

Tibetan Spaniel Health Survey Report

Part I: Disease Counts

October 8, 2006

Report written by Arkendra De
Cornell University

Table of Contents

Section	Starting Page
Introduction.....	3
Sampling.....	3
Results.....	3
Appendix 1.....	6
Appendix 2.....	18

Introduction

Carol Srnka, Health Committee Chairperson of Tibetan Spaniel Club of America (TSCA), conducted a health survey to determine disease frequency of particular diseases for Tibetan Spaniels. The survey was thorough: respondents were asked to list the number of dogs with a particular disease, and approximately 65 different diseases were included in the survey. Also, there was another part to the survey that asked about factors such as feeding and anesthesia reactions.

I entered the data from the surveys, analyzed the data, and gave suggestions for the survey design.

The report is structured as follows. The next section discusses how the survey was conducted. The results section follows, and there are two appendices: one that contains graphs of results and another that ranks all the diseases for all the Tibetan Spaniels.

Sampling

For TSCA members, the survey was conducted by sending paper copies via mail. All members of TSCA and regional Tibetan Spaniel clubs were included in the survey. Each individual on the TSCA membership list was sent a survey. Some regional Tibetan Spaniel club members received the survey via e-mail. Any surveys not returned were treated as “missing at random”. Thus, the data that was received was treated as a random sample from the combined (TSCA and regional) member pool. In all, 98 surveys were returned. This means about 44% responded to the survey, which is a good response rate.

Results

Tables are listed below which summarize results. Titles for each table explain table content. There were 1341 Tibetan Spaniels reported among the 98 respondents.

Table 1: Most frequent disease for each disease category for all Tibetan Spaniels

<u>Disease Category</u>	<u>Most Frequent Disease</u>	<u>Percentage</u>
Cancer	Other Cancer Types	1.6
Cardiovascular	Congestive Heart Failure	1.0
Digestive	Retained Deciduous Teeth	11.0
Eyes	Cherry Eyes	16.0
Endocrine	Hypothyroidism	0.89
Immune	Vaccine Reaction	4.3
Musculoskeletal	Umbilical Hernia	25.5
Neurological	Intervertebral Disk Disease	2.8
Reproductive	Fading Puppies	4.5
Respiratory	Elongated Soft Palate	1.6
Skin	Subepidermal Cysts	2.1
Urinary	Other Urinary Types	0.89

Although percentages are listed, these percentages do not reflect the percentage of Tibetan Spaniels with a particular disease. This is because the same dog can be placed in more than one disease category (this did happen in the survey). For example, a dog with retained deciduous

teeth could also be placed in the intervertebral disk disease category. This would mean that the intervertebral disk disease percentage would reflect dogs with intervertebral disk disease and retained deciduous teeth, not just intervertebral disk disease. Percentages are meant to be used to rank diseases (compare disease frequency relative to each other). This is done in the next two tables.

Table 2: The five most common diseases (and disease category which disease belongs to) for all Tibetan Spaniels

<u>Disease Category</u>	<u>Disease</u>
Musculoskeletal	Umbilical Hernia
Eye	Cherry Eye
Digestive	Retained Deciduous Teeth
Eye	Dystichia
Reproductive	Fading Puppies

Table 3: The six least common diseases (and disease category which disease belongs to) for all Tibetan Spaniels

<u>Disease Category</u>	<u>Disease</u>
Endocrine	Addison's Disease
Immune	Hemolytic Anemia
Musculoskeletal	Elbow Dysplasia
Cardiovascular	Other Cardiovascular Types
Urinary	Juvenile Renal Disease
Eye	Progressive Renal Atrophy

All these diseases have 0 frequency.

