





































































			Freie Universität
Quantitative aspects			
Starch digestibility in dogs in % wheat, uncooked wheat, processed maize, uncooked maize, processed oats, uncooked oats, processed rice, cooked brackets: ileal digestibility	91-97 (97) 99 (99) 94-99 (94) 99 (98) 94 96 98	potatoe, uncooked potatoe, cooked banana, raw banana,baked bread tapioca, crude tapioca, cooked	0-20 (0) 95 (94) 57 78 74-79 90 (50-70) 99 (94)
			36

pparent digestibility in dog	zs, %			
	total	ileal	total	
Meat, fresh	98	96	1-2	
Liver, lung, fresh	95	93	2	
Milk	95			
Tribe	93	88	5	
Greave meal	93	85	8	
Tendons, cartilage	90-95			
Bone collagen, isolated	94			
Bone	33-46			
Egg yolk, raw	94			
Egg white, raw	50-70			
Egg white, cooked	90			
Fishmeal	83-89			
Meat meal	90	86	4	
Curd	85	80	5	
Feather meal. raw	50-65			
Horn meal	60			
Gluten	90-94	88-90	2-4	
Sova meal	84	80	4	
Sova isolate	94	91	3	
Peas	85		5	
Peanut meal	80			
Field beans	74	65	9	
Vegetables	63	05	5	
· CBCIMBICS	05			

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F	at digestion				
	Apparent fat o	ligestibility, %			
			_		
	Bovine	84-99	Soya	96	
	Porcine	96	Soy oil, fried	93	
	Goose	98	Peanut	97	
	Fish	97	Linseed	97	
	Butter	95-97	Cotton	97-99	
			Corn	97	
			Olives	98	
			Coconut	97	
				01	
					38







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Co-morbidities				
	Disease	Obese	Overweight	Normal/
		(1,099)	(6,303)	underweight
 Overweight 				(14,353)
and obesity	Arthritis/Osteoarthritis	4.2%	4.0%	2.4%
and obesity	Dermatopathy	18.9%	18.6%	17.2%
	Diabetes mellitus	0.7%	0.4%	0.3%
in dogs	Dvstocia	0.0%	0.1%	0.2%
in dogo	Gastrointestinal disease	6.6%	7.3%	7.3%
	Heart disease	3.8%	3.4%	3.9%
 34% of adult 	Hypertension	0.0%	.08%	.03%
0470 01 addit	Hyperadrenocortism	0.6%	0.5%	0.2%
	Hypothyroidism	3.3%	1.5%	0.8%
dogs (n =	Intervertebral disc disease	1.7%	2.0%	1.8%
4090 (ii –	Lameness	4.3%	3.7%	2.9%
	Lower urinary tract disease	3.6%	3.6%	3.0%
21.754)				
_ ,, , , ,	Musculoskeletal disease	8.6%	8.3%	6.1%
	Neoplasia	10.3%	7.6%	5.3%
	Oral disease	34.1%	30.5%	25.7%
	Pancreatitis	0.9%	0.5%	0.4%
	Paresis/Ataxia	0.3%	0.2%	0.3%
Lund et al. 2006	Renal disease	1.1%	0.8%	0.9%
01 01 01 01 000	Reproductive disease	0.5%	1.0%	1.4%
	Respiratory disease	3.5%	3.2%	3.0%
	Ruptured cruciate ligament	1.0%	1.1%	0.5%
	Tracheal collapse	0.4%	0.2%	0.1%
				42













En ourish o dout		Freie Universität
Energiebedarf		
 Energy requirement mostly ▶ 		Age
Energy, MJ/kg ^{0,75} /d	< 6 y	> 8 y
Cairn Terrier Labrador Retriever Beagles Daxhund, Westhighland White Terrier	520 608 497 524	415 393 610 453
		Taylor et al. 1995
Photo: https://www.petsmartcharities.org/adoption-stories/senio	or-dog-adoptions	49





















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Outline		
Adjunct therapy	Epidemiology	
Dietetics Obesity epidemic?	Causes	
Owner role	Consequences	
	60	





















Protein intake and growth				
- goal:	- goal: adequate supply with all essential amino acids			
- defici	ency:	decreased growth rates, fattening extreme deficiency: cachexia		
- exces	SS:	no detrimental effects on skeletal development (NAP et al. 1991)		
			71	

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Adult	Diet composition	Growth
	I. Proteins	
35-45 %		45-55 %
45-55 %	II. Cereals	35-45 %
5 %	III. Fibre	5 %
5 %	IV. Oil	5 %
0,5 g/kg BW/Tag	V. Vitamins, minerals	2,5->1,5->0,7 g/kg BW/d 3 ->6 ->12 Months
		72



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Nutrient levels	in co	mmercial diets fo	or growing dogs	5
		Dry food	Canned food	Commercial
in 100 a		1,6 MJ/100 g	0,5 MJ/100 g	products
in io g				(Dry)
Protein	g	20–23	6–7	24–36
Calcium	g	0,8–1,2	0,3–0,4	0,8–1,7
Phosphorus	g	0,6–1	0,2–0,3	0,7–1,3
Vitamin A	IU	800-1.200	160–300	925–2.200
Vitamin D	IU	70–90	13–25	61–250
				74









Distatiss		Freie Universität
Dietetics		
Possibilities	Advantage	Disadvantage
Total food deprivation	rapid weight loss	health risks, impracticable
Reduction of the amount of food	simple	insufficient nutrient supply, lack of satiety
Weight loss diet	long term benefit	amount of feces, acceptance
		79

























