

Appendix 12: Intravenous Potassium Supplementation

Serum potassium	mEq/L K ⁺ to add (routine)	mEq/L K ⁺ to add (severe acidosis)
≤ 2.0 mEq/L	80	90-100
2.1-2.25 mEq/L	70	80
2.25-2.5 mEq/L	60	60-70
2.6-3.0 mEq/L	40	50
3.1-3.5 mEq/L	30	40
3.6-4.0 mEq/L	20 (only if not eating)	30
4.0-5.0 mEq/L	10 (only if not eating)	20

If phosphorus is below normal range, give 50% K⁺ as potassium phosphates and 50% K⁺ as KCl.

If phosphorus is dangerously low (1.5 or lower), consider giving 75-100% K⁺ as potassium phosphates.

DO NOT GIVE POTASSIUM IV AT A RATE THAT EXCEEDS 0.5 mEq/kg/hr
Exceeding this rate can increase risk of cardiac arrest.

Goal	Fluid Rate	Rate of Potassium Administration (mEq/kg/hr)									
		10 mEq/L K ⁺	20 mEq/L K ⁺	30 mEq/L K ⁺	40 mEq/L K ⁺	50 mEq/L K ⁺	60 mEq/L K ⁺	70 mEq/L K ⁺	80 mEq/L K ⁺	90 mEq/L K ⁺	100 mEq/L K ⁺
Maintenance small dogs and cats	30 ml/lb/day 1.2 ml/lb/hr	0.028	0.055	0.082	0.11	0.14	0.16	0.19	0.22	0.25	0.28
1.5x maint. small dogs and cats	45 ml/lb/day 1.9 ml/lb/hr	0.041	0.082	0.12	0.16	0.21	0.25	0.29	0.33	0.37	0.41
2x maint. small dogs and cats	60 ml/lb/day 2.5 ml/lb/hr	0.055	0.11	0.16	0.22	0.28	0.33	0.38	0.44	0.50	X
3x maint. small dogs and cats	90 ml/lb/day 3.75 ml/lb/hr	0.082	0.16	0.25	0.33	0.41	0.50	X	X	X	X
Maintenance dogs >45 lbs	25 ml/lb/day 1.0 ml/lb/hr	0.023	0.046	0.069	0.092	0.11	0.14	0.16	0.18	0.21	0.23
1.5x maint. dogs >45 lbs	37.5 ml/lb/hr 1.5 ml/lb/hr	0.034	0.069	0.10	0.14	0.17	0.21	0.24	0.28	0.31	0.34
2x maint. dogs >45 lbs	50 ml/lb/day 2.0 ml/lb/hr	0.046	0.092	0.14	0.18	0.23	0.27	0.32	0.37	0.41	0.46
3x maint. dogs >45 lbs	75 ml/lb/day 3.1 ml/lb/hr	0.069	0.14	0.21	0.28	0.34	0.41	0.48	X	X	X