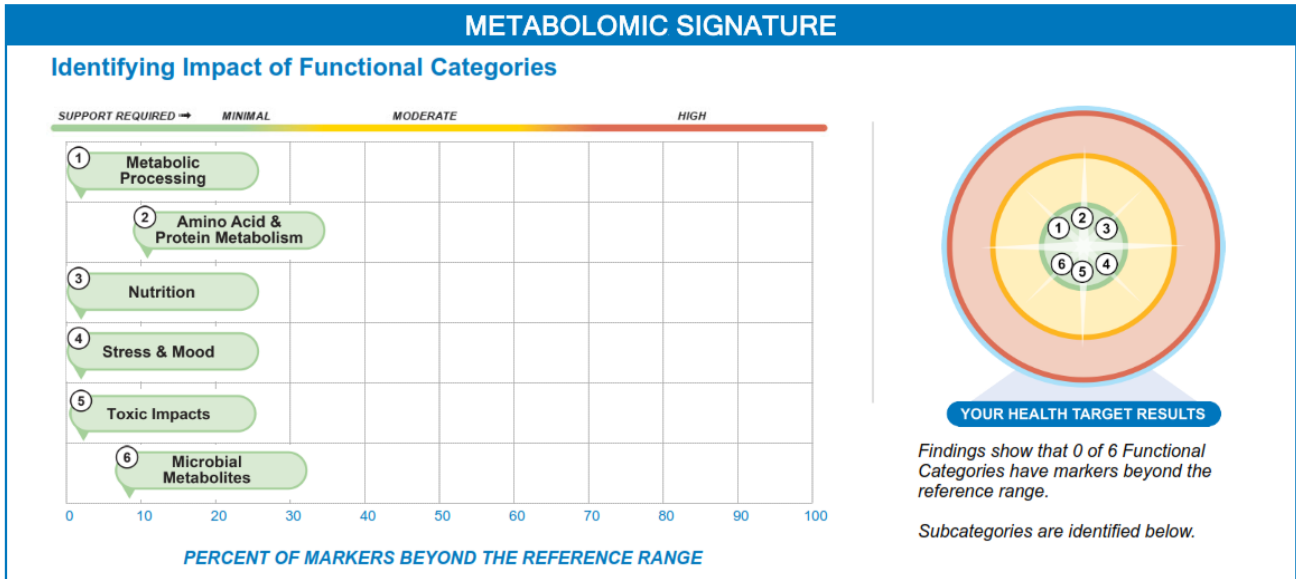


**TEST NAME: OMX- Urine+Plasma**



#### 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		
		0-20%	21-60%	61-100%
		MINIMAL	MODERATE	HIGH
<p><b>1 Metabolic Processing</b> <span style="float: right;">0 %</span></p> <p>Subcategory</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Glycolysis</li> <li><input type="checkbox"/> Krebs Cycle</li> <li><input type="checkbox"/> Fatty Acid Oxidation</li> <li><input type="checkbox"/> Ketones</li> </ul>	<p><b>3 Nutrition</b> <span style="float: right;">0 %</span></p> <p>Subcategory</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> B-Complex (B1, B2, B3, B5, LA)</li> <li><input type="checkbox"/> Vitamin B-12</li> <li><input type="checkbox"/> Folate</li> <li><input type="checkbox"/> Vitamin B6</li> <li><input type="checkbox"/> Biotin</li> <li><input type="checkbox"/> Plant Components</li> <li><input type="checkbox"/> Meat intake</li> <li><input type="checkbox"/> Sugar Intake</li> </ul>	<p><b>5 Toxic Impacts</b> <span style="float: right;">0 %</span></p> <p>Subcategory</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Oxidative Damage</li> <li><input type="checkbox"/> Toxins</li> <li><input type="checkbox"/> Urea Cycle</li> <li><input type="checkbox"/> Kidney Impacts</li> </ul>		
<p><b>2 Amino Acid &amp; Protein Metabolism</b> <span style="float: right;">13 %</span></p> <p>Subcategory</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Phenylalanine Metabolism</li> <li><input type="checkbox"/> Branched-Chain Amino Acids</li> <li><input type="checkbox"/> Tryptophan Metabolism</li> <li><input type="checkbox"/> Methionine Metabolism</li> <li><input type="checkbox"/> Histidine Metabolism</li> <li><input type="checkbox"/> Threonine/Glycine/Serine</li> <li><input type="checkbox"/> Lysine Metabolism</li> <li><input type="checkbox"/> Glutamate &amp; Aspartate</li> <li><input type="checkbox"/> Collagen Catabolism</li> </ul>	<p><b>4 Stress &amp; Mood</b> <span style="float: right;">0 %</span></p> <p>Subcategory</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Neurotransmitter</li> <li><input type="checkbox"/> Catecholamine Turnover</li> <li><input type="checkbox"/> Serotonin Turnover</li> <li><input type="checkbox"/> Steroid Hormone</li> </ul>	<p><b>6 Microbial Metabolites</b> <span style="float: right;">11 %</span></p> <p>Subcategory</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Isoflavone Microbial Metabolite</li> <li><input type="checkbox"/> Amino Acid Microbial Metabolites</li> <li><input type="checkbox"/> Polyphenols Microbial Metabolites</li> <li><input type="checkbox"/> Fungal Assessment</li> </ul>		

## TEST NAME: OMX- Urine+Plasma

## 1 - Metabolic Processing

Glycolysis		Result	20% 40% 60% 80%	Reference
<b>Glucose</b>		2.9		< 15.2 mg/dL
<i>Glucokinase</i>				
<b>Pyruvic Acid</b>		22.1		< 47.2 nmol/mg Creatinine
<i>Pyruvate dehydrogenase + B1, B2, B3, B5 LA</i>				
<b>Lactic Acid</b>		56.1		23.1 - 722.6 nmol/mg Creatinine
<i>Lactate dehydrogenase + B3</i>				
<b>D-Lactic Acid</b>		2.6		< 21.6 nmol/mg Creatinine
<i>D-Lactate dehydrogenase</i>				
<b>(P) Alanine</b>		309.0		271.5 - 730.0 nmol/mL
<i>Alanine transaminase + B6</i>				
Krebs Cycle		Result	20% 40% 60% 80%	Reference
<b>Citric Acid</b>		1640.0		> 356.2 nmol/mg Creatinine
<i>Citrate synthase</i>				
<b>cis-Aconitic Acid</b>		156.6		91.3 - 363.1 nmol/mg Creatinine
<i>Aconitase</i>				
<b>Isocitric Acid</b>		262.8		< 415.6 nmol/mg Creatinine
<i>Isocitrate dehydrogenase + B3</i>				
<b>α-Ketoglutaric Acid</b>		30.3		< 157.2 nmol/mg Creatinine
<i>alpha-Ketoglutarate dehydrogenase + B1, B2, B3, B5, LA</i>				
<b>Succinic Acid</b>		43.5		4.8 - 224.1 nmol/mg Creatinine
<i>Succinic dehydrogenase + B2</i>				
<b>Fumaric Acid</b>		507.1		320.2 - 3375.5 nmol/mg Creatinine
<i>Fumarase</i>				
<b>Malic Acid</b>		4.6		< 21.5 nmol/mg Creatinine
<i>Malate dehydrogenase + B3</i>				

KEY: &lt; dl = Results below detection limit.


(P) = Analyte measured in plasma.

