

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

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

# Anna

Date: 4/29/2009 (accession: 1382566)

Next Test Due: 4/29/2010

# LabAssist<sup>™</sup> Blood Test Report

# Practitioner

Printed on Thursday, April 30, 2009 for:

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 nondisclosable 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.

PATENTED, U.S. PATENTS 5,746,204 and 6,063,026. OTHER U.S. AND FOREIGN PATENTS PENDING. ALL RIGHTS RESERVED. Copyright (c) 1994-2008 Crayhon Research, Inc.

Anna Female / Age: 57 Client ID:555986644 (8322)

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

					Low Results				
-200	-150	-100	-50	0		% Status	Result	Low	High
					Ultra-Sensitive TSH	-127.86 <b>L</b>	0.01	1.10	2.50
I	I	I.			Basophil Count	-44.30 L	11.40	0.00	200.00
I	I	I.			Basophils	-40.00 L	0.20	0.00	2.00
I.	I	I.			Lymphocyte Count	-38.44 L	1202.70	850.00	3900.00
I	I	I	I.		Lymphocytes	-32.06 L	21.10	15.00	49.00
					Anion Gap	-30.00 L	10.40	8.00	20.00
I	I	I.			Thyroxine (T4)	-30.00 L	6.10	4.50	12.50
1	I	I.	I		Free T4 Index (T7)	-25.00 L	2.00	1.40	3.80

-25%

## High Results

-100	-50	0	50	100		% Status	Result	Low	High
					LDL	89.71 <b>H</b>	157.00	62.00	130.00
1	I.			I	Glucose	61.76 <b>H</b>	103.00	65.00	99.00
I.	I.			I.	B.U.N./Creatinine Ratio	48.99 <b>H</b>	21.84	6.00	22.00
1	I.			T	Free T-3	39.47 <b>H</b>	400.00	230.00	420.00
1	I			I	Uric Acid	38.89 <b>H</b>	6.50	2.50	7.00
	I				sGPT	35.29 <b>H</b>	35.00	6.00	40.00
1	I.			I	T-3 Uptake	34.62 <b>H</b>	33.00	22.00	35.00
I.	I.			I.	Hemoglobin	34.21 <b>H</b>	14.90	11.70	15.50
I.	I		· ·	T	Hematocrit	29.00 <b>H</b>	42.90	35.00	45.00
1	I			I	МСН	27.25 <b>H</b>	31.63	27.00	33.00
				- 1	Calcium	25.00 <b>H</b>	9.80	8.60	10.20
	I		1	I	Chloride	25.00 <b>H</b>	107.00	98.00	110.00

