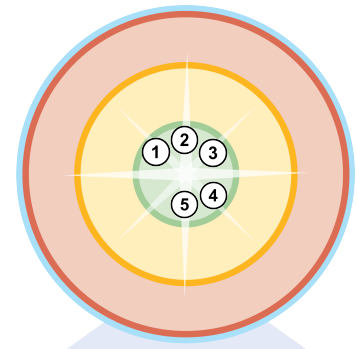
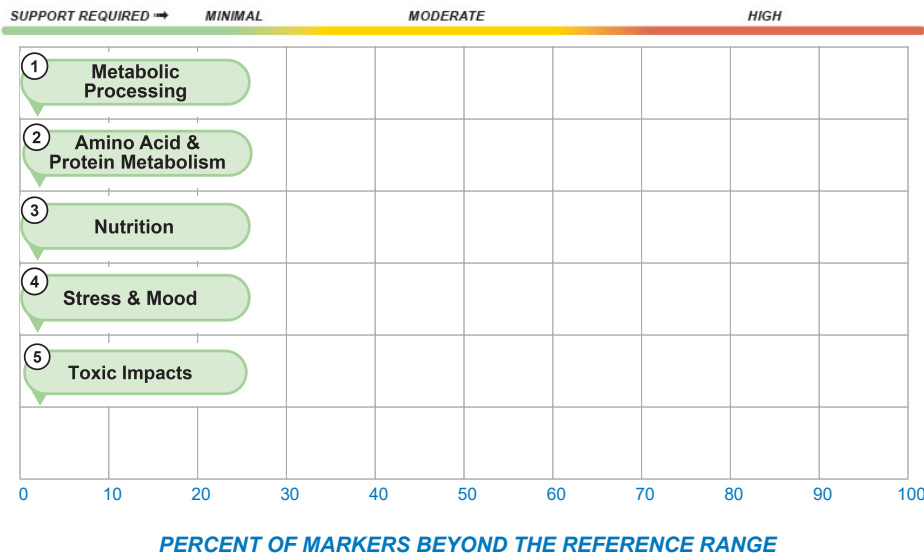


YOUR PERSONALIZED REPORT

The charts on this page are designed to give you a bird's-eye-view of your current metabolic signature and help you get a general preview of the detailed report found on the following pages.

METABOLOMIC SIGNATURE

Identifying Impact of Functional Categories



YOUR HEALTH TARGET RESULTS

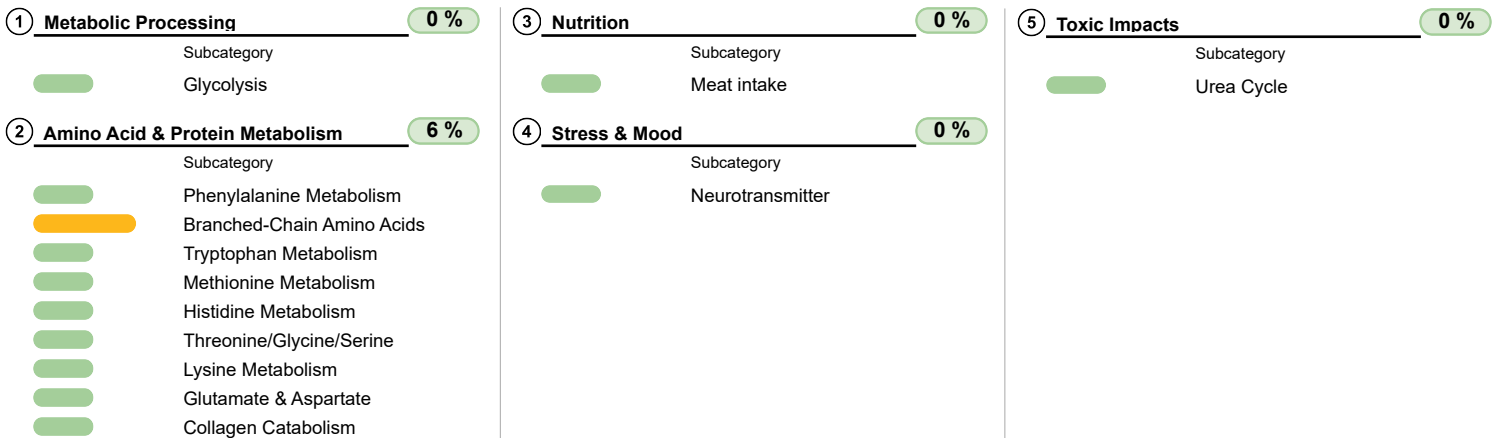
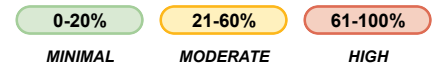
Findings show that 0 of 5 Functional Categories have markers beyond the reference range.

