



Lab Interpretation, LLC
18124 Wedge Pkwy, Ste 432
Reno, NV 89511

(775) 851-3337
(775) 851-3363 Fax
www.labinterpretation.com

51 Year Old Female

Date: 3/8/2008

Next Test Due: 9/6/2008

LabAssist™ Environmental Pollutants Exposure Report

Practitioner

Printed on Monday, September 1, 2008 for:

Integrative Health Care

Dr. Able Insight

Anytown, USA 12345

775-555-5555

775-555-1212 (fax)

If there is a problem with this report, please contact us as soon as possible at: (775) 851-3337 or Fax (775) 851-3363

The information contained in this report is for the exclusive use of addressee and contains confidential, privileged and non-disclosable information. If the recipient of this report is not the addressee or the person responsible for delivering the message to the addressee, such recipient is prohibited from reading or using this message in any way and such recipient is further notified that any dissemination, distribution or copying of this report is strictly prohibited. If you have received this report in error, please notify us immediately by telephone collect and return the original report to us at the address below via the U.S. Postal Service. We will reimburse you for postage. Thank you.

Basic Status High/Low

51 Year Old Female

Female / Age: 54

Client ID: (17218)

Environmental Pollutants Exposure Date: 3/8/2008

Integrative Health Care (6087)

Dr. Able Insight

775-555-5555

The % Status is the weighted deviation of the laboratory result.

Low Results

-40	-30	-20	-10	0	% Status	Result	Low	High	
				t,t-Muconic Acid	-31.64	L	1.01	0.00	5.50

High Results

-50	0	50	100	150	% Status	Result	Low	High	
				2-Methylhippurate	323.33	H	5.60	0.00	1.50
				3,4-Dimethylhippurate	75.00	H	3.75	0.00	3.00
				Phthalate	62.50	H	2.25	0.00	2.00
				3-Methylhippurate	42.31	H	1.20	0.00	1.30
				Mandelate	34.00	H	4.20	0.00	5.00

Basic Status Alphabetic

51 Year Old Female

Environmental Pollutants Exposure Date: 3/8/2008

Female / Age: 54

Integrative Health Care (6087)

The % Status is the weighted deviation of the laboratory result relative to the range.

-100	-50	0	50	100	% Status	Result	Low	High	
					2-Methylhippurate	323.33 H	5.60	0.00	1.50
					3,4-Dimethylhippurate	75.00 H	3.75	0.00	3.00
					3-Methylhippurate	42.31 H	1.20	0.00	1.30
					Hippurate	-16.09	425.00	130.00	1000.00
					M + P	16.67	6.00	0.00	9.00
					Mandelate	34.00 H	4.20	0.00	5.00
					Monoethyl Phthalate	-20.59	0.50	0.00	1.70
					Phenylglyoxylate	-5.00	1.80	0.00	4.00
					Phthalate	62.50 H	2.25	0.00	2.00
					p-Hydroxybenzoate	13.33	1.90	0.00	3.00
					Quinolate	-17.33	4.90	0.00	15.00
					t,t-Muconic Acid	-31.64 L	1.01	0.00	5.50
	-25%	25%			Total Status Deviation	54.82			
					Total Status Skew	39.71			

Client Summary Review

51 Year Old Female

Female / Age: 54

Environmental Pollutants Exposure Date: 3/8/2008

Integrative Health Care (6087)

Nutritional Support

The following supplements may help to balance your biochemistry. Consult your practitioner.