-25%

25%

# **Basic Status Alphabetic**

### **Anna** Female / Age: 57

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

-100	-50	0	50	100		% Status		Result	Low	High
					A/G Ratio	0.16		1.55	1.00	2.10
I.	l		I	I	Albumin	10.00		4.50	3.60	5.10
I.	I		I.	I	Alkaline Phosphatase	9.79		91.00	33.00	130.00
I.	'		1	I.	Anion Gap	-30.00	L	10.40	8.00	20.00
I	1		1	I	B.U.N.	16.67		19.00	7.00	25.00
					B.U.N./Creatinine Ratio	48.99	Н	21.84	6.00	22.00
			1		Basophil Count	-44.30	L	11.40	0.00	200.00
1			1	I.	Basophils	-40.00	L	0.20	0.00	2.00
I.	I.		I	I.	Bilirubin, Total	0.00		0.70	0.20	1.20
1	I		·	1	Calcium	25.00	Н	9.80	8.60	10.20
	'				Calcium/Phosphorus Ratio	0.00		2.80	2.30	3.30
1	I			I	Chloride	25.00	Н	107.00	98.00	110.00
1	I		· ·	I	Cholesterol	24.17		229.00	140.00	260.00
1	1		1	1	CO2	0.00		27.00	21.00	33.00
	1				Creatinine	4.00		0.87	0.60	1.10
					Eosinophil Count	-20.19		159.60	15.00	500.00
	1			I	Eosinophils	-15.00		2.80	0.00	8.00
1	1		· ·	T	Free T-3	39.47	Н	400.00	230.00	420.00
1	'		1	1	Free T4 Index (T7)	-25.00	L	2.00	1.40	3.80
					GGT	-12.69		28.00	3.00	70.00
					Globulin	-8.82		2.90	2.20	3.90
	I			I	Glucose	61.76	н	103.00	65.00	99.00
1			ı	I	HDL-Cholesterol	-24.55		51.00	37.00	92.00
1	I			I	Hematocrit	29.00	Н	42.90	35.00	45.00
					Hemoglobin	34.21	Н	14.90	11.70	15.50
					Iron, Total	11.67		114.00	40.00	160.00
	1		1		LDH	-11.54		170.00	120.00	250.00
1				1	LDL	89.71	H	157.00	62.00	130.00
1			· ·		Lymphocyte Count	-38.44	Ļ	1202.70	850.00	3900.00
	· <b></b> _		· ·		Lymphocytes	-32.06	<u> </u>	21.10	15.00	49.00
			<b>-</b>		MCH	27.25	н	31.63	27.00	33.00
I	1		1	I	MCHC	18.30		34.73	32.00	36.00
1	1		1	1	MCV	5.41		91.08	80.00	100.00
· ·			-		Monocyte Count	-15.11		461.70	200.00	950.00
	1		-		Monocytes	12.31		8.10	0.00	13.00
						-12.47		3864.60	1500.00	7800.00
I	1		I .	1		20.95		67.80	38.00	80.00
	, I		1		Priosphorus	0.00		3.50	2.50	4.50
	· ·		1		Protoin Total	<u> </u>		4.40	3.50	5.30
			1	1		20.00		/.40 / 71	6.20 3.80	8.30
			· · · · · ·		scot	6.00		24.00	10.00	35.00
I	1		1	1	seet	35 29	н	35.00	6.00	40.00
	1				Sodium	-4 55	••	140.00	135.00	146.00
1					T-3 Uptake	34 62	н	33 00	22.00	35.00
1	'		I	I	Thyroxine (T4)	-30.00	 L	6.10	4.50	12 50
			1	I	Trialvcerides	20.67	-	106.00	0.00	150.00
					Ultra-Sensitive TSH	-127.86	L	0.01	1.10	2.50
1	1		· ·	1	Uric Acid	38.89	H	6.50	2.50	7.00
I	1		1	I	W.B.C.	-22.86	-	5.70	3.80	10.80
	-25	i% 2	25%		Total Status Deviation	23.40				
					Total Status Skew	3.13				

### **Nutritional Support**

The following supplements may help to balance your biochemistry.	Consult your practitioner.
1-Cardiovascular Health Protocol     See Nutrition Detail	<ul> <li>1-Increase Fluid Intake</li> <li>6-8 glasses daily</li> </ul>
1-Multivitamin w/Glucose Support 2x daily	<ul> <li>1-Oral Electrolyte - Standard Formula</li> <li>2x daily</li> </ul>
3-Chromium Picolinate 1x daily 200 mcg	H - Billberry 1 - 3 times daily
H - Garlic 1 - 3 times daily	H - Ginseng (Panax) 1 - 3 times daily
H - Ginseng (Panax) 1 - 3 times daily	H - Milk thistle 1 - 3 times daily
H - Nettle 1 - 3 times daily	

### Nutritional Supplements to AVOID

The following supplements may aggravate already out-of-balance biochemistry.

Calcium	Molybdenum	Selenium
---------	------------	----------

### **Food Recommendations**

The following foods may help to balance or strengthen your biochemistry.

Apricots, Dried	Artichoke	Black Pepper	Cantaloupe
Cherries	Eggs	Grapefruit	Green Beans
Guava	Haddock	Halibut	Loganberries
Onions	Prunes	Red Peppers	Shellfish
Swiss Chard			

### Foods to AVOID

The following foods may aggravate already out-of-balance biochemistry.

Brazil Nuts	Cucumber	Dairy Products	Hydrogenated Fats
Soybeans			

### **Results Missing From Test**

A more comprehensive report would have been generated if the following results were provided.

3-Methylhippurate	Hippurate	t,t-Muconic Acid	Mandelate
Phenylglyoxylate	Phthalate	Quinolinate	Monoethyl Phthalate

### **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
Thyroid	51.39%	-21.75%
Lipid	39.77%	27.50%
Nitrogen	27.14%	27.14%
Cardiac Marker	26.65%	15.81%
Differential Count	26.10%	-26.10%
Anti Oxidant Status	25.43%	15.43%

### Lab Reported out-of-range Values

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

#### Ultra-Sensitive TSH (-127.86%)

TSH, produced by the anterior pituitary gland, causes the release and distribution of stored thyroid hormones. When T4 and T3 are too high, TSH secretion decreases. When T4 and T3 are low, TSH secretion increases. Decreased levels of TSH are seen in hyperthyroidism and secondary and tertiary hypothyroidism.