Table 4: The top three vaccine reactions for all Tibetan Spaniels

Rabies
Leptosporosis
DHLP

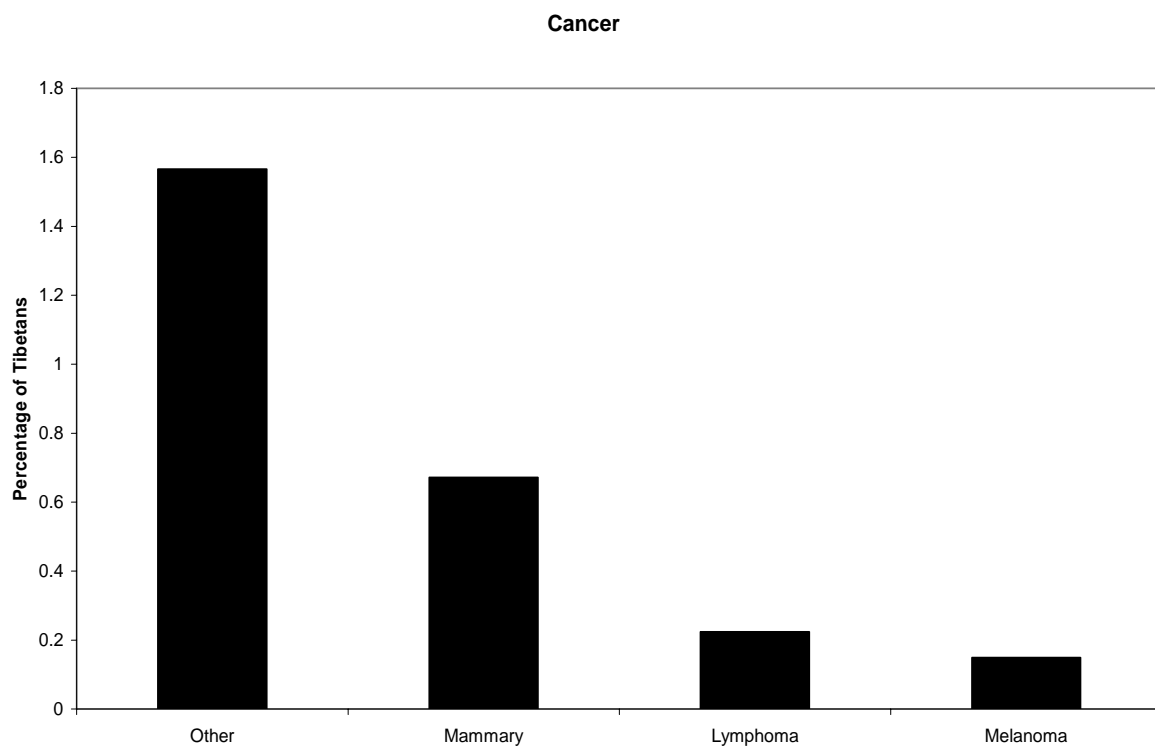
Table 5: Most frequent disease for each disease category for male Tibetan Spaniels

<u>Disease Category</u>	<u>Disease</u>
Cancer	Other Cancer Types
Cardiovascular	Congestive Heart Failure
Digestive	Retained Deciduous Teeth
Endocrine	Hypothyroidism
Eye	Cherry Eye
Immune	Vaccine Reaction
Musculoskeletal	Umbilical Hernia
Neurological	Intervertebral Disk Disease
Reproductive	Fading Puppies
Respiratory	Stenotic Nares
Skin	Subepidermal Cysts
Urinary	Other Urinary Types

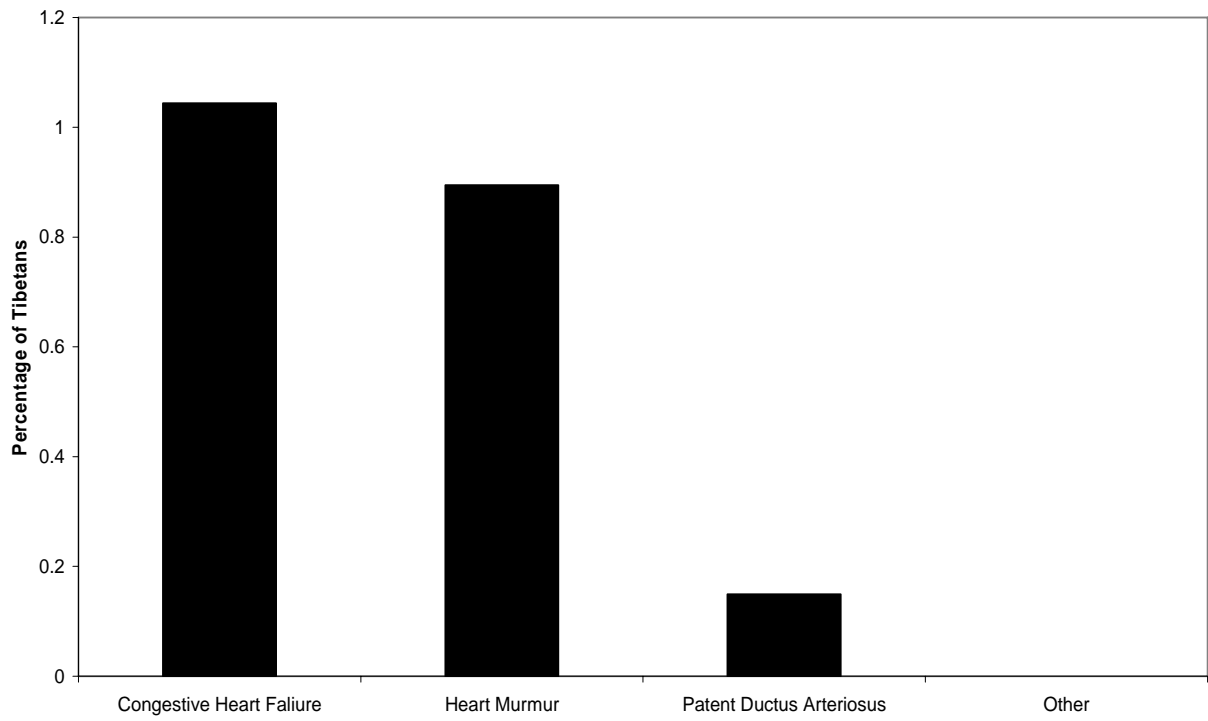
Table 6: Most frequent disease for each disease category for female Tibetan Spaniels

