

Parenteral recommended intake of protein

Amino acids (g/kg per day)

Preterm infants	1-2 (3*)
0-1 year	2.5
2-13 years	1.5-2.0
13-18 years	1.0-1.5

* The optimal concentration and composition of parenteral amino acids for preterm infants is not known. Preterm infants have incomplete development of metabolic pathways for the metabolism of amino acids, so some amino acids that are not considered essential in adults and children may be essential in preterm infants (cysteine, taurine and glycine).

Standard parenteral nutrition solutions

<i>Each litre provides</i>	<i>N1:13/100</i> <i>P3:30/300</i> <i>(<5 kg)</i>	<i>N2:20/125</i> <i>(for <5 kg)</i>	<i>N3:33/200</i> <i>(<5 kg)</i>	<i>P1:20/100</i> <i>(>5 kg)</i>	<i>P2:25/200</i> <i>(>5 kg)</i>	<i>(>5 kg)</i>
Amino acids (g/L)	13	20	33	20	25	30
Glucose (g/L)	100	125	200	100	200	300
Sodium (mmol/L)	20	30	25	30	30	50
Potassium (mmol/L)	20	30	25	30	30	50
Calcium (mmol/L)	12	12	12	6	6	6
Phosphate (mmol/L)	12	12	12	6	6	6
Magnesium (mmol/L)	4	4	4	4	4	4
Multivitamins (mmol/L)	standard	standard	standard	standard	standard	
Trace elements	standard	standard	standard	standard	standard	
Heparin	nil	nil	nil	1000	1000	1000
Total kilocalories	425	545	876	465	866	1268
Osmolarity (mOsm)	878	1127	1588	914	1520	2206

Parenteral nutrition monitoring

<i>monthly</i>	<i>Baseline/</i> <i>pre-TPN</i>	<i>Daily</i>	<i>Twice weekly</i>	<i>Weekly</i>	<i>1-3</i>
Weight	X	X			
Height/length	X				X
Head circumference (<2 years)	X				X
Triceps skin fold thickness	X				X
Mid arm circumference	X				X
Fluid balance	X	X			
Inspect intravenous site	X	X			
Urinalysis	X	X			
Electrolytes	X	X (until stable)		X	
Urea	X	X (until stable)		X	
Creatinine	X	X (until stable)		X	
Acid-base	X	X (until stable)		X	
Glucose	X	X (until stable)	X		
Calcium	X	X (until stable)		X	
Phosphate	X	X (until stable)		X	
Magnesium	X		X (until stable)	X	
Triglycerides	X	X (with advancement of fat)		X	
LFT	X		X (until stable)	X	
FBE	X			X	
Zinc/ALP					X
Iron, ferritin					X

B₁₂, folate, selenium, manganese, molybdenum, copper, aluminium - 6 monthly or as indicated.