

Environmental Pollutant Profile Sample Report

US BioTek
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Environmental Pollutants Profile

Physician: _____ Sex: F
Patient: _____ Age: 23
Accession #: _____ Collected: 12/03/2012
Received: 12/10/2012
Completed: 01/10/2013

Date: 12/3/2012
(Accession #XXXXXX)

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Next Test Due: 6/3/2013

Result (µg/g creatinine)	Reference Range	Population Ranking
Xylene Exposure		
3-Methylhippurate 0.21	≤ 0.23	
2-Methylhippurate 3.13	≤ 7.20	
Toluene Exposure		
Hippurate (using creatinine) 02.0	≤ 063.2	
*Benzene (using creatinine) 0.24	≤ 0.41	
Benzene is metabolized to Hippurates. Estrogens may cause elevated Hippurates independent of Toluene.		
Benzene Exposure		
trans-Muconic acid 0.28	≤ 0.11 (H)	
Trimethylbenzene Exposure		
3,4-Dimethylhippurate 0.04	≤ 0.11	
Styrene Exposure		
Mandelate 0.17	≤ 0.31	
Phenylglyoxylate 0.19	≤ 0.40	
Mandelate + Phenylglyoxylate 0.36	≤ 0.64	
Phthalate Exposure		
Monoethyl Phthalate 0.01	≤ 0.09	
Phthalate 0.06	≤ 0.50	
Quinolinolate (using creatinine) 5.5	≤ 6.1	
Paraben Exposure		
Para-Hydroxybenzoate (using creatinine) 1.83	≤ 2.66	

Additional information: Final Report

Reference range updated 12/2013. Reference ranges are gender specific and periodically updated. Results are age adjusted for children.
This test is not intended to diagnose, treat, cure, or prevent any disease or replace the medical advice and/or treatment obtained from a qualified healthcare practitioner. US BioTek Laboratories, Inc. has developed and validated the performance characteristics of this test under the Clinical Laboratory Improvement Amendments (CLIA). This test has not been evaluated by the U.S. Food and Drug Administration and is considered for investigational and research purposes only. This test does not assess for neonatal neonatal renal levels of medication and is based on stable renal function and normal renal clearance.
The analyzer on the same are subject to change without prior notice.
Reference range is not gender or age adjusted.

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LabAssist™ Organic Acids & Environmental Pollutants Report

Practitioner

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Practitioner Summary Review Organic Acids & Environmental Pollutants Date: 12/3/2012

Female / Age: 23

Out-Of-Balance Panel Values

The following panels have a PSD of greater than 25% indicating need for further review. PSD is the Panel Status Deviation, or the average imbalance of that subset of results. The PSS is the Panel Status Skew, or the direction, negative (deficiency) or positive (excess), of that subset of results.

Panel Name	PSD	PSS
BCAA Catabolism	88.51%	88.51%
Personal Care Products	70.00%	32.00%
B-Complex Metabolism	63.06%	63.06%
CA/Cycle Ratios	41.83%	-20.96%
Autonomic Sources	41.30%	38.29%
Phthalates	39.22%	-12.04%
Water Sources	36.96%	29.13%
Carbohydrate Metabolism	36.28%	-2.13%
Neurotransmitters	31.67%	-15.37%

Lab Reported out-of-range Values

The following results are out-of-range (as reported by the lab), and should be carefully reviewed.

trans-Muconic Acid (186.36%)

trans-Muconic acid is a marker for benzene exposure, a component of crude and refined petroleum. Exposure can come from many sources including oil refineries, petroleum plants, the manufacturers, paint and shoe producing plants, gas stations, cigarette smoke inhalation, and high traffic areas. Benzene has been shown to be carcinogenic and genotoxic as well as depressing red blood cells and hemoglobin. It has also been implicated in bone marrow depression as well as affecting the central nervous system.

p-Hydroxyphenylacetate (138.95%)

Elevated levels may be indicative of overgrowth of intestinal bacterial or protozoa especially Giardia lamblia, Clostridium difficile, Proteus vulgaris lead resection with blind loop, and other small intestine infestations of anaerobic bacteria. Other possibilities is that these results are due to malabsorption of tyrosine due to HCl deficiency, overuse of antibiotics, or lactose intolerance.