Subcategories are identified below.

Identifying Impact of Subcategories

NOTE: Below is a list of the Functional Categories and the included subcategories. It lists the percentage of markers that are beyond the reference range so clinicians can better target areas of concern.

PERCENT OF MARKERS BEYOND THE REFERENCE RANGE



1 - Metabolic Processing

	Result			Reference
Glycolysis				
(P) Alanine <i>Alanine transaminase + B6</i>	461.0			271.5 - 730.0 nmol/mL

2 - Amino Acid & Protein Metabolism

	Result			Reference
Phenylalanine Metabolism				
(P) Phenylalanine <i>Phenylalanine hydroxylase + BH4</i>	39.3			31.7 - 71.0 nmol/mL
(P) Tyrosine <i>Tyrosine hydroxylase + BH4</i>	47.6			27.8 - 84.5 nmol/mL
Branched-Chain Amino Acids				
(P) Total Branched Chain Amino Acids <i>Branched-chain amino acid transaminase + B6</i>	258.5			211.9 - 577.3 nmol/mL
(P) Valine <i>Branched-chain amino acid transaminase + B6</i>	154.8			109.3 - 283.0 nmol/mL
(P) Isoleucine/allo-Isoleucine <i>Branched-chain amino acid transaminase + B6</i>	34.8 L			35.5 - 112.4 nmol/mL
(P) Leucine <i>Branched-chain amino acid transaminase + B6</i>	69.0			57.1 - 187.5 nmol/mL
Tryptophan Metabolism				
(P) Tryptophan <i>Tryptophan hydroxylase + BH4</i>	51.3			36.9 - 87.1 nmol/mL
(P) Kynurenine <i>Kynurenine mono-oxygenase (KMO) + B2</i>	4.3			< 4.4 nmol/mL
(P) KT Ratio <i>Kynurenine / Tryptophan</i>	0.083			0.018 - 0.101

KEY: < dl = Results below detection limit.

(P) = Analyte measured in plasma.

The assays were developed and/or the performance characteristics determined by Diagnostic Solutions Laboratory. The results are for research and not for diagnostic purposes.

2 - Amino Acid & Protein Metabolism

Methionine Metabolism		Result	20% 40% 60% 80%	Reference
P	Methionine <i>Methionine adenosyltransferase</i>	25.9		12.1 - 38.5 nmol/mL
P	Homocystine <i>Methionine synthase + B12</i>	<DL		< 2.2 nmol/mL
P	Cystathionine <i>Cystathionine gamm-lyase + B6</i>	<DL		< 0.3 nmol/mL
P	Sulfocysteine <i>Sulfite oxidase (SOX) + Mo</i>	<DL		< 1.4 nmol/mL
P	Taurine <i>Hypotaurine dehydrogenase</i>	51.5		25.9 - 107.2 nmol/mL
P	Cystine <i>Oxidation</i>	37.7		13.4 - 51.9 nmol/mL
Histidine Metabolism		Result	20% 40% 60% 80%	Reference
P	Histidine <i>Histidine decarboxylase + B6</i>	80.1		61.2 - 104.7 nmol/mL
P	3-Methylhistidine <i>Myofibrillar Breakdown</i>	14.6		< 26.9 nmol/mL
P	β-Alanine <i>Carnosine synthase</i>	<DL		< 0.7 nmol/mL

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2 - Amino Acid & Protein Metabolism