#### Drugs which may have an adverse affect:

Anabolic Steroids, Corticosteroids

#### LDL ( 89.71%)

LDL is the cholesterol rich remnants of the lipid transport vehicle VLDL (very-low density lipoproteins). There have been many studies showing correlations between high levels of LDL and arterial artherosclerosis. Due to the expense of direct LDL measurement, a calculation known as the Friedewald formula is used (Total Cholesterol - HDL Cholesterol - Triglycerides/5). When Triglyceride levels are greater than 400, this method is not accurate. Increased levels are seen in high cholesterol diets, nephrotic syndromes, multiple myeloma, hepatic obstruction or disease, anorexia nervosa, diabetes, chronic renal failure, and premature coronary heart disease.

#### Drugs which may have an adverse affect: Clofibrate

#### Glucose ( 61.76%)

Glucose, formed by the digestion of carbohydrates and the conversion of glycogen by the liver, is the primary source of energy for most cells. Insulin, glucagon, thyroid hormone, liver enzymes, and adrenal hormones regulate it. It is elevated in diabetes, liver disease, obesity, pancreatitis, steroids, stress, or diet.

#### Drugs which may have an adverse affect:

Acetaminophen, Acetazolamide, ACTH, Albuterol, Amitriptyline, Aspirin, Chlorpromazine, Clonidine, Corticosteroids, Cortisone, Dextrothyroxine, Epinephrine, Estrogens, Furosemide, Gemfibrozil, Haloperidol, Hydralazine, Imipramine, Indomethacin, Levodopa, Lithium Carbonate, Mercaptopurine, Methyldopa, Morphine, Nifedipine, Nitrofurantoin, Phenelzine, Phenylbutazone, Phenytoin, Polythiazide, Pravastatin, Prednisone, Protriptyline, Reserpine

### **Additional Tests**

The following additional lab tests may help in diagnosis.

#### Consider ordering Environmental Pollutants Biomarker urine test.

Rationale: % Status of Glucose is > 50%

#### Consider ordering Free-T3, Free-T4, Total T4, T3-Uptake Rationale: % Status of Ultra-Sensitive TSH is < -50%

Copyright (c) 1994-2008 Crayhon Research, Inc.

## Additional Tests (continued)

#### **Consider ordering glycohemoglobin** Rationale: % Status of Glucose is > 50%

### Consider ordering PTH profile

Rationale: Panel Thyroid Status Deviation is > 50%



Cholesterol, Eosinophils, Eosinophil Count, Potassium, Sodium. This panel is meant to assess adrenal function. A deficiency in this panel may indicate adrenal stress. The deviation was below 25% so no abnormalities were found.



## <u>Allergy</u>

Anna

Eosinophils, Globulin, Lymphocytes[L], Monocytes, W.B.C.. This panel is used to assess the individual's response to potential allergens. Abnormalities in this panel may indicate the need for additional allergy testing. The deviation was below 25% so no abnormalities were found.

# Anti Oxidant Status

Anion Gap[L], Bilirubin, Total, Chloride[H], Cholesterol, Glucose[H], Iron, Total.

This panel profile may indicate that the patient needs to increase their intake of antioxidants and make appropriate lifestyle changes (smoking, alcohol, reduce stress, etc.). A varied, broad spectrum of antioxidants is preferable to one or two alone.

# Athletic Potential

B.U.N./Creatinine Ratio[H], Cholesterol, CO2, Creatinine, LDH, Potassium, Protein, Total, Sodium, HDL-Cholesterol.

This panel is used to help assess athletic potential. Keeping this panel in a normal range may be helpful in improving athletic performance and reducing the risk of injury. The deviation was below 25% so no abnormalities were found.



PSD: 25.43

PSS: 15.43

## Bone/Joint Albumin, Alkaline Phosphatase, Calcium[H], Neutrophils, Phosphorus, Protein, Total, Uric Acid[H]. This panel may be helpful in assessing bone and joint health. Keeping the elements of this panel in a normal range may be helpful in reducing the risk of osteoporosis and other bone and joint disorders. The deviation was below 25% so no abnormalities were found.