β-Keto-b-methylvalerate (93.48%)

This organic acid may be elevated due to poor amino acid metabolism. Supplementation with a B complex may be necessary as well as additional intake of thiamine (B1)

β-Ketoisovalerate (86.36%)

This organic acid may be elevated due to poor amino acid metabolism. Supplementation with a B complex may be necessary as well as additional intake of thiamine (B1)

β-Ketoisocaproate (85.09%)

This organic acid may be elevated due to poor amino acid metabolism. Supplementation with a B complex may be necessary as well as additional intake of thiamine (B1)

Pyruvate (83.36%)

Pyruvate is the end product of glucose metabolism. An elevated level may be indicative of a fundamental deficiency of B-complex vitamins and lipoic acid. High results are also seen in anorexia and other under-eating disorders.

CA Cycle Phase 6 (-60.22%)

The last phase of the citric acid cycle, this stage marks the conversion of Fumarate into Malate. When the ratio is low, this may signify that the body is not refilling its losses along the entire cycle. Supplementing with a broad spectrum amino acid along with niacin may help restore balance.

CA Cycle Return (56.04%)

As the citric acid returns to the beginning through the conversion of Malate to Citrate through Oxaloacetate, a high result may be due to low amino acid reserves especially aspartic acid.

Succinate (-54.79%)

A low reading of this organic acid may be indicative of a need for BCAAs (Branched Chain Amino Acids), especially leucine and isoleucine.

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Panel/Subset Report Organic Acids & Environmental Pollutants Date: 12/3/2012

Female / Age: 23

Automotive Sources

3-Methylhippurate, 3-Methylhippurate:5, Mandelate, Phenylglyoxylate, M + P, trans-Muconic Acid:5

This panel ascertains the level of automotive-sourced toxins within your cells. The leading source is car exhaust. Other sources include: idling on busy streets next to traffic, commuting in heavy traffic, and living in large urban areas. This profile may indicate a high level of intracellular toxins. Strongly consider an appropriate detoxification protocol.

PSD: 41.30
PSS: 38.29

Paint and Solvents

3-Methylhippurate:5, Mandelate, Phenylglyoxylate, M + P

This panel ascertains the level of paint and solvent toxins within your cells. Paints and solvents are often found with styrene and xylene. Airing out a newly painted house is advisable. When using paints and solvents, always ensure the work space is well-ventilated and wear an appropriate mask. This profile shows a percent imbalance below 25%, so no abnormalities were found.

PSD: 13.72
PSS: 12.47

Personal Care Products

Phthalate:1, Monoethyl Phthalate:1, p-Hydroxybenzoate, trans-Muconic Acid:5

This panel ascertains the intracellular toxins from cosmetic sources. Common toxins include: parabens, phthalates and benzene derivatives. To learn more about this topic, visit the Environmental Working Group, (www.ewg.org) and read their report "Skin Deep." This profile likely indicates high cosmetic toxin levels within your cells. Strongly consider appropriate detoxification protocol.

PSD: 70.50
PSS: 32.06

Phthalates

Phthalate:1, Monoethyl Phthalate:1, Quinolinolate:5

Phthalates are a commonly found in everyday things including: plastic items, scented items like air fresheners & candles, and personal care products. Phthalates disrupt the endocrine system and lowers testosterone in fetuses. This profile may indicate a low exposure or poor excretion. If your hippurate is low, it's likely poor excretion. Consider an appropriate detoxification protocol.

PSD: 39.22
PSS: -12.04

Plastic Sources

Phthalate:1, Monoethyl Phthalate:1, Mandelate, Phenylglyoxylate, M + P

Plastics are made with styrene and phthalates. This panel ascertains the level of intracellular toxins sourced from plastics. Common sources include: microwaving in plastic containers, drinking from plastic bottles, drinking hot liquids from styrofoam cups, etc. This profile shows a percent imbalance below 25%, so no abnormalities were found.

PSD: 18.10
PSS: -13.66

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Source and lab test service provider: HK Biotek

Enquiry

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