 16 - Colour Distribution for Dental Issues

The youngest reported age was 1 year and the oldest 13 years. These figures do not indicate the age of the initial onset of Dental Issues.

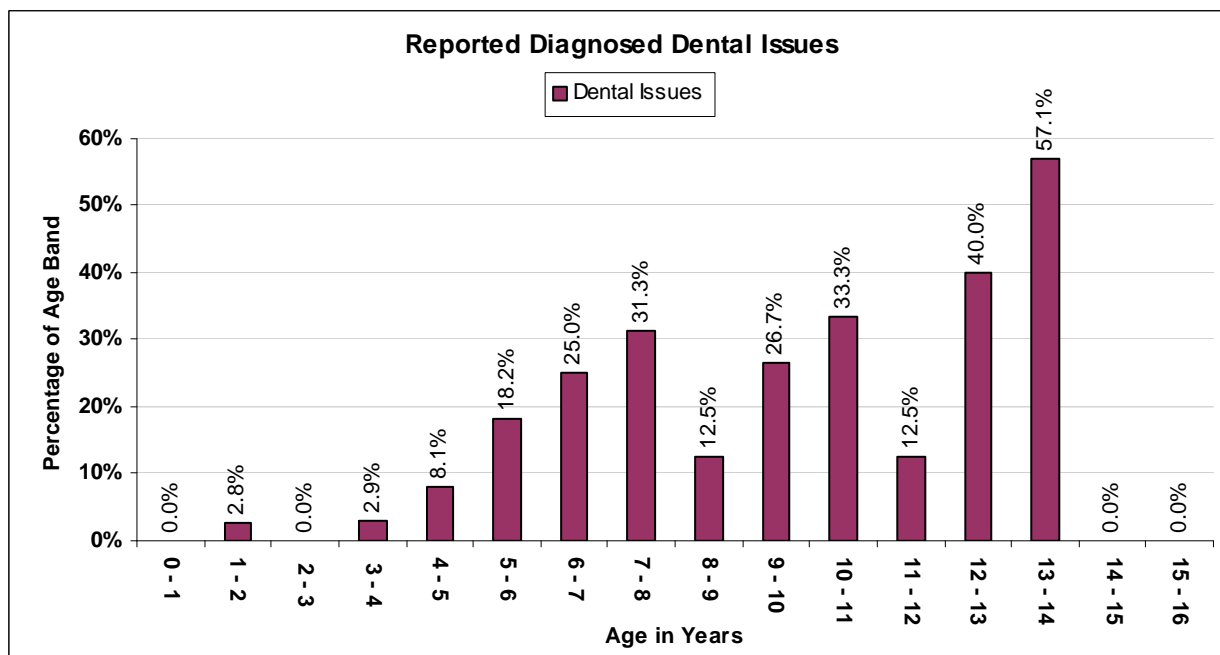


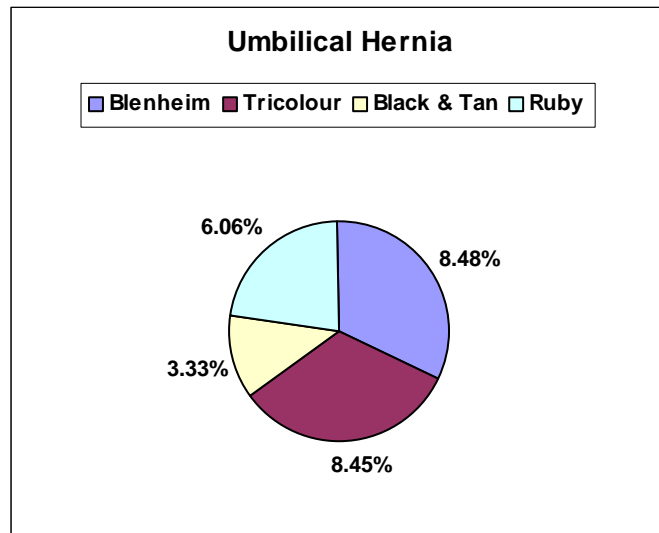
Figure 17 - Diagnosed Dental Issues as a Percentage of Age Band

**4.3.30. Umbilical Hernia**

23 (7.7%) owners reported that their Cavalier had been diagnosed with an **Umbilical Hernia**.

