Amino Acids (Plasma)

Description	A profile of amino acids is provided: alanine, α-aminobutyric acid, arginine, asparagine, aspartic acid, carnosine, citrulline, cystine, glutamic acid, glutamine, glycine, histidine, homocystine, hydroxylysine, isoleucine, leucine, lysine, methionine, 1-methylhistidine, 3-methylhistidine, ornithine, phenylalanine, phosphoethanolamine, proline, sarcosine, serine, taurine, threonine, tyrosine, tryptophan, valine.
Indication	In general, unless looking for a disorder of renal transport, plasma amino acid analysis is more useful than urine. This test is mainly used in paediatrics to screen for inborn errors of metabolism. In adults, it may be used to screen for late presenting metabolic disorders, such as suspected aminoacidopathies. Plasma amino acids may also aid in investigating hyperammonaemia, suspected disorders of energy metabolism, renal disorders (nephrolithiasis, Fanconi syndrome), a positive urine nitroprusside test, epileptic encephalopathy and for monitoring of a protein restricted diet.
Additional Info	Functions of amino acids include the basic structural units of proteins, metabolic intermediates and neurotransmission.
Concurrent Tests	Urine amino acids
Dietary Requirements	Fasting sample preferred
Interpretation	Values depend on metabolic state. Non-specific changes may arise from haemolysis, delayed separation or shipping at room temperature. <u>Homocystinuria</u>: Increased plasma homocysteine and methionine.
Collection Conditions	No restrictions.
Frequency of testing	Repeat measurement inappropriate *except* in acute presentation of undiagnosed suspected metabolic disorder.