<u>Disease Category</u>	<u>Disease</u>
Cancer	Other Cancer Types and Mammary Cancer
Cardiovascular	Heart Murmur and Congestive Heart Failure
Digestive	Retained Deciduous Teeth
Endocrine	Hypothyroidism
Eye	Cherry Eye
Immune	Vaccine Reaction
Musculoskeletal	Umbilical Hernia
Neurological	Intervertebral Disk Disease
Reproductive	Fading Puppies
Respiratory	Elongated Soft Palate
Skin	Subepidermal Cysts
Urinary	Other Urinary Types

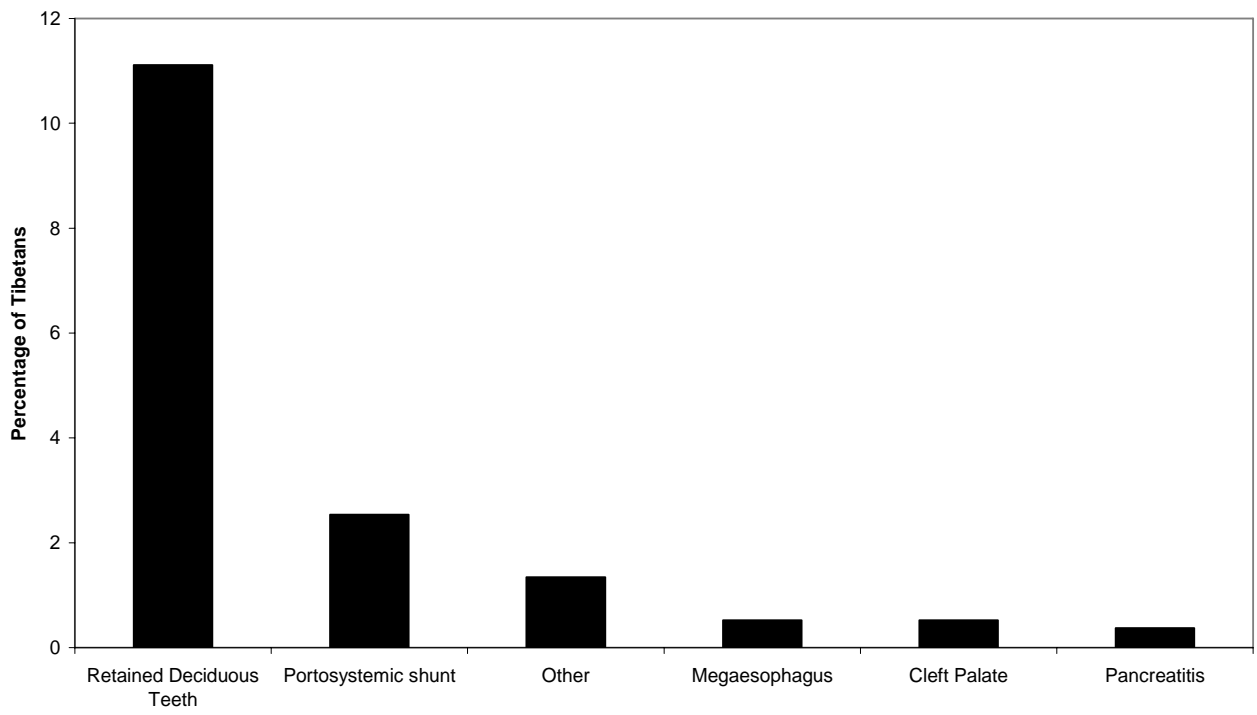
Appendix 1: graphs showing ranks of all diseases for all categories



