

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 |