Anna







individual markers in order to determine causative factors.



# Anna

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.

ACTH Allopurinol Anabolic Steroids(3) Carbamazepine Clofibrate(2) Corticosteroids(4) Dextrothyroxine Estrogens(2) Furosemide(3) Guanethidine(2) Hydroxyurea(2) Itraconazole(2) Levothyroxine **MAO** Inhibitors Methyldopa(4) Nitrofurantoin(2) Phenelzine(3) Piroxicam(2) Procainamide(2) Protriptyline(2) Sildenafil(2) Sulfamethoxazole(3) Tamoxifen Valproic Acid(2)

Acetaminophen(3) Amitriptyline(2) Antacids Chlorothiazide Clonidine(2) Cortisone(3) Diazepam Fluorides Gemfibrozil Haloperidol(2) Ibuprofen(3) Kanamycin Lincomycin Mercaptopurine(3) Morphine(2) Paramethadione Phenobarbital Polythiazide(4) Progesterone(2) Reserpine(2) Simvastatin Sulfasalazine Tetracycline Vardenafil(2)

Acetazolamide(3) Ammonium Chloride Aspirin(6) Chlorpromazine(2) Codeine Coumarin Epinephrine(2) Fluphenazine Gentamicin(2) Hvdralazine(3) Imipramine(2) Ketocanazole Lithium Carbonate(4) Methimazole Naproxen Penicillamine Phenylbutazone(4) Pravastatin(3) Progestins(2) Rifampin(3) Spectinomycin Sulfisoxazole Triameterene

Albuterol Ampicillin(2) Busulfan Clindamycin Colchicine Desipramine Erythromycin Flurazepam Griseofulvin Hydrocortisone(2) Indomethacin(3) Levodopa(3) Lovastatin Methotrexate(2) Nifedipine(2) Penicillin Phenytoin(2) Prednisone(4) Propranolol(3) Salicylates(2) Sulfamethizole Tadalafil(2) Trimethadione

# Anna

### Female / Age: 57

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-Cardiovascular Health Protocol See Nutrition Det	ail	Rationale	
CARDIOVASCULAR RISK PROTOCOL This pattern indicates suboptimal operation of fat metabolism, interfering with efficient cellular energy production. Various pathways being over- or under- utilized can be nutritionally supported with digestive enzymes, B-Complex, Lipoic acid, and CoEnzyme Q10 supplementation. Recommended nutrients include: B-Complex (2x daily) Lipoic Acid (2x daily) CoEnzyme Q10 (2x 50 mg daily) Digestive Enzymes (1-2 with each meal) Wallace, DC, Mitochondrial genetics: a paradigm for aging and	Decreased	Normal Cholesterol HDL-Cholesterol	Increased LDL Uric Acid
degenerative diseases?, Science, 256:628-632 (1992). Corral-Debrinski, Shffner JM, Lott MY, Wallace DC, Association of mitochondrial DNA damage with aging and coronary artherosclerotic heart disease. Mutat Res, 275:169-180 (1992).			
<b>1-Increase Fluid Intake</b> 6-8 glasses daily INCREASE FLUID INTAKE When the concentration of Hemoglobin, Hematocrit and Red Blood Cells are increased, it is a good indicator of the need to increase fluid intake. Fluid intake should include a well rounded group of fluids including, but not limited to water.	<u>Decreased</u>	<u>Normal</u> R.B.C.	Increased Hematocrit Hemoglobin
<b>1-Multivitamin w/Glucose Support</b> 2x daily MULTIVITAMIN - GLUCOSE SUPPORT A multivitamin with nutrients to help moderate glucose levels may be helpful in balancing your chemistry.	<u>Decreased</u>	<u>Normal</u> Triglycerides	Increased Glucose
<b>1-Oral Electrolyte - Standard Formula</b> 2x daily ORAL ELECTROLYTE The main electrolytes in the human body are sodium, potassium, phosphorus, calcium, chloride, magnesium and bicarbonate. During illness, the equilibrium present in healthy individuals, is disturbed. A well balanced formula is helpful in restoring a state of equilibrium. A sports formula will have greater levels of bicarbonate yet still keeping the proportion of the other salts in line.	<u>Decreased</u>	Normal Potassium CO2 Sodium	Increased
<b>3-Chromium Picolinate</b> 1x daily 200 mcg CHROMIUM (Cr) Constituent of GTF (glucose tolerance factor), works with insulin promoting glucose uptake. Functions in metabolism in nucleic acids, lipid metabolism, cholesterol and triglycerides.	<u>Decreased</u>	<u>Normal</u> Cholesterol Triglycerides	Increased Glucose
<b>H - Billberry</b> 1 - 3 times daily BILBERRY Billberry (Vaccinium myrtillus) is an herb often used for the control of insulin levels and may help halt or prevent macular degeneration. It has also been reported to be effective in lowering triglyceride levels. As with any herb, caution should be taken with its use. Bilberry also may	<u>Decreased</u>	<mark>Normal</mark> Iron, Total Triglycerides	Increased Glucose