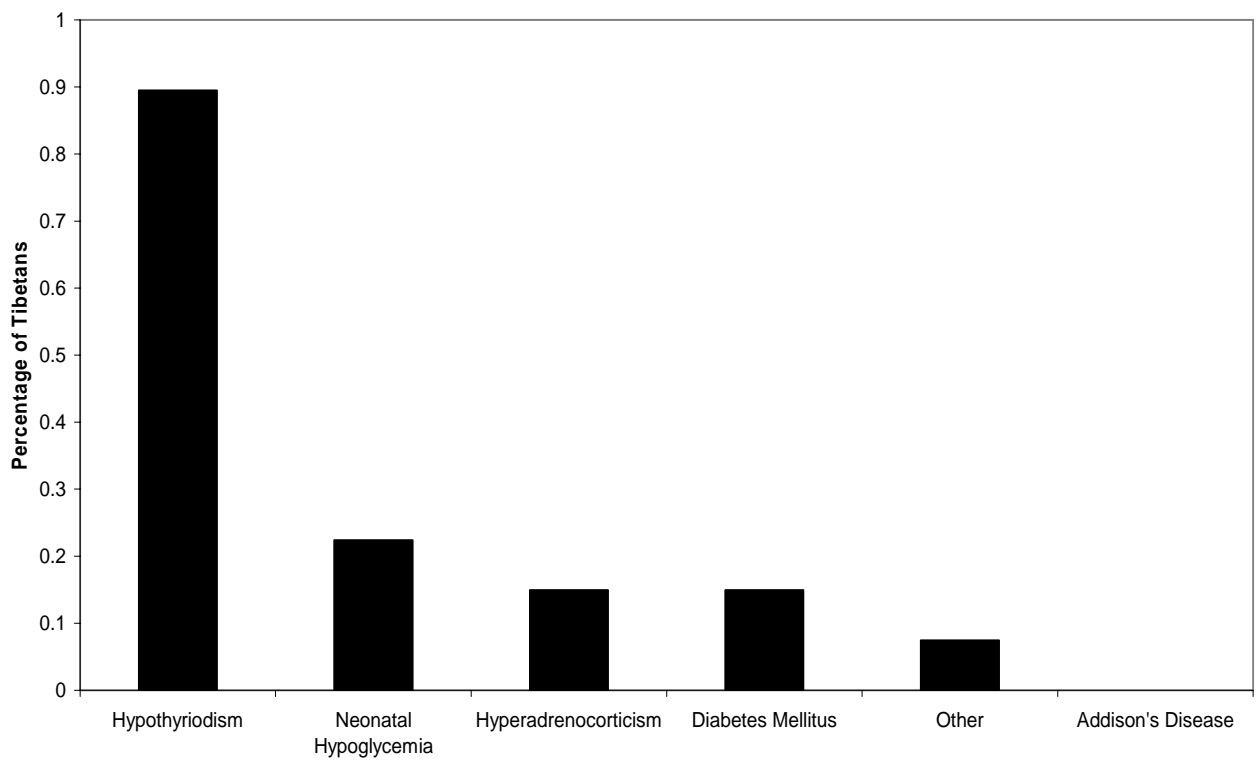
Cardiovascular



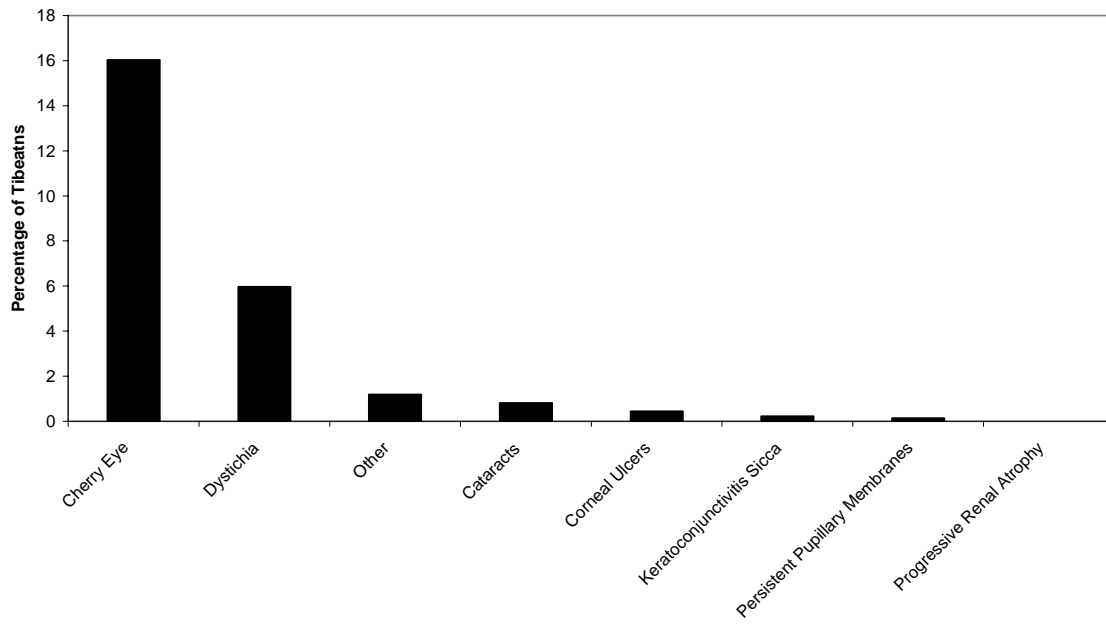
Digestive



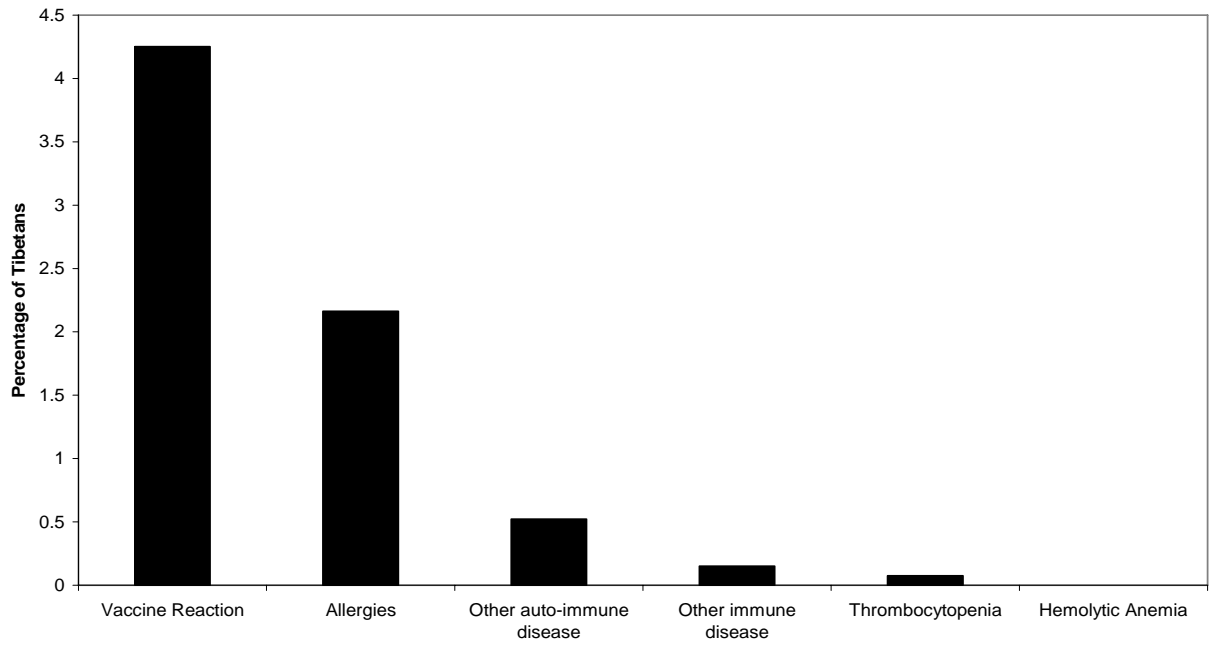
Endocrine



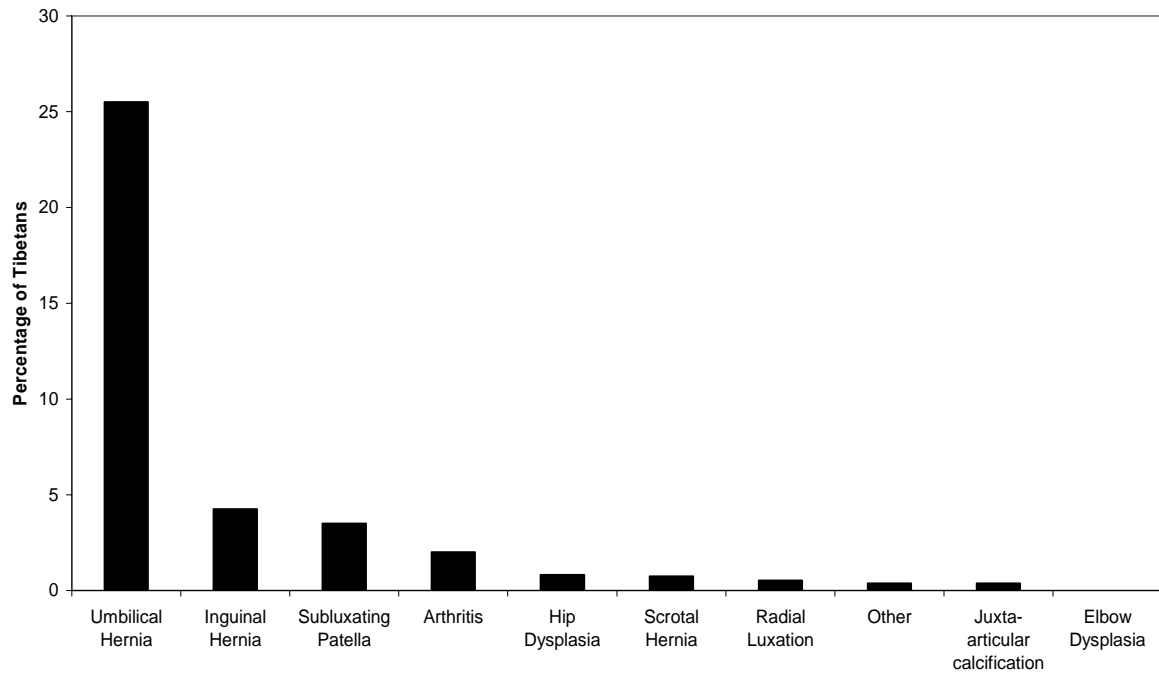
Eye



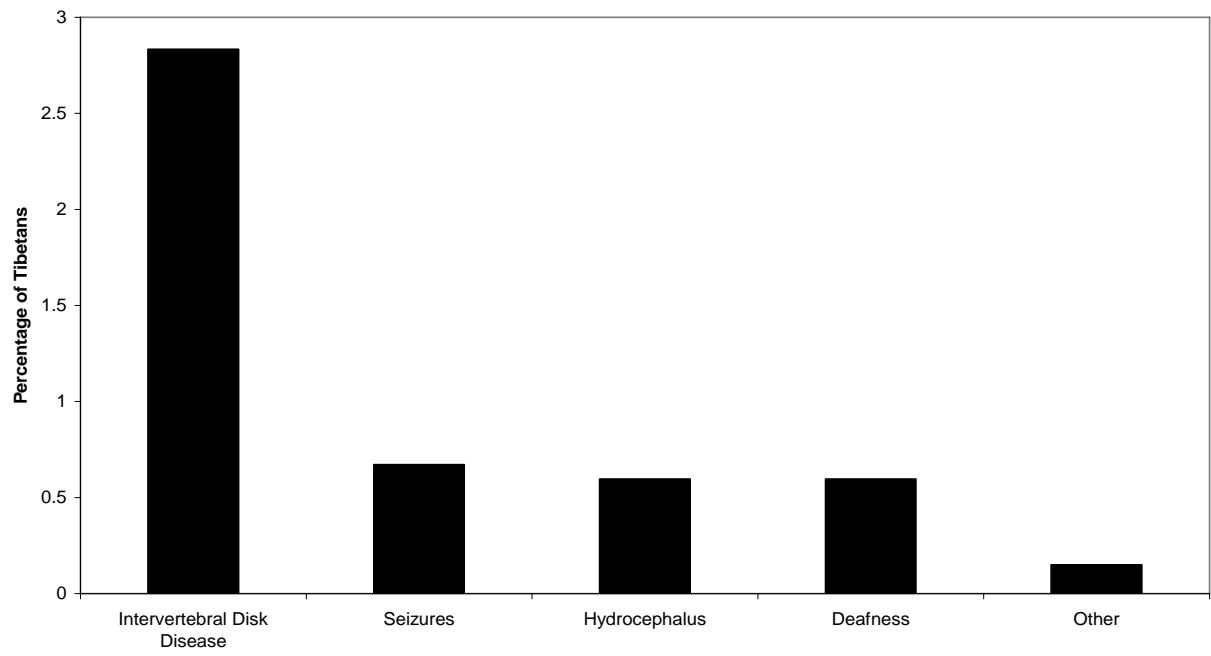
Immune



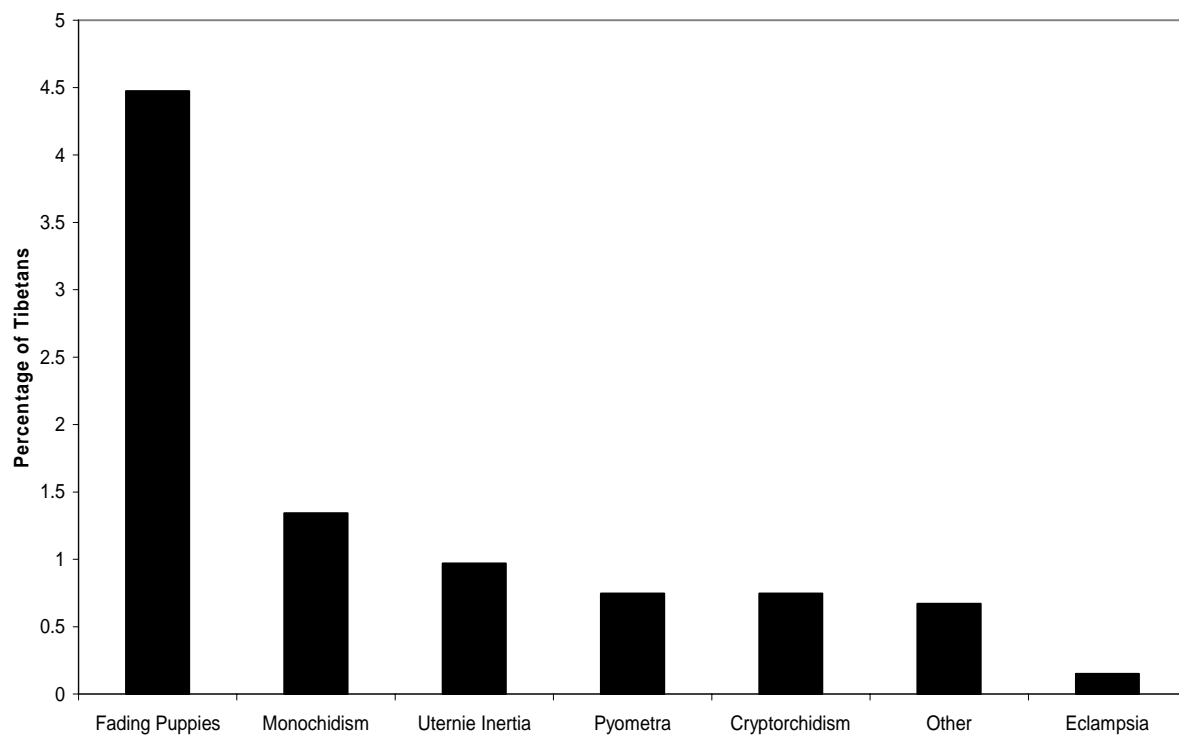
Musculoskeletal



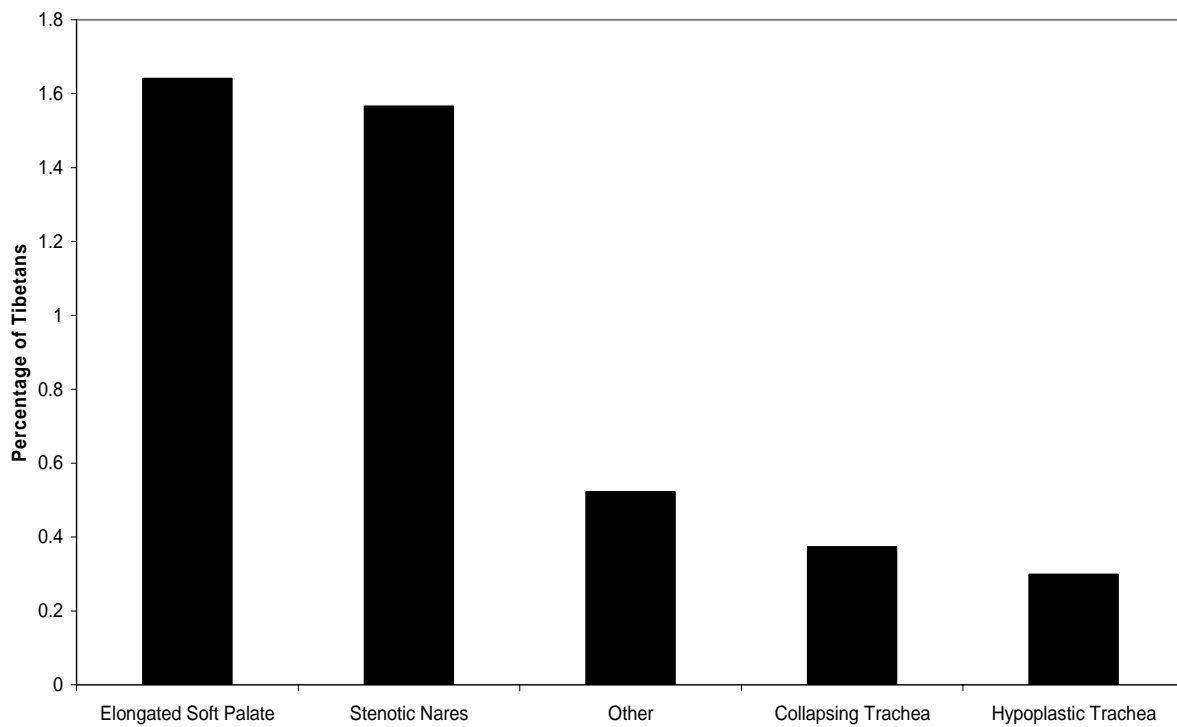
Neurological



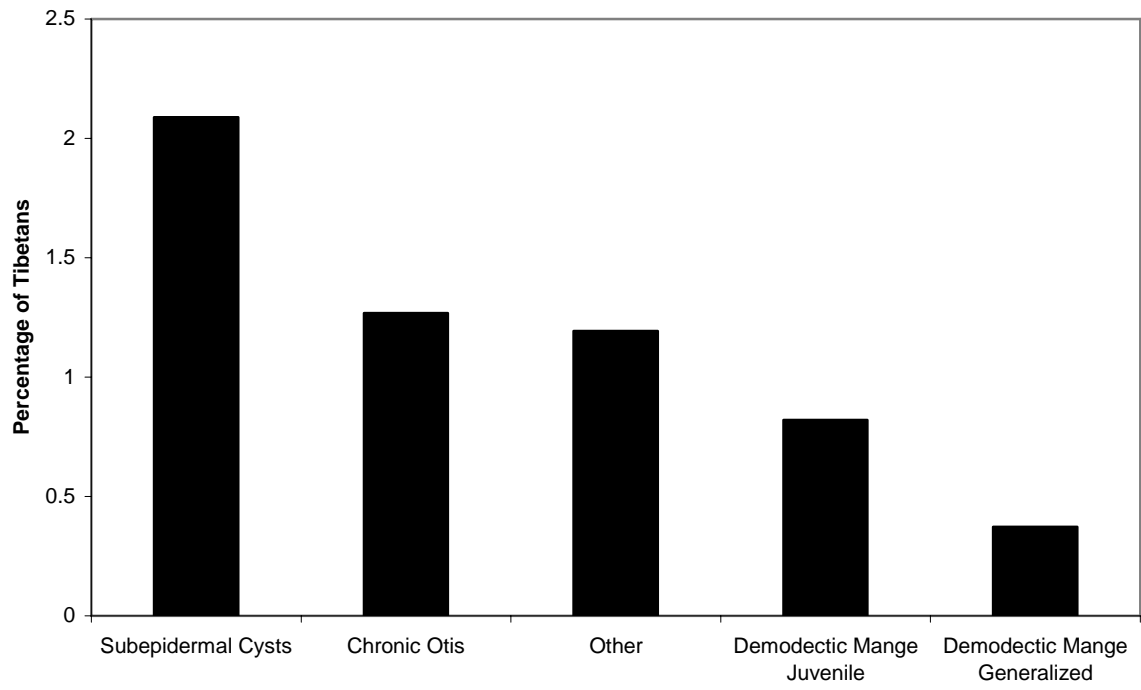
