Anna

Analysis based on lab test(s) from: January 2011

Next recommended test date is: 4/20/2011

Bio-Clarity™ Health Assessment

Analysis for: Foundational Wellness & Hair Elements

Practitioner

Health Director, LLC
www.healthdirector.com

Table of Contents

How to read your reference ranges

You may notice the reference ranges on your report don't match the lab's reference ranges. That's because each variable in your test has a different reference range. For example, the uric acid range is different from the potassium range.

Your report ranks all of these differing ranges into one easy-to-read chart that contains four health zones where:

- Zero (0) marks the middle of the reference range and represents balance
- +50% = the high end of the reference range
- -50% = the low end of the reference range

Your four health zones are:

	Results 0-25% are in the healthy zone. Congratulations, you're doing well.
	Results 25-50% are in the early warning zone. While these values are still in the reference range, watch these areas because they're trending towards imbalance where symptoms could eventually show. Use this information as a prevention tool.
	Results 50-100% are in the high risk zone. Health conditions you may have could be due to these imbalances.
	Results over 100% are in the critical zone. Your body is screaming for attention here. Address all black areas immediately.

Sometimes, our reference ranges differ…

Generally, our reference ranges match the standard ranges from the lab testing companies. But when recent medical studies prove otherwise, we use other reference ranges.

For example, reference ranges like the one for Ultrasensitive TSH is based on the population of people in the U.S. But numerous studies prove 3 out of 10 people have thyroid problems. This greatly skews the range.

In the Colorado Prevalence Thyroid study, 40,000 people were monitored. Their results suggest the range for healthy people should be 1.1 to 2.5uIU/mL. This is the range we use. Some labs use a wider range of .5-5.5uIU/mL.

By using the more accurate 1.1 to 2.5 range, we determine what's healthy by comparing you to a healthy population - rather than basing "healthy" on a sick population.

Ok, let's get started with reading your report…

Biochemical Imbalances (High/Low Summary)

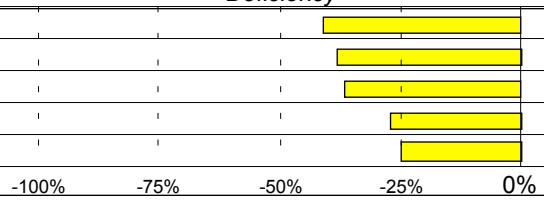
Anna
Female / Age: 58

Plasma Amino Acids: 1/18/2011

This page summarizes your biggest imbalances, both in excess and deficiency. All results that have a % Imbalance greater than 25% are shown. Results greater than 50%, and therefore out of the reference range, are bolded. The % Imbalance measures how far each result is from the middle of the lab reference range. It is also a way to compare items that have different reference ranges. The original data from the lab company is shown on the right side. *See footnote for details and page 1 for a full explanation of the color ranges.

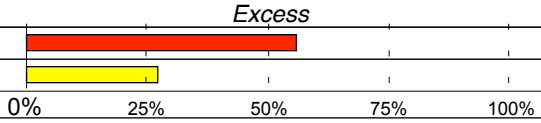
Low Results

	% Imbalance	*Deficiency*	Lab Result	*Reference Range Low*	*High*
Aspartic Acid	-41%		3.90	3.00	13.00
Glutamic Acid	-38%		46.00	24.00	214.00
Glycine	-37%		204.00	155.00	518.00
1-Methylhistidine	-27%		12.00	0.00	52.00
a-Aminoadipic Acid	-25%		0.50	0.00	2.00



High Results

	% Imbalance	*Excess*	Lab Result	*Reference Range Low*	*High*
Cystine	**56%**		**29.60**	1.00	28.00
3-Methylhistidine	27%		7.70	0.00	10.00



For the full discussion of out-of-range results, see page 10.

For the alphabetical listing of all Plasma Amino Acids results, see page 6.

0% is the middle of the reference range, which represents balance. +50% = high end of the reference range. -50% = low end of the reference range.

healthy zone 0-25% | early warning zone 25-50% | high risk zone 50-100% | critical zone >100%

Biochemical Imbalances (High/Low Summary)

Anna
Female / Age: 58

Blood Test : 1/18/2011

This page summarizes your biggest imbalances, both in excess and deficiency. All results that have a % Imbalance greater than 25% are shown. Results greater than 50%, and therefore out of the reference range, are bolded. The % Imbalance measures how far each result is from the middle of the lab reference range. It is also a way to compare items that have different reference ranges. The original data from the lab company is shown on the right side. *See footnote for details and page 1 for a full explanation of the color ranges.