There were 9 dogs and 14 bitches reported as affected.

Of those reported, there were 14 (8.48%) Blenheims, 6 (8.45%) Tricolours, 1 (3.33%) Black and Tans and 2 (6.06%) Rubies.



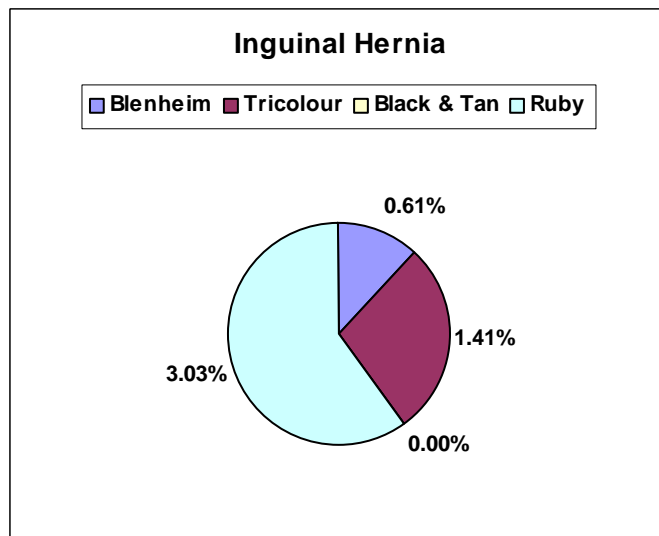
**Figure 18 - Colour Distribution for Umbilical Hernia**

The youngest reported age was 6 months and the oldest 11 years. These figures do not indicate the age of the initial onset of Umbilical Hernia.

**4.3.31. Inguinal Hernia**

3 (1.0%) owners reported that their Cavalier had been diagnosed with an **Inguinal Hernia**.

Of those reported, there was 1 (0.61%) Blenheim bitch, 1 (1.41%) Tricolour dog and 1 (3.03%) Ruby bitch.



**Figure 19 - Colour Distribution for Inguinal Hernia**

The youngest reported age was 6 months and the oldest 4 years. These figures do not indicate the age of the initial onset of Inguinal Hernia.

**4.3.32. Colitis**

3 (1.0%) owners reported that their Cavalier had been diagnosed with **Colitis**.

There was 1 Ruby dog (3.03%) and 2 Blenheim bitches (1.21%) reported as affected.

The youngest reported age was 2 years and the oldest 5 years. These figures do not indicate the age of the initial onset of Colitis.

#### 4.3.33. Hemorrhagic Gastroenteritis

1 (0.3%) owner reported that their Blenheim Cavalier dog, (0.61%), aged 6 years 6 months, had been diagnosed with **Hemorrhagic Gastroenteritis**. This figure does not indicate the age of the initial onset of Hemorrhagic Gastroenteritis.

#### 4.3.34. Liver Disease

1 (0.3%) owner reported that their Black and Tan Cavalier dog, (3.3%), aged 5 years, had been diagnosed with **Liver Disease**. This figure does not indicate the age of the initial onset of Liver Disease.

#### 4.3.35. Kidney Disease

No (0%) owners reported that their Cavalier had been diagnosed with **Kidney Disease**.

#### 4.3.36. Diabetes

No (0%) owners reported that their Cavalier had been diagnosed with **Diabetes**.

#### 4.3.37. Cushing's Disease

No (0%) owners reported that their Cavalier had been diagnosed with **Cushing's Disease**.

#### 4.3.38. Pancreatic Deficiency

3 (1.0%) owners reported that their Cavalier had been diagnosed with **Pancreatic Deficiency**.

Of those reported, there were 2 (1.21%) Blenheims, 1 dog and 1 bitch and 1 (1.41%) Tricolour bitch.

The youngest reported age was 6 years 6 months and the oldest 10 years. These figures do not indicate the age of the initial onset of Pancreatic Deficiency.

#### 4.3.39. Allergy to Food

8 (2.7%) owners reported that their Cavalier had been diagnosed with an **Allergy to Food**.

There were 4 dogs and 4 bitches reported as affected.

Of those reported, there were 6 (3.64%) Blenheims, 1 (3.33%) Black and Tans and 1 (3.03%) Ruby.