interfere with iron absorption.

# Anna

### Female / Age: 57

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.

<b>H - Garlic</b> 1 - 3 times daily GARLIC Garlic's use has been reported to be beneficial in lowering blood lipid (fat) levels. May cause unwanted bodily odors. As with any herb, caution should be taken with its use.	<u>Decreased</u>	<u>Rationale</u> <u>Normal</u> Cholesterol	Increased LDL
<b>H - Ginseng (Panax)</b> 1 - 3 times daily GINSENG Also known as Korean Ginseng (Panax ginseng), this herb has shown benefits to those suffering from fatigue, stress, compromised immune systems and diabetes. As with any herb, caution should be taken with its use. Women who experience breast tenderness should discontinue its use.	Decreased	<u>Normal</u>	Increased Glucose
<b>H - Ginseng (Panax)</b> 1 - 3 times daily GINSENG Also known as Korean Ginseng (Panax ginseng), this herb has shown benefits to those suffering from fatigue, stress, compromised immune systems and diabetes. As with any herb, caution should be taken with its use. Women who experience breast tenderness should discontinue its use.	Decreased Lymphocytes Lymphocyte Count	<u>Normal</u>	Increased
<b>H - Milk thistle</b> 1 - 3 times daily MILK THISTLE The herb milk thistle (Silybum marianum) has been reported to be effective in improving liver function. As with all herbs, caution should be taken with its use. Use only under the direction of a health care practitioner if you have chronic liver disease.	Decreased	<u>Normal</u> sGOT	<u>Increased</u> sGPT
<b>H - Nettle</b> 1 - 3 times daily NETTLE Also known as stinging nettle, research has reported that this herb may be helpful at reducing chlorides. It also has a mild diuretic effect and has been used to relieve benign prostatic hypertrophy. As with all herbs, caution should be taken with its use.	<u>Decreased</u>	<u>Normal</u> B.U.N.	Increased Chloride
AVOID THE FOLLOWING SUPPLEMENTS	5		
<b>AVOID Calcium</b> CALCIUM (Ca) Major cation partly responsible for cell membrane structure and function required for cardiac contraction, regulates hormones, heart respiration, cell division and body fluid bufferings.	<u>Decreased</u>	<u>Normal</u>	<u>Increased</u> Calcium
<b>AVOID Molybdenum</b> MOLYBDENUM (Mo) Vital constituent of xanthine oxidase (uric acid production), aldahyde and sulfate oxidase. Functions in transfer of electrons for redox process and completion of sulfur amino acid catabolism. It is also iinvolved in hemoglobin synthesis. Molybdenum also inhibits absorption Cu and Fe.	<u>Decreased</u>	<u>Normal</u>	Increased Uric Acid
AVOID Selenium SELENIUM (Se) Cofactor in glutathione peroxidase, in detoxification of peroxides, free radicals and thyroid hormone deionases.	Decreased Thyroxine (T4)	<u>Normal</u>	Increased T-3 Uptake

# Anna

## Female / Age: 57

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.

# **Review Cardiovascular Risk Factors ()**

<u>Decreased</u>

<u>Normal</u> -24.55 HDL-Cholesterol 66.67% (4 of 6)

Increased 24.17 Cholesterol 61.76 Glucose 20.67 Triglycerides 38.89 Uric Acid 89.71 LDL

Review family history or personal history of cardiovascular risk factors such as smoking, excessive alcohol intake, high fat diet, and/or sedentary lifestyle.