



Detect the Malfunctioning of Your Body's Building Blocks with the Amino Acids Test

Amino acids are the building blocks of all structural proteins essential for life

Amino acids play an important role in neurotransmitter function, cholesterol and carbohydrate metabolism, and inflammatory and detoxification processes. They also help form glutathione, the main antioxidant that controls detoxification and neutralizes free radicals in the body.

The 22 standard amino acids are either used for protein synthesis (or synthesis of other molecules) or are oxidized into a source of energy. Twelve amino acids are considered conditionally essential, meaning humans must obtain them from their diet in order to maintain proper growth and protein energy. Ten amino acids are considered non-essential, meaning they can be synthesized in the body and are not exclusively obtained from diet. Humans need the essential amino acids to be in certain ratios for optimum effectiveness.

Benefits of our Amino Acids Test

Our Amino Acids Test shows the level of amino acids available in the body for building structural, transport, and storage proteins, building immunoglobins, and making enzymes. It also offers important clinical data on metabolic, nutritional, and neurological disorders, directly or indirectly dependent on the amino acids levels evaluated. We offer two test options, plasma and urine, analyze 40 amino acids and provide a detailed explanation of the causes and possible consequences of detected abnormalities, along with nutritional recommendations.

Amino acid imbalances are frequent underlying causes of metabolic, gastrointestinal, neurological, and behavioral disorders. Low levels of amino acids can increase susceptibility to various diseases, complicate healing processes, and cause fatigue and general discomfort. The Amino Acids Test can also help clarify or reinforce diagnoses from other test results, as well as guide practitioners on how to best modify a patient's diet to increase low amino acid levels. Foods rich in amino acids include red meat, poultry, seafood, beans, nuts, seeds, and quinoa.

Recommended for the Following Disorders

- *Autism Spectrum Disorders*
- *Behavioral disorders*
- *Cardiovascular problems*
- *Depression*
- *Dermatitis*
- *Chronic fatigue*
- *GI problems*
- *Inborn errors of metabolism*
- *Kidney stones*
- *Muscular weakness*
- *OCD*
- *Osteoporosis*
- *Poor immunity*
- *Seizures*
- *Sleep disorders*
- *Tics/Tourette syndrome*
- *Weak nails*

This Test Includes

- Essential/Conditionally Indispensable Amino Acids
- Non-Essential Amino Acids
- Gastrointestinal Markers
- Magnesium-Dependent Markers

Pairing the Amino Acids Test With Other Tests

The Amino Acids Urine Test pairs perfectly with our Organic Acids Test (OAT) and other urine tests, giving you a more comprehensive assessment for your patients. These tests can easily be run on the same urine sample as well.

Specimen Requirements

25 mL of first morning urine or 1 lavender-top tube of whole blood (requires overnight fasting).

Sample Report

SPECIMEN VALIDITY								
SPECIMEN MARKERS	RESULT	REFERENCE RANGE	PERCENTILE					
			2.5 th	16 th	50 th	84 th	97.5 th	
Creatinine	160	45- 225 mg/dL						
Glutamine/Glutamate	28	5- 160						
Ammonia Level	32700	9000- 39000 µM						
SPECIMEN VALIDITY INDEX								

ESSENTIAL / CONDITIONALLY INDISPENSABLE AMINO ACIDS								
ESSENTIAL AMINO ACIDS	RESULT µM/g creatinine	REFERENCE RANGE	PERCENTILE					
			2.5 th	16 th	50 th	84 th	97.5 th	
Methionine	6	7- 35						
Lysine	84	35- 500						
Threonine	190	60- 230						
Leucine	43	18- 70						
Isoleucine	9.9	8- 35						
Valine	47	12- 50						
Phenylalanine	54	25- 75						
Tryptophan	87	20- 75						
Taurine	3120	170- 1200						
Cysteine	44	20- 57						
Arginine	30	8- 50						
Histidine	1030	270- 1150						

NONESSENTIAL AMINO ACIDS								
NONESSENTIAL AMINO ACIDS	RESULT µM/g creatinine	REFERENCE RANGE	PERCENTILE					
			2.5 th	16 th	50 th	84 th	97.5 th	
Alanine	310	100- 500						
Aspartate	11	7- 23						
Asparagine	140	40- 180						
Glutamine	650	180- 530						
Glutamate	23	5- 45						
Cystine	26	20- 90						
Glycine	930	400- 1800						
Tyrosine	110	23- 113						
Serine	390	130- 400						
Proline	3.5	1- 45						



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