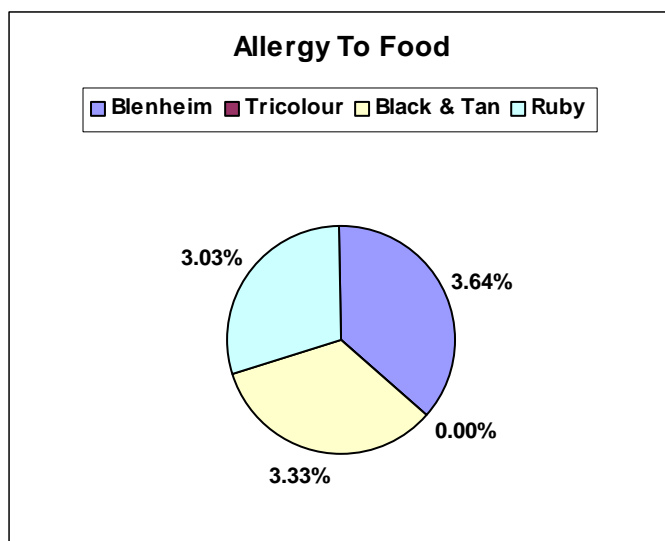


Figure 20 - Colour Distribution for Allergy To Food

The youngest reported age was 3 years 6 months and the oldest 11 years. These figures do not indicate the age of the initial onset of Allergy to Food.

#### 4.3.40. Unspecified pain

No (0%) owners reported that their Cavalier had been diagnosed with an **Unspecified Pain**.

#### 4.3.41. Any other condition not listed

Owners were given the option of identifying any other condition not specifically listed on the form. 35 owners responded with additional conditions or expansion of the listed conditions. Some owners used this section to identify the grades resulting from DNA and screening tests. The 35 unedited responses are listed in ANNEX B.

Analysis of this item is subjective and as such they have been categorised by the most identifiable condition.

Category	No of Reports	Annex B
Acidosis	1	B.1
Allergy	5	B.2
Ears	2	B.3
Eyes	5	B.4
Fertility	5	B.5
General	2	B.6

Category	No of Reports	Annex B
Heart	4	B.7
Hernia	3	B.8
Patella	1	B.9
Skeletal	6	B.10
Spleen	1	B.11

## ANNEX A. CENSUS FORM

**GENERAL QUESTIONS** - Those marked with an asterisk are mandatory

NAME OF OWNER		
PET NAME/CALL NAME OF DOG		
AGE *	COLOUR *	SEX *

Do you consider this Cavalier is happy?	Yes	No
---	-----	----

**OBSERVATIONS** – for you to tell us about this Cavalier – please tick ANY that apply:

Correct Weight	Overweight	Underweight	Greedy	Poor eater
Friendly	Sociable	Obedient	Aggressive	Noisy
Excitable	Nervous	Lazy	Active	Spayed /Neutered
Regularly Exercised	Exercise Limited	Lives in the house	Lives in a kennel	Lives part house/part kennel
Good hearing	Slightly deaf	Totally deaf		

### HEALTH QUESTIONS

Has this Cavalier ever been **DIAGNOSED BY A VET** to have any of these conditions?  
Please tick any that apply.

Heart Condition	Chiari Malformation
Hereditary Cataract	Syringomyelia
Juvenile Cataract	Epilepsy
Multi Retinal Dysplasia	PSOM (Primary Secretory Otitis Media) Also known as “glue ear)
Cherry Eye	Hearing Loss
Distichiasis (extra eyelashes)	Dry Eye/Curly Coat
Cancer	Episodic Falling Syndrome
Skeletal problems	Dental Issues
Luxating Patella (Slipping Patella)	Umbilical Hernia
Hip Dysplasia	Inguinal Hernia
Arthritis	Colitis
MMM (Masticatory Muscle Myositis)	Hemorrhagic Gastroenteritis
Auto-immune disease	Liver Disease
BAOS (Brachycephalic Airways Obstruction)	Kidney Disease
Infertility	Diabetes
Birthing difficulties, i.e. required caesarean section	Cushing’s Disease
Chryptorchidism (no testicles descended in the scrotum)	Pancreatic Deficiency
Monorchidism (one testicle )	Allergy to Food
Pyometra	Unspecified pain
Any other condition not listed – please specify	

## ANNEX B. OTHER CONDITIONS - RESPONSES

Owners were given the option of identifying any other condition not specifically listed on the form. The 35 unedited responses are listed below. Analysis of these responses is subjective and as such they have been categorised by the most identifiable condition. Some owners used this section to identify the grades resulting from DNA and screening tests.