Threonine/Glycine/Serine		Result	20% 40% 60% 80%	Reference
(P)	Threonine <i>Glycine C-acetyltransferase + B6</i>	141.7		51.4 - 184.9 nmol/mL
(P)	Glycine <i>Glutathione synthetase</i>	389.1		154.2 - 582.7 nmol/mL
(P)	Serine <i>Cystathionine beta-synthase + B6, Iron</i>	122.2		54.2 - 207.4 nmol/mL
(P)	Sarcosine <i>Sarcosine dehydrogenase + B2</i>	<DL		< 10.4 nmol/mL
(P)	Ethanolamine <i>Ethanolamine kinase</i>	8.2		< 16.9 nmol/mL
(P)	Phosphoethanolamine <i>Phosphoethanolamine cytidylyltransferase</i>	<DL		< 6.3 nmol/mL
Lysine Metabolism		Result	20% 40% 60% 80%	Reference
(P)	Lysine <i>alpha-Amino adipic semialdehyde synthase</i>	277.2		210.6 - 498.2 nmol/mL
(P)	alpha-Amino adipic Acid <i>Aminotransferase + B6</i>	<DL		< 4.8 nmol/mL
Glutamate & Aspartate		Result	20% 40% 60% 80%	Reference
(P)	Glutamine <i>Glutaminase</i>	683.2		352.4 - 1017.1 nmol/mL
(P)	Glutamic Acid <i>Glutamate cysteine ligase</i>	59.6		38.3 - 251.2 nmol/mL
(P)	Glutamine / Glutamate Ratio <i>Glutaminase</i>	0.087 L		2.1 - 21.7
(P)	Asparagine <i>Asparaginase</i>	33.0		15.6 - 62.7 nmol/mL
(P)	Aspartic Acid <i>Asparagine synthase</i>	11.4		5.4 - 21.5 nmol/mL

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2 - Amino Acid & Protein Metabolism

Collagen Catabolism		Result		Reference
(P) Proline	223.4		117.2 - 411.9 nmol/mL	
<i>Prolyl hydroxylase + Vitamin C</i>				
(P) Hydroxyproline	9.3		< 30.6 nmol/mL	
<i>4-Hydroxyproline oxidase</i>				
(P) Glycylproline	<DL		< 2.6 nmol/mL	
<i>Dipeptide of Glycine + Proline</i>				

3 - Nutrition

Meat intake		Result		Reference
(P) 1-Methylhistidine	<DL		< 16.0 nmol/mL	
<i>Dietary meat & fish</i>				
(P) Carnosine	2.7		< 2.7 nmol/mL	
<i>Carnosinase</i>				
(P) Anserine	<DL		< 18.4 nmol/mL	
<i>Anserinase</i>				

4 - Stress & Mood

Neurotransmitter		Result		Reference
(P) γ -Aminobutyric Acid	<DL		< 1.5 nmol/mL	
<i>gamma-Aminobutyric acid aminotransferase + B6</i>				

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(P) = Analyte measured in plasma.

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5 - Toxic Impacts

Urea Cycle		Result	20% 40% 60% 80%	Reference
P	Arginine <i>Arginase & Nitric oxide synthase</i>	44.4		36.9 - 112.2 nmol/mL
P	Citrulline <i>Argininosuccinate synthase</i>	16.2		13.8 - 59.7 nmol/mL
P	Ornithine <i>Ornithine transcarbamylase</i>	82.3		39.0 - 132.1 nmol/mL
P	Homocitrulline <i>Argininosuccinate synthase</i>	<DL		< 3.4 nmol/mL
P	Arginosuccinic Acid <i>Argininosuccinate lyase</i>	<DL		< 14.2 nmol/mL

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P = Analyte measured in plasma.

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PERSONALIZED METABOLOMIC RECOMMENDATIONS

Note: Nutrient supplementation is up to the treating clinician's discretion with full understanding of the patient's medical history and current clinical condition.

PROTEIN	<i>Findings</i>	Suggested Recommendation
Phenylalanine	Adequate	No Additional Support
Isoleucine/allo-Isoleucine	Low	Assess calorie and protein intake; evaluate digestion
Leucine	Adequate	No Additional Support
Valine	Adequate	No Additional Support
Tryptophan	Adequate	No Additional Support
Methionine	Adequate	No Additional Support
Threonine	Adequate	No Additional Support
Lysine	Adequate	No Additional Support
Histidine	Adequate	No Additional Support
Arginine	Adequate	No Additional Support
Glycine	Adequate	No Additional Support
Taurine	Adequate	No Additional Support