Low Results

	% Imbalance	Deficiency	Lab Result	Reference Range Low	Reference Range High
Calcium/Phosphorus Ratio	**-274%**		**0.06**	2.30	3.30
Ultra-Sensitive TSH	**-128%**		**0.00**	1.10	2.50
Lymphocyte Count	-33%		1352.00	700.00	4500.00
W.B.C.	-32%		5.20	4.00	10.50
Neutrophil Count	-31%		2964.00	1800.00	7800.00

-100% -75% -50% -25% 0%

High Results

	% Imbalance	Excess	Lab Result	Reference Range Low	Reference Range High
LDL	**84%**		**153.00**	62.00	130.00
Hematocrit	49%		43.90	34.00	44.00
Hemoglobin	41%		14.70	11.50	15.00
Triglycerides	38%		133.00	10.00	150.00
sGPT	34%		30.00	4.00	35.00
Glucose	32%		93.00	65.00	99.00
Monocytes	28%		11.00	4.00	13.00
Cholesterol	28%		233.00	140.00	260.00
R.B.C.	26%		4.79	3.80	5.10

0% 25% 50% 75% 100%

For the full discussion of out-of-range results, see page 10.

For the alphabetical listing of all Blood Test results, see page 7.

0% is the middle of the reference range, which represents balance. +50% = high end of the reference range. -50% = low end of the reference range.

healthy zone 0-25% | early warning zone 25-50% | high risk zone 50-100% | critical zone >100%

Biochemical Imbalances (High/Low Summary)

Anna
Female / Age: 58

Hair Analysis: 12/14/2010

This page summarizes your biggest imbalances, both in excess and deficiency. All results that have a % Imbalance greater than 25% are shown. Results greater than 50%, and therefore out of the reference range, are bolded. The % Imbalance measures how far each result is from the middle of the lab reference range. It is also a way to compare items that have different reference ranges. The original data from the lab company is shown on the right side. *See footnote for details and page 1 for a full explanation of the color ranges.

Low Results

	% Imbalance	Deficiency	Lab Result	Reference Range Low	Reference Range High
Germanium	**-80%**		**0.03**	0.03	0.04
Lithium	**-73%**		**0.00**	0.01	0.02
Calcium	**-68%**		**135.00**	300.00	1200.00
Iron	**-64%**		**5.70**	7.00	16.00
Cobalt	**-59%**		**0.00**	0.00	0.04
Ca/Mg	**-53%**		**3.14**	4.00	30.00
CA/P	**-52%**		**0.78**	1.00	12.00
Manganese	**-52%**		**0.07**	0.08	0.60
Molybdenum	**-50%**		**0.02**	0.02	0.05
Bismuth	-50%		0.00	0.00	2.00
Strontium	-48%		0.61	0.50	7.60
Sodium	-48%		24.00	20.00	250.00
Barium	-46%		0.09	0.00	2.00
Potassium	-44%		12.00	8.00	75.00
Uranium	-42%		0.00	0.00	0.06
Zirconium	-41%		0.05	0.02	0.42
Magnesium	-41%		43.00	35.00	120.00
Nickel	-37%		0.04	0.00	0.30
Tin	-37%		0.04	0.00	0.30
Rubidium	-35%		0.02	0.01	0.10
Copper	-35%		15.00	11.00	37.00
Na/K	-34%		2.00	0.50	10.00
Lead	-30%		0.12	0.00	0.60
Antimony	-30%		0.01	0.00	0.05
Cadmium	-28%		0.01	0.00	0.05
Aluminum	-27%		1.60	0.00	7.00
Boron	-27%		0.54	0.25	1.50

-100% -75% -50% -25% 0%

High Results

	% Imbalance	Excess	Lab Result	Reference Range Low	Reference Range High
Iodine	**527%**		**9.20**	0.25	1.80
Vanadium	**103%**		**0.09**	0.02	0.06
Selenium	**50%**		**1.10**	0.55	1.10
Arsenic	42%		0.05	0.00	0.06
Sulfur	33%		49000.00	44000.00	50000.00
Mercury	31%		0.65	0.00	0.80

0% 25% 50% 75% 100%

For the full discussion of out-of-range results, see page 10.

