

SickKids Amino Acid Quantitative, Urine Reference Intervals

Urine Reference Ranges. Units: mmol/mol c																
	<3d	3d	1y	2y	3y	4y	5y	6y	9y	10y	11y	12y	13y	14y	15y	120y
Alanine	48-206	3d-12m: 32-454	1y-11y: 27-233									≥12y: 10-90				
Alloisoleucine	Not Detected															
Alpha-aminoadipic Acid	6-49	3d-3y: 19-111			4y-9y: 9-43			10y-14y: 1-24			≥15y: 2-11					
Alpha-amino-n-butyric Acid	3-9	3d-4y: 1-35				5y-11y: 1-8				≥12y: 1-7						
Anserine	10-67	3d-11y: 3-102									≥12y: 0-13					
Arginine	2-36	3d-1y: 3-33			≥2y: 1-7											
Asparagine	0-37	3d-12y: 2-132									≥13y: 7-35					
Aspartate	2-49	3d-11y: 1-68									≥12y: 0-4					
Beta-Alanine	1-24	3d-9y: 6-89						≥10y: 2-10								
Beta-aminoisobutyric Acid	2-33	3d-5y: 2-317				6y-14y: 3-136				≥15y: 3-34						
Carnosine	1-176	3d-1y: 3-125		2y-11y: 1-26				≥12y: 1-18								
Citrulline	10-26	3d-2y: 1-41			≥3y: 1-3											
Cystathionine	4-32	3d-11y: 2-80									≥12y: 0-10					
Cystine	1-85	3d-11y: 3-123									≥12y: 4-31					
Eth./ARS/Sacch*	178-931	3d-11y: 44-260									≥12y: 14-64					
GABA/Homocitrulline**	0-15	3d-4y: 1-19				≥5y: 1-10										
Glutamate	1-220	3d-11y: 1-88									≥12y: 0-21					
Glutamine	0-137	3d-3y: 7-576			4y-11y: 47-191				≥12y: 8-116							
Glycine	371-1312	3d-5m: 563-2563	6m-13y: 18-733						≥14y: 23-209							
* Eth./ARS/Sacch: The result reported is the sum of Ethanolamine, Argininosuccinic Acid and Saccharopine																
** GABA/Homocitrulline: The result reported is the sum of Gamma Amino-N-Butyric Acid and Homocitrulline																

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Histidine	19-144	3d-14y: 40-776											>=15y:26-172			
Hydroxylysine 1	<=11y: 0-3											>=12y: 0-4				
Hydroxylysine 2	6-20	3d-11y: 1-65											>=12y: 0-5			
Hydroxyproline	45-421	3d-17m: 2-766	18m-3y: 0-8		4y-11y: 1-7						>=12y: 0-5					
Isoleucine	<=3y: 2-18				4y-11y: 2-6						>=12y: 1-5					
Leucine	2-36	3d-11y: 3-51											>=12y: 2-8			
Lysine	0-172	3d-11y: 4-408											>=12y: 3-96			
Methionine	1-36	3d-11y: 1-25											>=12y: 0-3			
1-Methylhistidine	5-85	3d-11y: 4-170											>=12y: 1-275			
3-Methylhistidine	29-70	3d-5y: 30-107						6y-11y: 22-62				>=12y: 19-62				
Ornithine	1-61	3d-11y: 2-57											>=12y: 1-2			
Phenylalanine	<=11y: 6-67											>=12y: 3-11				
Phosphoethanolamine	0-7	3d-3y: 1-63				4y-11y: 4-23						>=12y: 1-11				
Phosphoserine	0-6	3d-11y: 1-8											>=12y: 1-4			
Proline	3-191	3d-11y: 4-269											>=12y: 1-14			
Sarcosine	<=11y: 0-17											>=12y: 0-15				
Serine	0-247	3d-2y: 54-723				>=3y: 10-141										
Taurine	330-2764	3d-11y: 6-2434											>=12y: 0-130			
Threonine	1-388	3d-11y: 13-728											>=12y: 5-39			
Tryptophan	3-10	3d-11y: 6-64											>=12y: 3-10			
Tyrosine	3-39	3d-11y: 8-125											>=12y: 3-14			
Valine	1-29	3d-9y: 5-67						>=10y: 3-11								