

Burmese Kitten Information Project

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Breed Specific Data

- ◆ Important to generate breed-specific data
 - What is average: litter size, birth weights, etc
 - Frequency of problems such as dystocia
 - Identify congenital defects, emerging problems
- ◆ Little breed-specific data is available
 - Most information from research colonies
 - Most pedigreed cat research prior to 1995
 - Need up to date surveys

Breed Specific Data

- ◆ Litter size, stillbirth rate
- ◆ Birth weights
- ◆ Congenital defects
- ◆ Kitten survival at 4 weeks and 6 months
- ◆ Causes of kitten illness/death
- ◆ Effect of age of queen/tom
- ◆ Effect of queen parity

Burmese Kitten Info Project

- ◆ Web-based enrollment and data submission
- ◆ Includes litters born from June 1, 2003 to May 31, 2004
- ◆ Includes both Burmese and European Burmese breeds

[www.catvet.homestead.com/
Burmese1.html](http://www.catvet.homestead.com/Burmese1.html)

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Procedure:

- ◆ Enroll your cattery and receive a breeder number to submit data
- ◆ For each litter:
 - Enroll the litter soon after birth
 - Report at 4 weeks and 6 months of age

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- ◆ Breeder enrollment:
 - 101 enrolled, 67% submitted data
 - 53% from United States/Canada
 - Others from U.K., Europe, Australia, NZ

- ◆ Breeding programs:
 - 53 % European
 - 28 % Traditional
 - 20 % Contemporary

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	C Bur	E Bur	T Bur	Total
# breeders	12	35	20	67
# litters	53	63	94	210
# kittens	206	376	355	937
Kits/litter	3.9	6.0	3.8	4.5
Stillbirth*	11.1%	7.2%	6.5%	7.8%
C-sections**	<1%	11%	<1%	4%

* Is NOT statistically significant

** E Bur have statistically greater chance of dystocia

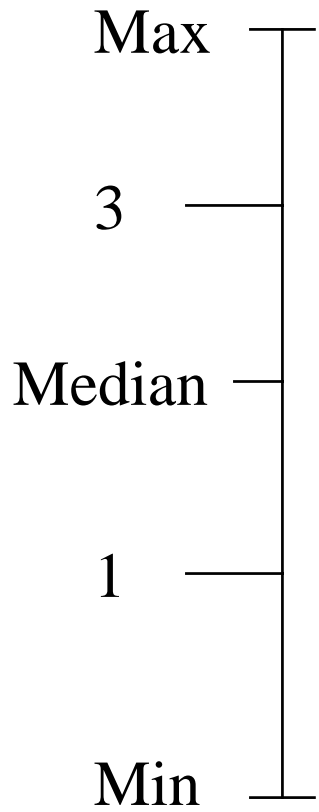
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Breed	Kits/Litter	Stillbirths	C-sections
C Bur	3.9	11.1%	<1%
E Bur	6.0	7.2%	11%
T Bur	3.8	6.5%	<1%
BEN	4.0	6%	3%
BIR	3.6	4%	9%
NFO	4.5	4%	3%
RAG	4.4	5%	3%
OCI	4.3	3%	<1%

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Birth weights of live born kittens in grams			
	C Bur	E Bur	T Bur
F: aver	80.4 (n=81)	81.6 (144)	81.3 (110)
F: 3 rd Q	89.0	92.0	90.0
M: aver	85.4 (95)	85.1 (170)	87.1 (138)
M: 3 rd Q	90.5	94.0	94.8
All: aver	83.1 (176)	83.5 (314)	84.5 (248)
All: 3 rd Q	90.0	92.3	93.7

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Max	120.0	124.0	119.3
3	90.0	92.3	93.7
Median	80.5	84.0	85.0
1	-	-	-
Min	50.0	37.8	42.4
	C Bur	E Bur	T Bur