For the alphabetical listing of all Hair Analysis results, see page 8.

0% is the middle of the reference range, which represents balance. +50% = high end of the reference range. -50% = low end of the reference range.

healthy zone 0-25% | early warning zone 25-50% | high risk zone 50-100% | critical zone >100%

Biochemical Imbalances (High/Low Summary)

Anna
Female / Age: 58

Urine Organic Acids: 1/19/2011

This page summarizes your biggest imbalances, both in excess and deficiency. All results that have a % Imbalance greater than 25% are shown. Results greater than 50%, and therefore out of the reference range, are bolded. The % Imbalance measures how far each result is from the middle of the lab reference range. It is also a way to compare items that have different reference ranges. The original data from the lab company is shown on the right side. *See footnote for details and page 1 for a full explanation of the color ranges.

Low Results

	% Imbalance	*Deficiency*	Lab Result	*Reference Range Low*	*High*
Indican	-49%		0.90	0.00	80.00
D-Lactate	-43%		0.40	0.00	5.50
Succinate	-39%		3.02	1.10	18.30
Tricarballylate	-35%		0.24	0.00	1.60
Adipate	-31%		1.10	0.00	5.70
Homovanillate	-30%		2.76	1.50	7.70
Vanilmandelate	-26%		1.75	1.10	3.80
a-Hydroxybutyrate	-25%		0.30	0.00	1.20
a-Ketoisovalerate	-25%		0.15	0.00	0.60
		-100% -75% -50% -25% 0%			

High Results

	% Imbalance	*Excess*	Lab Result	*Reference Range Low*	*High*
2-Methylhippurate	**118%**		**0.08**	0.00	0.05
D-Arabinitol	**103%**		**49.00**	0.00	32.00
Benzoate	**99%**		**3.73**	0.00	2.50
Formiminoglutamic Acid	47%		1.40	0.00	1.45
p-Hydroxyphenyllactate	34%		0.59	0.00	0.70
Phenylpropionate	30%		0.40	0.00	0.50
Pyroglutamate	28%		47.00	0.00	60.00
Isocitrate	27%		79.08	36.00	92.00
a-Ketoisocaproate	27%		0.30	0.00	0.39
		0% 25% 50% 75% 100%			

For the full discussion of out-of-range results, see page 10.

For the alphabetical listing of all Urine Organic Acids results, see page 9.

0% is the middle of the reference range, which represents balance. +50% = high end of the reference range. -50% = low end of the reference range.

healthy zone 0-25% | early warning zone 25-50% | high risk zone 50-100% | critical zone >100%

