

Type	Kcal × kg BW ^{0.75}
Older laboratory dogs or older active pet dogs or laboratory Newfoundlands	105

^aDogs kept in a domestic environment with strong stimulus and ample opportunity to exercise, such as dogs in multiple dog households in the country or in a house with a large yard.

^bDogs kept in a domestic environment with little stimulus and opportunity to exercise. Requirements of older or overweight dogs may still be overestimated.

TABLE 15-5 Nutrient Requirements of Adult Dogs for Maintenance

Nutrient	Minimal Requirement			Adequate Intake			Recommended Allowance			Safe Upper Limit		
	Amt./ kg DM (=4,000 kcal) ^a	Amt./ 1,000 kcal ME ^b	Amt./ kg BW ^{0.75}	Amt./ kg DM (=4,000 kcal) ^a	Amt./ 1,000 kcal ME ^b	Amt./ kg BW ^{0.75}	Amt./ kg DM (=4,000 kcal) ^a	Amt./ 1,000 kcal ME ^b	Amt./ kg BW ^{0.75}	Amt./ kg DM (=4,000 kcal) ^a	Amt./ 1,000 kcal ME ^b	Amt./ kg BW ^{0.75}
<i>Crude Protein (g)</i>	80	20	2.62				100	25	3.28			
<i>Amino Acids</i>												
Arginine (g) ^c	2.8	0.70	0.092				3.5	0.88	0.11			
Histidine (g)	1.5	0.37	0.048				1.9	0.48	0.062			
Isoleucine (g)	3.0	0.75	0.098				3.8	0.95	0.12			
Methionine (g)	2.6	0.65	0.085				3.3	0.83	0.11			
Methionine & Cystine (g)	5.2	1.30	0.17				6.5	1.63	0.21			
Leucine (g)	5.4	1.35	0.18				6.8	1.70	0.22			
Lysine (g)	2.8	0.70	0.092				3.5	0.88	0.11			
Phenylalanine	3.6	0.90	0.12				4.5	1.13	0.15			
Phenylalanine & Tyrosine (g) ^d	5.9	1.48	0.19				7.4	1.85	0.24			
Threonine (g)	3.4	0.85	0.11				4.3	1.08	0.14			
Tryptophan (g)	1.1	0.28	0.036				1.4	0.35	0.046			
Valine (g)	3.9	0.98	0.13				4.9	1.23	0.16			
<i>Total Fat (g)</i>				40	10	1.3	55	13.8	1.8	330 ^a	82.5	10.8
<i>Fatty Acids</i>												
Linoleic Acid (g)				9.5	2.4	0.3	11	2.8	0.36	65 ^a	16.3	2.1
α -Linolenic Acid(g) ^e				0.36	0.09	0.012	0.44	0.11	0.014			
Arachidonic Acid (g)												
Eicosapentaenoic + Docosahexaenoic Acid (g) ^f				0.44	0.11	0.03	0.44	0.11	0.03	11 ^a	2.8	0.37
<i>Minerals</i>												
Calcium (g)	2.0	0.50	0.059				4.0	1.0	0.13			
Phosphorus (g)				3.0	0.75	0.10	3.0	0.75	0.10			
Magnesium (mg)	180	45	5.91				600	150	19.7			
Sodium (mg)	300	75	9.85				800	200	26.2	>15 g		
Potassium (g)				4.0	1.0	0.14	4.0	1.0	0.14			
Chloride (mg)				1,200	300	40	1,200	300	40	23.5 g		
Iron (mg) ^g				30	7.5	1.0	30	7.5	1.0			
Copper (mg) ^g				6	1.5	0.2	6	1.5	0.2			
Zinc (mg)				60	15	2.0	60	15	2.0			
Manganese (mg)				4.8	1.2	0.16	4.8	1.2	0.16			
Selenium (μg)				350	87.5	11.8	350	87.5	11.8			
Iodine (μg)	700	175	23.6				880	220	29.6	≥ 4 mg		
<i>Vitamins</i>												
Vitamin A (RE) ^h				1,212	303	40	1,515	379	50	64,000 ^b	16,000 ^b	2,099 ^b
Cholecalciferol (μg) ⁱ				11.0	2.75	0.36	13.8	3.4	0.45	80	20	2.6
Vitamin E (α-tocopherol) (mg) ^j				24	6.0	0.8	30	7.5	1.0			
Vitamin K (Menadione) (mg) ^k				1.3	0.33	0.043	1.63	0.41	0.054			
Thiamin (mg)				1.8	0.45	0.059	2.25	0.56	0.074			
Riboflavin (mg)	4.2	1.05	0.138				5.25	1.3	0.171			
Pyridoxine (mg)				1.2	0.30	0.04	1.5	0.375	0.049			
Niacin (mg)				13.6	3.4	0.45	17.0	4.25	0.57			
Pantothenic Acid (mg)				12	3.0	0.39	15	3.75	0.49			
Cobalamin (μg)				28	7	0.92	35	8.75	1.15			
Folic Acid (μg)				216	54	7.1	270	67.5	8.9			
Biotin ^l												
Choline (mg)				1,360	340	45	1,700	425	56			

^aThe values for Amt/kg DM have been calculated assuming a dietary energy density of 4,000 kcal ME/kg. (The term ≡ signifies equivalence.) If the energy density of the diet is not 4,000 kcal ME/kg, then to calculate the Amt/kg DM for each nutrient, multiply the value for the nutrient in the column labeled Amt/kg DM by the energy density of the pet food (in kcal ME/kg) and divide by 4,000.