TEST NAME: OMX- Urine+Plasma

1 - Metabolic Processing

Fatty Acid Oxidation	Result	20% 40% 60% 80%	Reference
<b>Adipic Acid</b> <i>Saturated dicarboxylic acid</i>	7.9		2.0 - 15.1 nmol/mg Creatinine
<b>Sebacic Acid</b> <i>Fatty acid oxidation + Carnitine</i>	<DL		< 3.7 nmol/mg Creatinine
<b>Suberic Acid</b> <i>Fatty acid oxidation + Carnitine</i>	10.7		3.0 - 29.4 nmol/mg Creatinine
<b>Pimelic Acid</b> <i>Saturated dicarboxylic acids</i>	16.6		5.9 - 31.8 nmol/mg Creatinine
<b>Hexanoylglycine</b> <i>Medium-chain acyl glycines</i>	1.7		< 2.6 nmol/mg Creatinine
<b>Suberylglycine</b> <i>Medium-chain acyl glycines</i>	<DL		< 2.3 nmol/mg Creatinine
<b>3-Phenylpropionylglycine</b> <i>Medium-chain acyl glycines</i>	0.9		< 1.3 nmol/mg Creatinine
<b>Ethylmalonic Acid</b> <i>Dicarboxylic acid</i>	27.9		5.0 - 43.3 nmol/mg Creatinine
<b>2-Methylsuccinic Acid</b> <i>Dicarboxylic acid</i>	10.6		3.2 - 21.1 nmol/mg Creatinine
Ketones	Result	20% 40% 60% 80%	Reference
<b>β-Hydroxybutyric Acid</b> <i>beta-Hydroxybutyrate dehydrogenase + B3</i>	44.9		< 60.5 nmol/mg Creatinine

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 = Analyte measured in plasma.

TEST NAME: OMX- Urine+Plasma

2 - Amino Acid & Protein Metabolism

Phenylalanine Metabolism		Result	20% 40% 60% 80%	Reference
<b>P</b>	<b>Phenylalanine</b> <i>Phenylalanine hydroxylase + BH4</i>	42.0		31.7 - 71.0 nmol/mL
	<b>Phenylacetic Acid</b> <i>Aldehyde dehydrogenase</i>	1.7		0.5 - 19.1 nmol/mg Creatinine
<b>P</b>	<b>Tyrosine</b> <i>Tyrosine hydroxylase + BH4</i>	45.5		27.8 - 84.5 nmol/mL
	<b>Homovanillic Acid</b> <i>COMT + Magnesium &amp; Monoamine oxidase + B2</i>	5.6		< 10.3 nmol/mg Creatinine
	<b>Vannilylmandelic Acid</b> <i>Monoamine oxidase + B2</i>	14.5		4.8 - 21.4 nmol/mg Creatinine
	<b>4-Hydroxyphenylpyruvic Acid</b> <i>Tyrosine aminotransferase + B6</i>	11.4 L		35.5 - 1116.3 nmol/mg Creatinine
	<b>Homogentisic Acid</b> <i>4-Hydroxyphenylpyruvate dioxygenase + Iron</i>	16.3		7.9 - 336.4 nmol/mg Creatinine
Branched-Chain Amino Acids		Result	20% 40% 60% 80%	Reference
<b>P</b>	<b>Total Branched Chain Amino Acids</b> <i>Branched-chain amino acid transaminase + B6</i>	291.0		211.9 - 577.3 nmol/mL
<b>P</b>	<b>Valine</b> <i>Branched-chain amino acid transaminase + B6</i>	173.2		109.3 - 283.0 nmol/mL
	<b>α-Ketoisovaleric Acid</b> <i>Branched-chain keto acid dehydrogenase + B1, B2, B3, B5, LA</i>	0.6		< 11.9 nmol/mg Creatinine
<b>P</b>	<b>Isoleucine/allo-Isoleucine</b> <i>Branched-chain amino acid transaminase + B6</i>	42.6		35.5 - 112.4 nmol/mL
	<b>α-Keto-β-methylvaleric Acid</b> <i>Branched-chain keto acid dehydrogenase + B1, B2, B3, B5, LA</i>	4.5		< 11.9 nmol/mg Creatinine
<b>P</b>	<b>Leucine</b> <i>Branched-chain amino acid transaminase + B6</i>	75.2		57.1 - 187.5 nmol/mL
	<b>α-Ketoisocaproic Acid</b> <i>Branched-chain keto acid dehydrogenase + B1, B2, B3, B5, LA</i>	3.9		< 17.0 nmol/mg Creatinine