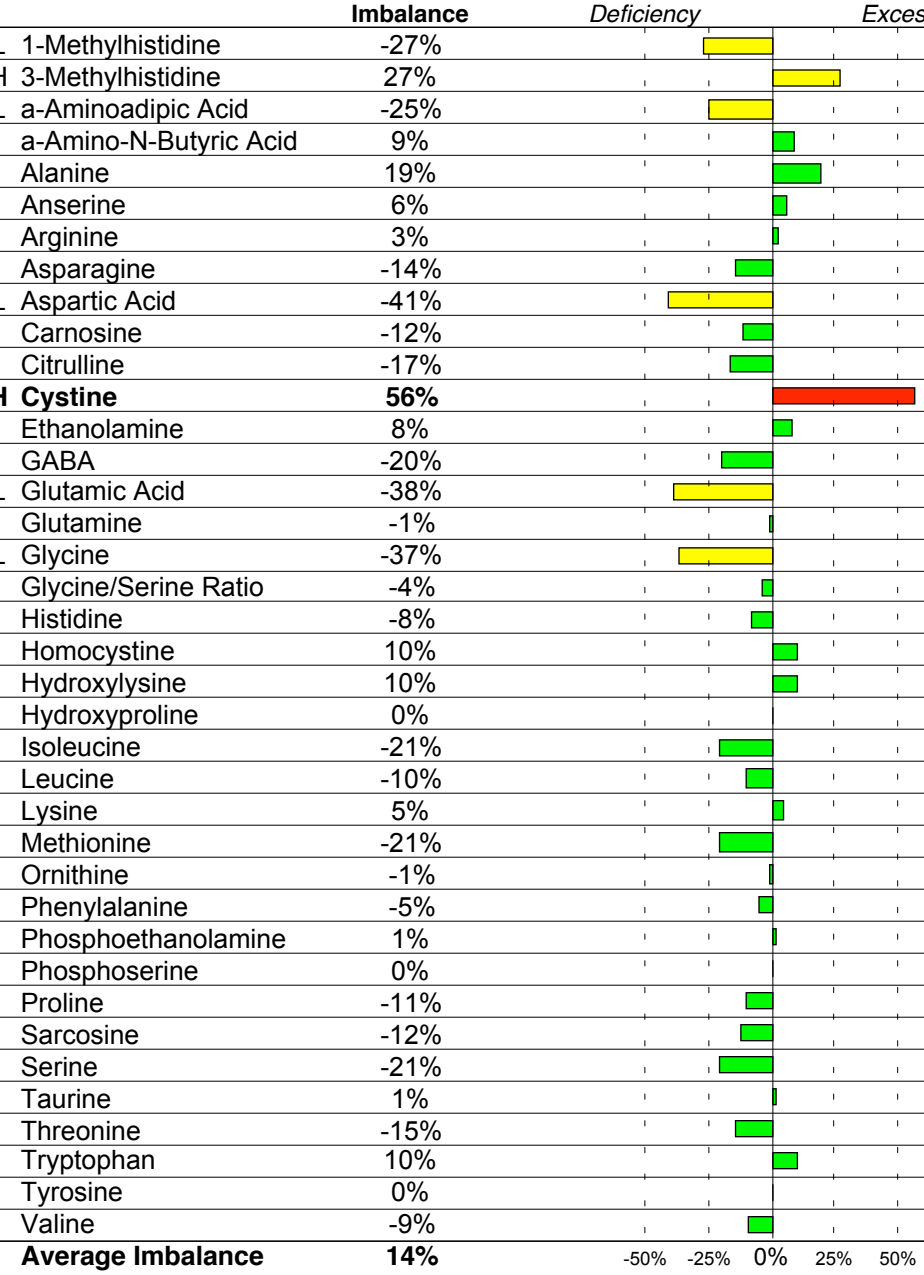
Biochemical Imbalances (Complete Alphabetic)

Anna
Female / Age: 58

Plasma Amino Acids: 1/18/2011

This section lists all of the lab measurements provided, in alphabetical order. Results that have a % Imbalance greater than 50%, and therefore out of the reference range, are bolded. The % Imbalance measures how far each result is from the middle of the lab reference range. It is also a way to compare items that have different reference ranges. The original data from the lab company is shown on the right side. *See footnote for details and page 1 for a full explanation of the color ranges.

		% Imbalance	Deficiency / Excess	Lab Result	Reference Range Low	Reference Range High
L	1-Methylhistidine	-27%		12.00	0.00	52.00
H	3-Methylhistidine	27%		7.70	0.00	10.00
L	a-Aminoadipic Acid	-25%		0.50	0.00	2.00
	a-Amino-N-Butyric Acid	9%		23.00	0.00	39.00
	Alanine	19%		542.00	230.00	681.00
	Anserine	6%		24.00	0.00	43.00
	Arginine	3%		86.00	29.00	137.00
	Asparagine	-14%		52.00	31.00	90.00
L	Aspartic Acid	-41%		3.90	3.00	13.00
	Carnosine	-12%		2.30	0.00	6.00
	Citrulline	-17%		31.00	18.00	57.00
H	**Cystine**	**56%**		**29.60**	1.00	28.00
	Ethanolamine	8%		6.90	0.00	12.00
	GABA	-20%		0.60	0.00	2.00
L	Glutamic Acid	-38%		46.00	24.00	214.00
	Glutamine	-1%		621.00	372.00	876.00
L	Glycine	-37%		204.00	155.00	518.00
	Glycine/Serine Ratio	-4%		2.19	1.50	3.00
	Histidine	-8%		81.00	57.00	114.00
	Homocystine	10%		0.60	0.00	1.00
	Hydroxylysine	10%		0.60	0.00	1.00
	Hydroxyproline	0%		13.00	0.00	26.00
	Isoleucine	-21%		55.00	35.00	104.00
	Leucine	-10%		123.00	74.00	196.00
	Lysine	5%		228.00	120.00	318.00
	Methionine	-21%		24.00	14.00	48.00
	Ornithine	-1%		72.00	28.00	117.00
	Phenylalanine	-5%		66.00	42.00	95.00
	Phosphoethanolamine	1%		3.60	0.00	7.00
	Phosphoserine	0%		0.50	0.00	1.00
	Proline	-11%		203.00	99.00	363.00
	Sarcosine	-12%		7.60	0.00	20.00
	Serine	-21%		93.00	60.00	172.00
	Taurine	1%		84.00	29.00	136.00
	Threonine	-15%		123.00	73.00	216.00
	Tryptophan	10%		62.00	31.00	83.00
	Tyrosine	0%		74.00	38.00	110.00
	Valine	-9%		237.00	146.00	370.00
	Average Imbalance	**14%**	-50% -25% 0% 25% 50%			
	Direction of Imbalance	**Deficiency**				