Reproductive



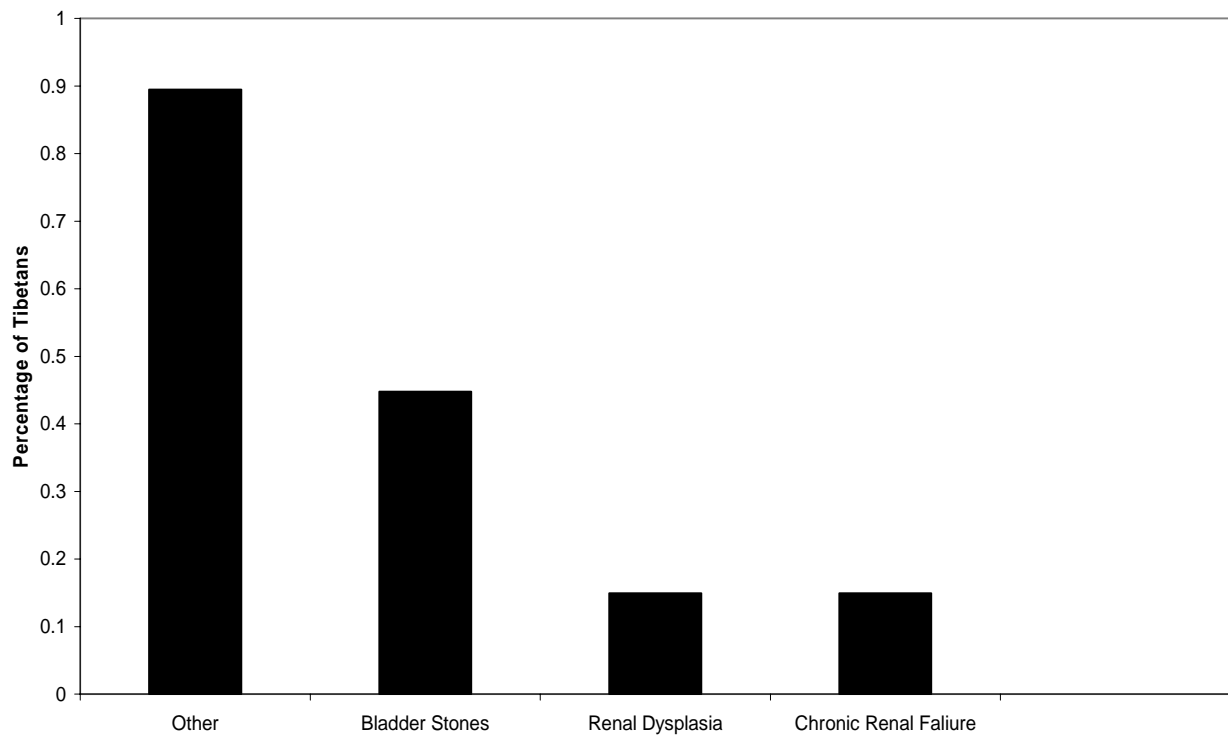
Respiratory



Skin



Urinary



Not shown: Juvenile Renal Disease (0% reported)

Appendix 2: Ranking of all the diseases for all Tibetan Spaniels

<u>Condition</u>	<u>Percent affected</u>
Umbilical Hernia	25.5
Cherry Eye	16
Retained Deciduous Teeth	11
Dystichia	6
Fading Puppies	4.5
Vaccine Reaction	4.25
Inguinal Hernia	4.25
Subluxating Patella	3.1