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TEST NAME: OMX- Urine+Plasma

2 - Amino Acid & Protein Metabolism

Tryptophan Metabolism		Result	20% 40% 60% 80%	Reference
<b>P</b>	<b>Tryptophan</b> <i>Tryptophan hydroxylase + BH4</i>	<b>30.5 L</b>		36.9 - 87.1 nmol/mL
	<b>5-Hydroxyindoleacetic Acid</b> <i>Aldehyde dehydrogenase + B3</i>	<b>13.7</b>		6.3 - 28.7 nmol/mg Creatinine
<b>P</b>	<b>Kynurenine</b> <i>Kynurenine mono-oxygenase (KMO) + B2</i>	<b>4.1</b>		< 4.4 nmol/mL
<b>P</b>	<b>KT Ratio</b> <i>Kynurenine / Tryptophan</i>	<b>0.135 H</b>		0.018 - 0.101
	<b>Hydroxykynurenine</b> <i>Kynureninase + B6</i>	<DL		< 12.1 nmol/mg Creatinine
	<b>Xanthurenic Acid</b> <i>Kynurenine transaminase + B6</i>	<DL		< 9.5 nmol/mg Creatinine
	<b>Anthranilic Acid</b> <i>Kynureninase + B6</i>	<DL		< 11.8 nmol/mg Creatinine
	<b>Picolinic Acid</b> <i>Non-enzymatic conversion</i>	<DL		< 4.0 nmol/mg Creatinine
	<b>Kynurenic Acid</b> <i>Kynurenine transaminase + B6</i>	<b>3.5</b>		2.1 - 18.5 nmol/mg Creatinine
	<b>Quinolinic Acid</b> <i>Non-enzymatic conversion</i>	<b>16.2</b>		9.0 - 105.7 nmol/mg Creatinine

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TEST NAME: OMX- Urine+Plasma

2 - Amino Acid & Protein Metabolism

Methionine Metabolism		Result	20% 40% 60% 80%	Reference
<b>(P)</b> Methionine	<i>Methionine adenosyltransferase</i>	21.4		12.1 - 38.5 nmol/mL
<b>(P)</b> Homocystine	<i>Methionine synthase + B12</i>	<DL		< 2.2 nmol/mL
<b>(P)</b> Cystathionine	<i>Cystathionine gamm-lyase + B6</i>	<DL		< 0.3 nmol/mL
<b>(P)</b> Sulfoctysteine	<i>Sulfite oxidase (SOX) + Mo</i>	<DL		< 1.4 nmol/mL
<b>(P)</b> Taurine	<i>Hypotaurine dehydrogenase</i>	147.6 H		25.9 - 107.2 nmol/mL
<b>(P)</b> Cystine	<i>Oxidation</i>	27.9		13.4 - 51.9 nmol/mL
<b>α-Hydroxybutyric Acid</b>	<i>Dehydrogenase + B3</i>	36.2		10.6 - 62.6 nmol/mg Creatinine
<b>α-Ketobutyric Acid</b>	<i>Lactate dehydrogenase + B3</i>	12.9 H		< 7.2 nmol/mg Creatinine
<b>Pyroglutamic Acid</b>	<i>5-Oxoprolinase</i>	58.3		< 72.7 nmol/mg Creatinine
Histidine Metabolism		Result	20% 40% 60% 80%	Reference
<b>(P)</b> Histidine	<i>Histidine decarboxylase + B6</i>	68.3		61.2 - 104.7 nmol/mL
<b>(P)</b> 3-Methylhistidine	<i>Myofibrillar Breakdown</i>	<DL		< 26.9 nmol/mL
<b>(P)</b> β-Alanine	<i>Carnosine synthase</i>	3.4 H		< 0.7 nmol/mL