1-Phthalate Reduction Protocol
See Nutrition Detail

1-Trimethylbenzene Detoxification
See Nutrition Detail

1-Xylene Detoxification Protocol
See Nutrition Detail

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
Water Sources	80.94%	68.73%
Automotive Sources	75.49%	63.28%
Phthalates	33.47%	8.19%
Cosmetic Sources	32.01%	5.90%
Plastic Sources	27.75%	17.52%

Lab Reported out-of-range Values

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

2-Methylhippurate (323.33%)

This elevated organic acid is an indication of exposure to or xylene or toluene. A comprehensive detoxification program should be undertaken to help the body excrete these petrochemicals. The use of antioxidants and glycine are recommended. Xylene may cause problems with the central nervous system. This effect will impair performance and affect cerebral function. Other symptoms are erythema, defatting dermatitis, conjunctivitis, renal damage, and paresthesias of the extremities. Xylene has also been suggested as causing mild hematopoietic system toxicity in experimental animals. Research suggests that this petrochemical is metabolized at a half-life rate of approximately 25 hours. The balance of the exposure is metabolized by the oxidation of a methyl group to toluic acid. The toluic acid is converted to methylhippuric acid through conjugation with glycine and excreted in the urine.

3,4-Dimethylhippurate (75.00%)

3,4-Dimethylhippurate is a marker for exposure to trimethylbenzene a common solvent found in paint thinners, dry cleaning, pesticides, inks, asphalt, lacquers, varnishes, dyes and many other petrochemical based products. Some health effects include dizziness, headache, anxiety, nausea, blurred vision, abdominal pains along with difficulty concentrating and irritability. Irritation of mucous membranes, dermatitis, nervousness and fatigue are other potential effects of trimethylbenzene exposure.

This toxin is also known to be carcinogenic and hepatotoxic.

In order to help the body excrete trimethylbenzene it is suggested to increase intake of glycine and sulfur bearing amino acids such as N-acetyl-cysteine and taurine. This, along with an increased fluid intake is necessary to help the body excrete this toxin. The use of saunas as well as exercise may also be beneficial in some people to excrete solvents from adipose tissue.

Phthalate (62.50%)

Phthalates are used in the manufacture of plastics to allow for flexibility and to soften resins. Not only that, but it is found in everything from makeup to detergents, shampoos to time-released pharmaceutical drugs. This toxin is a well known endocrine disruptor as well as causing neurological and developmental disorders. It can interfere with tryptophan metabolism resulting in an increase in quinolinic acid, a pro-inflammatory and neurotoxic compound. Phthalates have also been implicated in abnormal fetal development, especially in male fetuses. Recently, it has been linked to increased male waist circumference and insulin resistance.

Drugs which may have an adverse affect:

Time-Released Meds

Nutrition - Detail

51 Year Old Female

Environmental Pollutants Exposure Date: 3/8/2008

Female / Age: 54

Integrative Health Care (6087)

Nutritional and herbal information contained in this report is based upon research related to imbalances in your chemistry. The recommendations are based upon the information provided, without interpretation. This must be done with the help of a qualified health care professional.

1-Phthalate Reduction Protocol See Nutrition Detail

PHTHALATE REDUCTION PROTOCOL

Phthalates are ubiquitous chemicals found wherever plastics are found. They are powerful endocrine disruptors as well as potentially damaging to developing fetuses. Avoidance of plastics while very difficult is an important first step in lowering body burden. Never microwave or heat food in a plastic container. Improving both phase I and phase II detoxification is also critical.

Recommendations:

Adults

Amino Acids - 5-10 grams of a broad spectrum supplement with glycine

Broad Spectrum Antioxidants - 2x daily

Increased Fluid Intake preferably with an electrolyte added

Avoid Salicylates

Vitamin E - 400 IU 2x daily (mixed tocopherols)

Magnesium - 200 mg daily

Zinc - 25 mg daily

Children

Amino Acids - 2 grams of a broad spectrum supplement with glycine

Broad Spectrum Antioxidants - 1x daily

Increased Fluid Intake preferably with an electrolyte added

Avoid Salicylates

Vitamin E - 400 IU 1x daily (mixed tocopherols)

Magnesium - 125 mg daily

Zinc - 15 mg daily

Decreased

Rationale

Normal

Monoethyl Phthalate

Increased

Phthalate

1-Trimethylbenzene Detoxification See Nutrition Detail

TRIMETHYLBENZENE DETOXIFICATION PROTOCOL

This solvent is used in the manufacturing of paint thinners, perfumes, dyes, and as a motor fuel additive.