### B.1. Acidosis

- Acidosis

### B.2. Allergy

- Allergy to fleas, and grass clippings
- Atopy fleas
- Eosinophilic glossitis - generalised allergic disease
- Seasonal Allergies since move to Perth - symptoms include inflammation of eyes and ears
- Very healthy except suffers a bit from flea allergy dermatitis

### B.3. Ears

- Completely deaf. Papered dog, but much larger than breed guidelines - approx 13 kg and skinny/underweight for size. 50-60 cm base of skull to base of tail.
- Pseudomonas (sp?) in one ear

### B.4. Eyes

- Cataracts
- Chronic Dry Eye
- Chronic Focal Granulomatous inflammation; COMS; Obstructive Hydrocephalus
- Eye injury
- Slight dry eye

### B.5. Fertility

- C Section required as she was so large there was no space for contractions to gain momentum. She had eight surviving puppies in that her third and final litter. The previous litters had been of six and seven pups and needed no intervention.
- Comes into season every 4-5mths
- First puppy in litter deceased, decided on caesarean to ensure safe arrival of remaining 6 puppies.
- Had first litter by caesarean (large puppy), second litter naturally.
- She was spayed as she had primary inertia on her first litter.

### B.6. General

- A very healthy happy bitch, who will be bred from but not before she has absolute clearance from both our veterinary cardiologist and veterinary ophthalmologist. She already has patella clearance, and following pleasing HD scoring for several generations of her line, we are happy not to score her.
- Old age

### B.7. Heart

- Despite having clear (cardiologist) clear test reports, at the end of 2012 Angel suddenly developed a grade III murmur. Interestingly she had survived a nasty paralysis tick episode only two months earlier, and both the local vet and our cardiologist feel that this may be connected. Within a matter of only three months the murmur was rated as grade V and medication was commenced. She has not shown any symptoms at all since medication, although we keep a close eye on her, checking pulse and respiration rates together with our local vet checking her and we report all results to our cardiologist in New Zealand who runs regular clinics in NSW (which we assist with) and he is happy with her current condition.

- Heart Murmur diagnosed at 14, skin allergies since birth - controlled with meds and has full coat
- Just been found to have a grade 1 murmur when having teeth cleared. No enlargement of heart.
- She has a heart murmur diagnosed by Cardiologist - not MVD and not hereditary nor dangerous (?name).

#### **B.8. Hernia**

- Hernia
- Hernia has been repaired
- Ruby had an incisional hernia develop after her caesarean for a dead pup. This was repaired when neutered.

#### **B.9. Patella**

- Had knee/patella surgery before I owned him.

#### **B.10. Skeletal**

- Dobbie was born with a skull mid line deformation, due to being compromised in utero as one of a litter of eight puppies, all surviving. Dobbie was born tiny, smaller than a box of matches, and his head was clearly abnormal. He had an extended muzzle but normal short lower jaw, excessive molero (which has never closed but is radically narrowed). His skull is narrow, and with his long nose he has an atypical appearance of his head for this breed. He was hand reared, and became exceptionally well socialised as a result. Like my old girl Lisa (already entered in this census) Dobbie was never available for placement as I have no idea what his future holds. The fact that I still have him, and he appears totally healthy (although requires regular dental cleaning under GA due to his parrot mouth) he will be my constant companion for as long as he has a good quality of life. He was neutered at a young age for obvious reasons. He is a great diplomat for the breed and everyone who comes to view puppies or occasionally older Cavaliers for rehoming always want to adopt my special boy. However, he knows his bed is on my pillow!
- fontanel not fully closed (he was 10 days preemie); parrot mouth
- Pain in the neck, at top of the spine
- Prolapsed disc. Had spinal surgery. Fine now.
- Shoulder easily dislocates. One side only
- Spondylosis - spine & hips

#### **B.11. Spleen**

- Spleen bleed resulting in splenectomy. Scar tissue formation over the eyes



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