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TEST NAME: OMX- Urine+Plasma

2 - Amino Acid & Protein Metabolism

Threonine/Glycine/Serine		Result	20% 40% 60% 80%	Reference
<b>P</b>	<b>Threonine</b> <i>Glycine C-acetyltransferase + B6</i>	113.2		51.4 - 184.9 nmol/mL
<b>P</b>	<b>Glycine</b> <i>Glutathione synthetase</i>	203.3		154.2 - 582.7 nmol/mL
<b>P</b>	<b>Serine</b> <i>Cystathionine beta-synthase + B6, Iron</i>	112.8		54.2 - 207.4 nmol/mL
<b>P</b>	<b>Sarcosine</b> <i>Sarcosine dehydrogenase + B2</i>	<DL		< 10.4 nmol/mL
<b>P</b>	<b>Ethanolamine</b> <i>Ethanolamine kinase</i>	<DL		< 16.9 nmol/mL
<b>P</b>	<b>Phosphoethanolamine</b> <i>Phosphoethanolamine cytidyltransferase</i>	<DL		< 6.3 nmol/mL
Lysine Metabolism		Result	20% 40% 60% 80%	Reference
<b>P</b>	<b>Lysine</b> <i>alpha-Aminoacidipic semialdehyde synthase</i>	172.5 L		210.6 - 498.2 nmol/mL
<b>P</b>	<b>alpha-Aminoacidipic Acid</b> <i>Aminotransferase + B6</i>	<DL		< 4.8 nmol/mL
	<b>Glutaric Acid</b> <i>Glutaryl-CoA dehydrogenase + B2</i>	2.3		< 4.5 nmol/mg Creatinine

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**TEST NAME: OMX- Urine+Plasma**
**2 - Amino Acid & Protein Metabolism**

Glutamate & Aspartate		Result		Reference
<b>(P)</b>	<b>Glutamine</b> <i>Glutaminase</i>	480.8		352.4 - 1017.1 nmol/mL
<b>(P)</b>	<b>Glutamic Acid</b> <i>Glutamate cysteine ligase</i>	71.3		38.3 - 251.2 nmol/mL
<b>(P)</b>	<b>Glutamine / Glutamate Ratio</b> <i>Glutaminase</i>	6.7		2.1 - 21.7
<b>(P)</b>	<b>Asparagine</b> <i>Asparaginase</i>	36.1		15.6 - 62.7 nmol/mL
<b>(P)</b>	<b>Aspartic Acid</b> <i>Asparagine synthase</i>	12.7		5.4 - 21.5 nmol/mL
Collagen Catabolism		Result		Reference
<b>(P)</b>	<b>Proline</b> <i>Prolyl hydroxylase + Vitamin C</i>	136.9		117.2 - 411.9 nmol/mL
<b>(P)</b>	<b>Hydroxyproline</b> <i>4-Hydroxyproline oxidase</i>	19.2		< 30.6 nmol/mL
<b>(P)</b>	<b>Glycylproline</b> <i>Dipeptide of Glycine + Proline</i>	<DL		< 2.6 nmol/mL

**3 - Nutrition**

B-Complex (B1, B2, B3, B5, LA)		Result		Reference
	<b>Branched Chain Alpha-Keto Organic Acids</b> <i>Branched-chain keto acid dehydrogenase + B1, B2, B3, B5, LA</i>	9.1		< 28.3 nmol/mg Creatinine
	<b>α-Ketoglutaric Acid</b> <i>alpha-Ketoglutarate dehydrogenase + B1, B2, B3, B5, LA</i>	30.3		< 157.2 nmol/mg Creatinine
	<b>Pyruvic Acid</b> <i>Pyruvate dehydrogenase + B1, B2, B3, B5, LA</i>	22.1		< 47.2 nmol/mg Creatinine
Vitamin B-12		Result		Reference
	<b>Methylmalonic Acid</b> <i>Methylmalonyl-CoA mutase + B12</i>	7.7		2.7 - 25.9 nmol/mg Creatinine