Adults

Glycine 500 mg twice daily

Increased fluid intake, preferably with added electrolytes

Broad Spectrum Antioxidants - twice daily

Children

Glycine 250 mg twice daily

Increased fluid intake, preferably with added electrolytes

Broad Spectrum Antioxidants - once daily

Decreased

Normal

Increased

3,4-Dimethylhippurate

1-Xylene Detoxification Protocol See Nutrition Detail

XYLENE DETOXIFICATION PROTOCOL

Xylene, a ubiquitous petrochemical solvent, is first oxidized via p450 enzymes then conjugated with glycine to form 2- and 3-methylhippurate.

The following nutritional support is recommended to help with the excretion of this toxin.

Adults

Glycine - 500 mg 2 - 3 times daily

Increased fluid intake, preferably with added electrolytes

Broad Spectrum Antioxidants - 2 - 3 times daily

Children

Glycine 250 mg 2 times daily

Broad Spectrum Antioxidants - 1 time daily

make sure the antioxidants include Vitamins C, E and Selenium

Decreased

Normal

Increased

3-Methylhippurate

2-Methylhippurate

Drug Interactions

51 Year Old Female

Environmental Pollutants Exposure Date: 3/8/2008

Female / Age: 54

Integrative Health Care (6087)

Drugs listed below tend to further aggravate elements of blood chemistry that are out of range (H or L). The (#) after each drug denotes the number of times that drug is flagged as being potentially harmful.

Time-Released Meds

Panel/Subset Report

51 Year Old Female

Environmental Pollutants Exposure Date: 3/8/2008

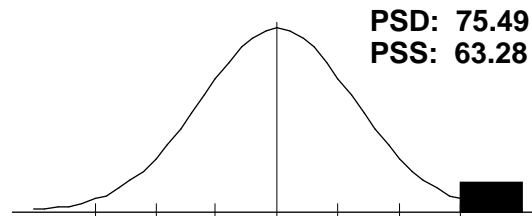
Female / Age: 54

Integrative Health Care (6087)

Automotive Sources

2-Methylhippurate[H], 3-Methylhippurate[H], Mandelate[H],
Phenylglyoxylate, M + P, t,t-Muconic Acid[L].

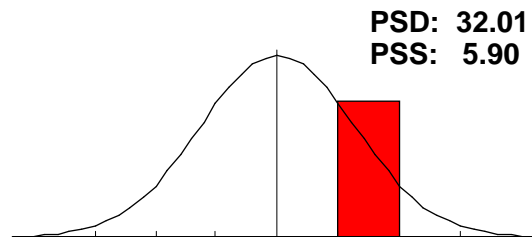
Car exhaust is a leading source of environmental solvent exposure. Running on busy streets next to traffic, commuting in heavy traffic, and living in large urban areas are sources of exposure.



Cosmetic Sources

Phthalate[H], Monoethyl Phthalate, p-Hydroxybenzoate, t,t-Muconic
Acid[L].

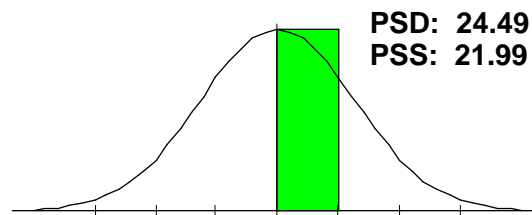
A number of cosmetics are made using parabens, phthalates and benzene derivatives. Careful avoidance of those cosmetics is warranted if this panel is elevated. A resource to find out more about this topic is the website run by the Environmental Working Group, www.ewg.org and their report Skin Deep.



Paint and Solvents

3-Methylhippurate[H], Mandelate[H], Phenylglyoxylate, M + P.

