

CSF AMINO ACID REFERENCE RANGES:

	CSF (mcmol/L)	
AGE	0 - 150 years	
	lower	upper
Alanine	10	55
Allo-Isoleucine	NA	<= 2
Alpha Aminoadipic Acid	NA	<= 5
Alpha Aminobutyric Acid	NA	<= 10
Arginine	5	30
Argininosuccinic Acid	NA	<= 5
Asparagine	5	15
Aspartic Acid	NA	<= 5
Beta Alanine	NA	<= 25
Beta Aminoisobutyric Acid	NA	<= 5
Citrulline	NA	<= 5
Cystathionine	NA	<= 5
Cystine	NA	<= 3
Gamma Aminobutyric Acid	NA	<= 5
Glutamic Acid	NA	<= 10
Glutamine	300	600
Glycine	5	20
Glycyl Proline	Ranges Not Established / Reported in LIS / Not Reported In EMR	
Histidine	5	25
Homocitrulline	NA	<= 2
Homocystine	NA	<= 2
Hydroxyproline	NA	<= 5
Isoleucine	NA	<= 10
Leucine	5	20
Lysine	5	40
Methionine	NA	<= 10
L-Ornithine	NA	<= 10
Phenylalanine	5	40
Phosphoethanolamine	Ranges Not Established / Reported in LIS / Not Reported In EMR	
Proline	NA	<= 5
Sarcosine	NA	<= 5
Serine	20	60
S-Sulfocysteine	Ranges Not Established / Reported in LIS / Not Reported In EMR	
Taurine	NA	<= 15
Threonine	10	60
Tryptophan	NA	<= 10
Tyrosine	5	25
Valine	10	30

NA: Not Applicable

1/20/2025