**KEY:** < dl = Results below detection limit.

**(P)** = Analyte measured in plasma.



**TEST NAME: OMX- Urine+Plasma**

3 - Nutrition		
Category	Result	Reference
<b>Folate</b>	Result	Reference
<b>Formiminoglutamic Acid</b> <i>Glutamate formimino-transferase + Folate</i>	<DL	< 0.4 nmol/mg Creatinine
<b>Vitamin B6</b>	Result	Reference
<b>Pyridoxic Acid</b> <i>Aldehyde oxidase</i>	<DL	< 111.9 nmol/mg Creatinine
<b>Xanthurenic Acid</b> <i>Kynurenine transaminase + B6</i>	<DL	< 9.5 nmol/mg Creatinine
<b>Biotin</b>	Result	Reference
<b>β-Hydroxyisovaleric Acid</b> <i>Methylcrotonyl-CoA carboxylase + Biotin</i>	46.7	25.1 - 223.4 nmol/mg Creatinine
<b>Plant Components</b>	Result	Reference
<b>Quercetin</b> <i>Polyphenol: Flavonoid</i>	8.4	> 2.7 nmol/mg Creatinine
<b>Tartaric Acid</b> <i>Plant component</i>	<DL	> 1.8 nmol/mg Creatinine
<b>Meat intake</b>	Result	Reference
<b>(P) 1-Methylhistidine</b> <i>Dietary meat &amp; fish</i>	16.0	< 16.0 nmol/mL
<b>(P) Carnosine</b> <i>Carnosinase</i>	<DL	< 2.7 nmol/mL
<b>(P) Anserine</b> <i>Anserinase</i>	<DL	< 18.4 nmol/mL
<b>Sugar Intake</b>	Result	Reference
<b>Fructose</b> <i>Fructokinase</i>	0.2	< 4.7 nmol/mg Creatinine

**KEY:** < dl = Results below detection limit.  
 (P) = Analyte measured in plasma.

**TEST NAME: OMX- Urine+Plasma**

**4 - Stress & Mood**

Neurotransmitter	Result	20% 40% 60% 80%	Reference
<b>(P) γ-Aminobutyric Acid</b> <i>gamma-Aminobutyric acid aminotransferase + B6</i>	<DL		< 1.5 nmol/mL
<b>Catecholamine Turnover</b>	Result	20% 40% 60% 80%	Reference
<b>Homovanillic Acid</b> <i>COMT + magnesium &amp; monoamine oxidase + B2</i>	5.6		< 10.3 nmol/mg Creatinine
<b>Vannilylmandelic Acid</b> <i>Monoamine oxidase + B2</i>	14.5		4.8 - 21.4 nmol/mg Creatinine
<b>Serotonin Turnover</b>	Result	20% 40% 60% 80%	Reference
<b>5-Hydroxyindoleacetic Acid</b> <i>Aldehyde dehydrogenase + B3</i>	13.7		6.3 - 28.7 nmol/mg Creatinine
<b>Steroid Hormone</b>	Result	20% 40% 60% 80%	Reference
<b>Cortisol</b> <i>11-beta-Hydroxysteroid dehydrogenase + B3</i>	50.6		< 82.0 mcg/g Creatinine
<b>Cortisone</b> <i>11-beta-Hydroxysteroid dehydrogenase + B3</i>	64.9		< 665.0 mcg/g Creatinine
<b>Aldosterone</b> <i>Steroid 5-beta reductase</i>	<DL		< 2.5 mcg/g Creatinine