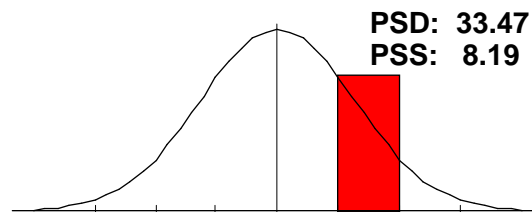
Paints and solvents are often found with styrene and xylene. Airing out a newly painted house is advisable. Also, for anyone using paints and solvents, make sure the place they are using them is well-ventilated.



Phthalates

Phthalate[H], Monoethyl Phthalate, Quinolate.

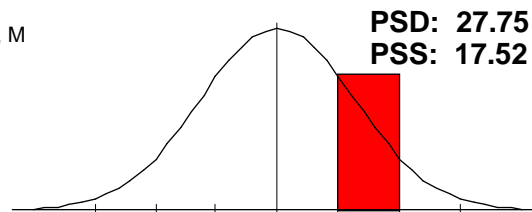
High levels of phthalates have been connected to a number of health issues. Avoidance is critical and detoxification may be necessary.



Plastic Sources

Phthalate[H], Monoethyl Phthalate, Mandelate[H], Phenylglyoxylate, M
+ P.

Plastics are often made with styrene and phthalates. If this panel is elevated, it is suggested that the patient should avoid heating plastics in the microwave, leaving plastic water bottles in the car, and drinking hot liquids out of styrofoam cups.

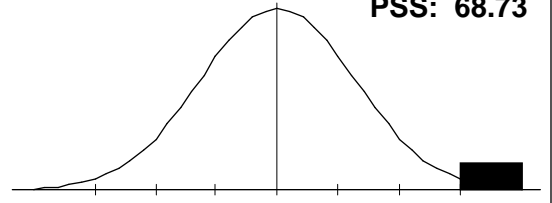


Water Sources

t,t-Muconic Acid[L], Mandelate[H], Phenylglyoxylate, M + P,
2-Methylhippurate[H], 3,4-Dimethylhippurate[H].

According to research, many water supplies worldwide are tainted with a number of petrochemicals including, but not limited to trimethylbenzene, toluene, styrene, and benzene. A high reading of this panel may warrant testing of the patient's water supply.

PSD: 80.94
PSS: 68.73



Clinical Correlation

51 Year Old Female

Female / Age: 54

Environmental Pollutants Exposure Date: 3/8/2008

Integrative Health Care (6087)

This report "MATCHES" clinical observations with the lab test. Elements shown, normal and abnormal, tend to characterize the observation. Highlighted elements are those reported to "MATCH" the characteristics of the clinical observation. Others are NOT matches but are elements in the observation.

No disease pattern matches > 66.0%

Comparison Progress Report

51 Year Old Female

Environmental Pollutants Exposure Date: 3/8/2008

Female / Age: 54

Integrative Health Care (6087)

A "+" change is toward optimal % Status of zero. A "-" change is away from optimal % Status of zero.

	Status % on:	1/14/2005		3/8/2008		+/- change
3-Methylhippurate		492.19 H		42.31 H		+ 449.88
2-Methylhippurate		460.67 H		323.33 H		+ 137.33
Phthalate		127.00 H		62.50 H		+ 64.50
M + P		48.00 H		16.67		+ 31.33
3,4-Dimethylhippurate		-50.00 L		75.00 H		- 25.00

Comparison Report












51 Year Old Female

Environmental Pollutants Exposure Date: 3/8/2008

Female / Age: 54

Integrative Health Care (6087)

The arrow's length is proportional to change. Left to right is increase. Right to left is decrease.
Green is improvement. Red is decline.

