

Aminophylline Infusion

1	For use in patients with <ul style="list-style-type: none"> Life threatening asthma Non-responder to nebulisers 	Aminophylline injection should not be used in patients hypersensitive to ethylenediamine or those allergic to the theophyllines, caffeine or theobromine.
2	Attach patient to a cardiac monitor	
3	<ul style="list-style-type: none"> Loading dose 5 mg/kg (usually 250-300 mg) Only if not on oral theophylline - Uniphyllin Continus, Nuelin, Slo-Phyllin, Phyllocontin Continus <p style="text-align: right; color: red;">P.T.O. for Dosing and Infusion Rate Table</p>	
4	<ul style="list-style-type: none"> Add dose to 100 mL of 5% glucose or 0.9% sodium chloride and Give by infusion over AT LEAST 20 minutes 	
5	<p><u>Maintenance Infusion</u> used in acute severe asthma or severe exac. of COPD.</p> <p>Maintenance infusion = P.T.O. for dosing table</p> <ul style="list-style-type: none"> Dilute to aminophylline 1 mg in 1mL with 0.9% sodium chloride or glucose 5% <p style="text-align: right; color: red;">P.T.O. for Dosing and Infusion Rate Table</p>	
6	Check levels 4-6 hours after starting treatment	
7	Check potassium levels regularly <ul style="list-style-type: none"> Concomitant use with beta 2 agonists can potentiate hypokalaemia 	

Aminophylline Dosing and Infusion Rate

Dose calculated by Ideal Body Weight in obese patients (BMI ≥30):
50 kg (Male) OR 45 kg (Female) + 2.3 kg for every INCH over 5 feet

Aminophylline Dosing and Infusion Rate table							
Dose Aminophylline	40kg	50kg	60kg	70kg	80kg	90kg	100kg
LOADING DOSE 5mg/kg over 20 minutes	200mg	250mg	300mg	350mg	400mg	450mg	500mg
Infusion Rate for MAINTENANCE DOSE							
Elderly or heart failure: 0.3mg/kg over 24hours	12mL/hr	15mL/hr	18mL/hr	21mL/hr	24mL/hr	27mL/hr	30mL/hr
Non-smoking adult: 0.5mg/kg over 24hours	20mL/hr	25mL/hr	30mL/hr	35mL/hr	40mL/hr	45mL/hr	50mL/hr
Smoking Adult: 0.7mg/kg over 24hours	28mL/hr	35mL/hr	42mL/hr	49mL/hr	56mL/hr	63mL/hr	70mL/hr

Monitor levels 18 hours after treatment. Aim for serum level 10-20mg/L. Do not adjust the dose/frequency if this first level is between 8-10mg/L. Take care with interacting medication e.g. erythromycin and clarithromycin, ciprofloxacin.

Detailed advice is available from the pharmacy department. If IV theophylline continues for more than 24 hours start monitoring levels – stop infusion for 20 minutes before taking levels