**5 - Toxic Impacts**

Oxidative Damage	Result	20% 40% 60% 80%	Reference
<b>8-Hydroxy-2'-deoxyguanosine</b> <i>DNA oxidation</i>	<DL		< 8.4 nmol/mg Creatinine

**KEY:** < dl = Results below detection limit.  
 (P) = Analyte measured in plasma.

TEST NAME: OMX- Urine+Plasma

5 - Toxic Impacts

Toxins	Result	20% 40% 60% 80%	Reference
<b>2-Methylhippuric Acid</b> <i>Xylene exposure</i>	0.1		< 2.1 nmol/mg Creatinine
<b>Mandelic Acid</b> <i>Styrene exposure</i>	<DL		< 4.6 nmol/mg Creatinine
<b>Benzoylform</b> <i>Styrene exposure</i>	<DL		< 4.3 nmol/mg Creatinine
<b>Glucaric Acid</b> <i>Glucuronic Acid Pathway</i>	<DL		3.6 - 25.8 nmol/mg Creatinine
Urea Cycle	Result	20% 40% 60% 80%	Reference
<b>(P) Arginine</b> <i>Arginase &amp; Nitric oxide synthase</i>	78.1		36.9 - 112.2 nmol/mL
<b>(P) Citrulline</b> <i>Argininosuccinate synthase</i>	28.3		13.8 - 59.7 nmol/mL
<b>(P) Ornithine</b> <i>Ornithine transcarbamylase</i>	50.7		39.0 - 132.1 nmol/mL
<b>(P) Homocitrulline</b> <i>Argininosuccinate synthase</i>	<DL		< 3.4 nmol/mL
<b>(P) Arginosuccinic Acid</b> <i>Argininosuccinate lyase</i>	<DL		< 14.2 nmol/mL

KEY: < dl = Results below detection limit.


(P) = Analyte measured in plasma.

TEST NAME: OMX- Urine+Plasma

5 - Toxic Impacts

Kidney Impacts	Result	20% 40% 60% 80%	Reference
<b>Orotic Acid</b> <i>Uridine monophosphate synthase</i>	0.9		0.7 - 6.0 nmol/mg Creatinine
<b>Microalbumin</b> <i>Blood protein</i>	<DL		< 130.4 mcg/mg Creatinine
<b>Phosphate</b> <i>Charged particle (ion)</i>	33.4		11.2 - 192.4 mg/dL
<b>Creatinine</b> <i>Creatine breakdown</i>	79.6		29.3 - 296.8 mg/dL
<b>Oxalic Acid</b> <i>Divalent metallic cations</i>	152.7		< 1532.5 nmol/mg Creatinine

KEY: < dl = Results below detection limit.


 = Analyte measured in plasma.

TEST NAME: OMX- Urine+Plasma

6 - Microbial Metabolites

Amino Acid Microbial Metabolites		Result	20% 40% 60% 80%	Reference
<b>4-Hydroxyphenylacetic Acid</b> <i>Disordered tyrosine metabolism</i>	146.2			85.8 - 902.3 nmol/mg Creatinine
<b>Indoleacetic Acid</b> <i>Disordered tryptophan metabolism</i>	2.6			< 13.7 nmol/mg Creatinine
Polyphenols Microbial Metabolites		Result	20% 40% 60% 80%	Reference
<b>3,4-Dihydroxyhydrocinnamic Acid</b> <i>Polyphenol metabolite</i>	<DL			< 1490.3 nmol/mg Creatinine
<b>3,5-Dihydroxybenzoic Acid</b> <i>Microbial metabolite</i>	95.1			< 277.1 nmol/mg Creatinine
<b>4-Hydroxybenzoic Acid</b> <i>Hydroxybenzoic acid derivative</i>	0.8			< 14.9 nmol/mg Creatinine
<b>Benzoic Acid</b> <i>Glycine N-benzoyltransferase</i>	<DL			< 488.0 nmol/mg Creatinine
<b>Hippuric Acid</b> <i>Glycine conjugate of benzoate</i>	712.8 H			< 291.9 nmol/mg Creatinine
Isoflavone Microbial Metabolite		Result	20% 40% 60% 80%	Reference
<b>Equol</b> <i>Isoflavone metabolite</i>	<DL			< 12.8 nmol/mg Creatinine
Fungal Assessment		Result	20% 40% 60% 80%	Reference
<b>Arabinitol</b> <i>Dehydrogenase</i>	1.9			< 9.0 nmol/mg Creatinine