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Breed	# kittens	Aver weight	3 rd Quartile
C Bur	176	83.1 grams	90.0 grams
E Bur	314	83.5	92.3
T Bur	241	84.5	93.7
BEN	523	94.9	104.0
BIR	424	95.8	106.0
NFO	303	106.3	118.0
RAG	293	96.6	105.1
OCI	759	98.9	110.0

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◆ Congenital Defects:

- Flat chest kitten (FCK)
- Craniofacial defect (head defect)
- Dermoids: 10 kittens from 3 C Bur breeders
- Cherry eye: 3 kittens (1 T Bur, 2 C Bur)
- Small numbers: open abdomen, persistent pupillary membrane, umbilical hernia, cleft palate, syndactyly (fused toes), various limb defects, etc

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Flat chest kitten (FCK) defect:

- ◆ Affects most breeds, non-pedigreed cats
- ◆ Burmese Cat Club: 3-4% of Burmese born in UK have FCK (1990s data)
- ◆ Defect varies from mild to life-threatening
- ◆ Mild cases resolve totally or partially
- ◆ Inheritance/other factors not understood

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FCK	Male	Female	Total	%
C Bur	2	4	6	2.9
E Bur	3	5	8	2.1
T Bur	9	5	14	3.7
Breed Totals	14	14	28	3.0

No significant difference among types

Males and females equally affected

Prevalence similar to UK Burmese

Prevalence similar to Bengals (2.4% of 617 kittens)

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FCK Kittens:

- ◆ Birth weight: n=19
 - Average 78.6 grams
 - Lower than non-affected kittens in same litters, but not statistically significant
- ◆ Survival at 4 weeks: n=27
 - 48% of FCK kittens did not survive to 4 weeks of age (BEN 31%, n=13)
 - Lower than BUR breed average survival at 4 weeks

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FCK Kittens	
Type	Survival @ 4 weeks, N=27
C Bur	5/5, 100% survival
E Bur	3/8, 38% survival
T Bur	6/14, 43% survival

Numbers too low to determine statistical significance

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Craniofacial defect:

- ◆ Associated with C Bur, American SH, Bombay
- ◆ Autosomal recessive inheritance established by Dr. Lyons
- ◆ Cause of increasing isolation of Burmese breeding populations over last decades

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Craniofacial defect kittens		
	Number	Average Birth Weight
Male	27	84.5 grams
Female	18	83.4 grams
Unknown	3	-
Totals	48 (23%)	84.1 grams
Breed	-	83.1 – 84.6 grams

Gender difference not statistically significant

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4-week survival data:

- ◆ Most critical time for kitten losses is during first few weeks
- ◆ Causes of kitten losses include:
 - Stillbirths
 - Infectious diseases
 - Congenital defects
 - Dystocia
 - Trauma

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4 wk data	C Bur	E Bur	T Bur
Total kittens	153	338	258
Alive 4 weeks	58% (75%*)	87%	78%
Live born kittens	133	315	238
Alive 4 weeks	67% (91%*)	93%	85%

* Excluding craniofacial defect kittens

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Breed	4-week survival (incl. Stillbirths)
C Bur	58%
E Bur	87%
T Bur	78%
BEN	80%
BIR	88%
NFO	86%
OCI	88%
RAG	90%

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- ◆ What remains to be done?
 - Finish enrolling litters born June 1, 2003 to May 31, 2004
 - Get all 4-week and 6-month reports filed
- ◆ It will take at least to end of 2004 to accomplish these goals
- ◆ Then: compilation of final data and statistical analysis, production of final report

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- ◆ Recommendations for Burmese breeders:
 - Periodically conduct similar surveys of breed health for monitoring purposes; data is needed to make rational decisions !
 - Support research into the craniofacial defect and the flat chest defect
 - Keep good cattery records
 - Cooperate to re-unite the Burmese gene pool, decrease disease incidence and promote the health of the breed

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Thank you !

- ◆ All the breeders who participated
- ◆ NABB
- ◆ Burmese and European Burmese Breed Councils