0% is the middle of the reference range, which represents balance. +50% = high end of the reference range. -50% = low end of the reference range.

healthy zone 0-25% | early warning zone 25-50% | high risk zone 50-100% | critical zone >100%

Biochemical Imbalances (Complete Alphabetic)

Anna
Female / Age: 58

Blood Test : 1/18/2011

The "% Imbalance" measures how far the lab result is from the middle of the reference range. *See footnote for details.

		% Imbalance	Deficiency / Excess	Lab Result	Reference Range Low	Reference Range High
	A/G Ratio	-12%		1.63	1.10	2.50
	Albumin	19%		4.40	3.50	4.80
	Alkaline Phosphatase	-2%		92.00	25.00	165.00
	Anion Gap	22%		15.20	8.00	18.00
	B.U.N.	2%		16.00	5.00	26.00
	B.U.N./Creatinine Ratio	11%		17.58	6.00	25.00
	Basophil Count	-24%		52.00	0.00	200.00
	Basophils	0%		1.00	0.00	2.00
	Bilirubin, Total	-5%		0.60	0.10	1.20
	Calcium	12%		9.80	8.50	10.60
L	**Calcium/Phosphorus Ratio**	**-274%**		**0.06**	2.30	3.30
	Chloride	14%		104.00	97.00	108.00
H	Cholesterol	28%		233.00	140.00	260.00
	CO2	-17%		24.00	20.00	32.00
	Creatinine	-9%		0.91	0.50	1.50
	Eosinophil Count	15%		260.00	0.00	400.00
	Eosinophils	21%		5.00	0.00	7.00
	GGT	18%		25.00	4.00	35.00
	Globulin	-10%		2.70	1.50	4.50
H	Glucose	32%		93.00	65.00	99.00
	HDL-Cholesterol	-14%		53.00	35.00	85.00
H	Hematocrit	49%		43.90	34.00	44.00
H	Hemoglobin	41%		14.70	11.50	15.00
	Iron, Total	17%		115.00	35.00	155.00
H	**LDL**	**84%**		**153.00**	62.00	130.00
L	Lymphocyte Count	-33%		1352.00	700.00	4500.00
	Lymphocytes	-13%		26.00	14.00	46.00
	MCH	3%		30.69	27.00	34.00
	MCHC	-13%		33.49	32.00	36.00
	MCV	15%		91.65	80.00	98.00
	Monocyte Count	2%		572.00	100.00	1000.00
H	Monocytes	28%		11.00	4.00	13.00
L	Neutrophil Count	-31%		2964.00	1800.00	7800.00
	Neutrophils	0%		57.00	40.00	74.00
	Potassium	-9%		4.20	3.50	5.20
	Protein, Total	-6%		7.10	6.00	8.50
H	R.B.C.	26%		4.79	3.80	5.10
	sGOT	-3%		23.00	8.00	40.00
H	sGPT	34%		30.00	4.00	35.00
	Sodium	-10%		139.00	135.00	145.00
	Thyroxine (T4)	-15%		7.10	4.50	12.00
H	Triglycerides	38%		133.00	10.00	150.00
L	**Ultra-Sensitive TSH**	**-128%**		**0.00**	1.10	2.50
	Vitamin D,25-OH,D3	14%		75.40	32.00	100.00
L	W.B.C.	-32%		5.20	4.00	10.50
	Average Imbalance	**26%**	-50% -25% 0% 25% 50%			
	Direction of Imbalance	**Deficiency**				