KEY: < dl = Results below detection limit.

 = Analyte measured in plasma.

TEST NAME: OMX- Urine+Plasma

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.

MICRONUTRIENTS	Support Required	Recommendations	Food Sources
<b>B-Complex</b>	None	No Additional Support	Mixed diet
<b>Thiamin (B1)</b>	None	1.2 mg*	Rice, wheat germ, lentils, peas, pork, whole wheat bread, spinach
<b>Riboflavin (B2)</b>	None	1.3 mg*	Milk, almonds, eggs, salmon, chicken, broccoli, spinach
<b>Niacin (B3)</b>	None	16 mg*	Chicken, tuna, turkey, cereal, peanuts, lentils, coffee
<b>Cobalamin (B12)</b>	None	2.4 mcg*	Clams, mussels, mackerel, crab, beef, salmon, milk, eggs
<b>Folate (B9)</b>	None	400 mcg DFE*	Lentils, garbanzo beans, spinach, asparagus, lima beans, orange juice
<b>Biotin (B7)</b>	None	30 mcg*	Eggs, liver, salmon, avocado, raspberries, cauliflower, bread
<b>CoQ10</b>	None	6 mg	Beef, herring, chicken, canola oil, Rainbow trout, peanuts, pistachio nuts, broccoli
<b>Magnesium</b>	None	420 mg*	Beef, pork, milk, cod, chicken, avocado
<b>Carnitine</b>	None	10+ mg	Beef, pork, milk, cod, chicken, avocado
<b>Copper</b>	None	0.9 mcg	Eastern oysters, crab meat, clams, cashews, sunflowers, hazelnuts, almonds

\* DV or Daily Values, are the recommended amounts of nutrients per day for a healthy, non-deficient adult.

PROTEIN	Findings	Suggested Recommendation
<b>Phenylalanine</b>	Adequate	No Additional Support
<b>Isoleucine/allo-Isoleucine</b>	Adequate	No Additional Support
<b>Leucine</b>	Adequate	No Additional Support
<b>Valine</b>	Adequate	No Additional Support
<b>Tryptophan</b>	<b>Low</b>	Assess calorie and protein intake; evaluate digestion; check inflammation, kidney function and mood disorders; check pathways (kynurenine, serotonin, indoles)
<b>Methionine</b>	Adequate	No Additional Support
<b>Threonine</b>	Adequate	No Additional Support
<b>Lysine</b>	<b>Low</b>	Assess calorie and protein intake; evaluate anxiety, ADHD, LPI variant SLC7A9, and carnitine need.
<b>Histidine</b>	Adequate	No Additional Support
<b>Arginine</b>	Adequate	No Additional Support
<b>Glycine</b>	Adequate	No Additional Support
<b>Taurine</b>	<b>High</b>	Assess protein, taurine and methionine intake or supplementation; check B6 level

ADDITIONAL SUPPORT	Support Required	Suggested Recommendation
<b>Glutathione Need</b>	None	No Additional Support
<b>Inflammation</b>	<b>Moderate</b>	Increase antioxidants (vitamin C, vitamin E, polyphenols), increase exercise, consider glutamine. Remove inflammatory source.
<b>Liver Parameters</b>	None	No Additional Support
<b>Kidney Parameters</b>	None	No Additional Support