		+/-	Status % on:		1/14/2005	3/8/2008
323.33		460.67	+	2-Methylhippurate	460.67 H	323.33 H
	-50.00  75.00		-	3,4-Dimethylhippurate	-50.00 L	75.00 H
42.31		492.19	+	3-Methylhippurate	492.19 H	42.31 H
	-41.05  -16.09		+	Hippurate	-41.05 L	-16.09
	16.67  48.00		+	M + P	48.00 H	16.67
	34.00  52.00		+	Mandelate	52.00 H	34.00 H
	-38.00  -20.59		+	Monoethyl Phthalate	-38.00 L	-20.59
	-5.00  28.29		+	Phenylglyoxylate	28.29 H	-5.00
62.50		127.00	+	Phthalate	127.00 H	62.50 H
	-17.33  1.27		-	Quinolate	1.27	-17.33
	-31.64  -9.25		-	t,t-Muconic Acid	-9.25	-31.64 L
Total Status Deviation					112.45	54.82
Total Status Skew					89.12	39.71

Panel/Subset Comparison Report

51 Year Old Female

Environmental Pollutants Exposure Date: 3/8/2008

Female / Age: 54

Integrative Health Care (6087)

Automotive Sources	1/14/2005		3/8/2008		+/-	
2-Methylhippurate	460.67	H	323.33	H	+	323.33 ← 460.67
3-Methylhippurate	492.19	H	42.31	H	+	42.31 ← 492.19
Mandelate	52.00	H	34.00	H	+	34.00 ← 52.00
Phenylglyoxylate	28.29	H	-5.00		+	-5.00 ← 28.29
M + P	48.00	H	16.67		+	16.67 ← 48.00
t,t-Muconic Acid	-9.25		-31.64	L	-	-31.64 ← -9.25
PSS / PSD	178.65 / 181.73		63.28 / 75.49			

Cosmetic Sources	1/14/2005		3/8/2008		+/-	
Phthalate	127.00	H	62.50	H	+	62.50 ← 127.00
Monoethyl Phthalate	-38.00	L	-20.59		+	-38.00 → -20.59
t,t-Muconic Acid	-9.25		-31.64	L	-	-31.64 ← -9.25
PSS / PSD	26.58 / 58.08		5.90 / 32.01			

Paint and Solvents	1/14/2005		3/8/2008		+/-	
3-Methylhippurate	492.19	H	42.31	H	+	42.31 ← 492.19
Mandelate	52.00	H	34.00	H	+	34.00 ← 52.00
Phenylglyoxylate	28.29	H	-5.00		+	-5.00 ← 28.29
M + P	48.00	H	16.67		+	16.67 ← 48.00
PSS / PSD	155.12 / 155.12		21.99 / 24.49			

Phthalates	1/14/2005		3/8/2008		+/-	
Phthalate	127.00	H	62.50	H	+	62.50 ← 127.00
Monoethyl Phthalate	-38.00	L	-20.59		+	-38.00 → -20.59
Quinolate	1.27		-17.33		-	-17.33 ← 1.27
PSS / PSD	30.09 / 55.42		8.19 / 33.47			

Plastic Sources	1/14/2005		3/8/2008		+/-	
Phthalate	127.00	H	62.50	H	+	62.50 ← 127.00
Monoethyl Phthalate	-38.00	L	-20.59		+	-38.00 → -20.59
Mandelate	52.00	H	34.00	H	+	34.00 ← 52.00
Phenylglyoxylate	28.29	H	-5.00		+	-5.00 ← 28.29
M + P	48.00	H	16.67		+	16.67 ← 48.00
PSS / PSD	43.46 / 58.66		17.52 / 27.75			

Water Sources	1/14/2005		3/8/2008		+/-	
t,t-Muconic Acid	-9.25		-31.64	L	-	-31.64 ← -9.25
Mandelate	52.00	H	34.00	H	+	34.00 ← 52.00
Phenylglyoxylate	28.29	H	-5.00		+	-5.00 ← 28.29
M + P	48.00	H	16.67		+	16.67 ← 48.00
2-Methylhippurate	460.67	H	323.33	H	+	323.33 ← 460.67
3,4-Dimethylhippurate	-50.00	L	75.00	H	-	-50.00 → 75.00
PSS / PSD	88.28 / 108.03		68.73 / 80.94			