Intervertebral Disk Disease	2.8
Portosystemic shunt	2.5
Allergies	2.4
Subepidermal Cysts	2.1
Arthritis	2.1
Elongated Soft Palate	1.65
Stenotic Nares	1.61
Cancer Other	1.6
Monorchidism	1.45
Digestive Other	1.4
Chronic Otis	1.3
Skin Other	1.2
Eye Other	1
Congestive Heart Failure	1
Uterine Inertia	1
Urinary Other	less than 1.0 (from here down)
Hypothyroidism	
Heart Murmur	
Hip Dysplasia	
Demodectic Mange Juvenile	
Cataracts	
Scrotal Hernia	
Pyometra	
Cryptorchidism	
Seizures	
Reproductive Other	
Mammary	
Hydrocephalus	
Deafness	
Respiratory Other	
Radial Luxation	
Other auto-immune disease	
Megaesophagus	
Cleft Palate	
Corneal Ulcers	
Bladder Stones	
Pancreatitis	

Musculoskeletal Other	
Juxta-articular calcification	
Demodectic Mange Generalized	
Collapsing Trachea	
Hypoplastic Trachea	
Neonatal Hypoglycemia	
Lymphoma	
Keratoconjunctivitis Sicca	
Renal Dysplasia	
Persistent Pupillary Membranes	
Patent Ductus Arteriosus	
Other immune disease	
Neurological Other	
Melanoma	less than 0.1 (from here down)
Hyperadrenocorticism	^
Eclampsia	^
Diabetes Mellitus	^
Chronic Renal Failure	^
Thrombocytopenia	^
Endocrine Other	^
Progressive Renal Atrophy	0
Juvenile Renal Disease	0
Hemolytic Anemia	0
Elbow Dysplasia	0
Cardiovascular Other	0
Addison's Disease	0