0% is the middle of the reference range, which represents balance. +50% = high end of the reference range. -50% = low end of the reference range.

healthy zone 0-25% | early warning zone 25-50% | high risk zone 50-100% | critical zone >100%

Biochemical Imbalances (Complete Alphabetic)

Anna
Female / Age: 58

Hair Analysis: 12/14/2010

This section lists all of the lab measurements provided, in alphabetical order. Results that have a % Imbalance greater than 50%, and therefore out of the reference range, are bolded. The % Imbalance measures how far each result is from the middle of the lab reference range. It is also a way to compare items that have different reference ranges. The original data from the lab company is shown on the right side. *See footnote for details and page 1 for a full explanation of the color ranges.

		% Imbalance	Deficiency / Excess	Lab Result	Reference Range Low	Reference Range High
L	Aluminum	-27%		1.60	0.00	7.00
L	Antimony	-30%		0.01	0.00	0.05
H	Arsenic	42%		0.05	0.00	0.06
L	Barium	-46%		0.09	0.00	2.00
	Beryllium	0%		0.01	0.00	0.02
L	Bismuth	-50%		0.00	0.00	2.00
L	Boron	-27%		0.54	0.25	1.50
L	**Ca/Mg**	**-53%**		**3.14**	4.00	30.00
L	**CA/P**	**-52%**		**0.78**	1.00	12.00
L	Cadmium	-28%		0.01	0.00	0.05
L	**Calcium**	**-68%**		**135.00**	300.00	1200.00
	Chromium	-18%		0.48	0.40	0.65
L	**Cobalt**	**-59%**		**0.00**	0.00	0.04
L	Copper	-35%		15.00	11.00	37.00
L	**Germanium**	**-80%**		**0.03**	0.03	0.04
H	**Iodine**	**527%**		**9.20**	0.25	1.80
L	**Iron**	**-64%**		**5.70**	7.00	16.00
L	Lead	-30%		0.12	0.00	0.60
L	**Lithium**	**-73%**		**0.00**	0.01	0.02
L	Magnesium	-41%		43.00	35.00	120.00
L	**Manganese**	**-52%**		**0.07**	0.08	0.60
H	Mercury	31%		0.65	0.00	0.80
L	**Molybdenum**	**-50%**		**0.02**	0.02	0.05
L	Na/K	-34%		2.00	0.50	10.00
L	Nickel	-37%		0.04	0.00	0.30
	Phosphorus	-16%		174.00	150.00	220.00
	Platinum	10%		0.00	0.00	0.00
L	Potassium	-44%		12.00	8.00	75.00
L	Rubidium	-35%		0.02	0.01	0.10
H	**Selenium**	**50%**		**1.10**	0.55	1.10
	Silver	-3%		0.07	0.00	0.15
L	Sodium	-48%		24.00	20.00	250.00
L	Strontium	-48%		0.61	0.50	7.60
H	Sulfur	33%		49000.00	44000.00	50000.00
	Thallium	0%		0.00	0.00	0.00
	Thorium	0%		0.00	0.00	0.00
L	Tin	-37%		0.04	0.00	0.30
	Titanium	16%		0.46	0.00	0.70
L	Uranium	-42%		0.00	0.00	0.06
H	**Vanadium**	**103%**		**0.09**	0.02	0.06
	Zinc	13%		190.00	140.00	220.00
L	Zirconium	-41%		0.05	0.02	0.42
	Zn/Cd	0%		999.00	800.00	1198.00
	Zn/Cu	4%		12.70	4.00	20.00
	Average Imbalance	**48%**	-50% -25% 0% 25% 50%			
	Direction of Imbalance	**Deficiency**				

0% is the middle of the reference range, which represents balance. +50% = high end of the reference range. -50% = low end of the reference range.

healthy zone 0-25% | early warning zone 25-50% | high risk zone 50-100% | critical zone >100%

Biochemical Imbalances (Complete Alphabetic)

Anna
Female / Age: 58

Urine Organic Acids: 1/19/2011

The "% Imbalance" measures how far the lab result is from the middle of the reference range. *See footnote for details.

		% Imbalance	Deficiency / Excess	Lab Result	Reference Range Low	Reference Range High
H	**2-Methylhippurate**	**118%**		**0.08**	0.00	0.05
	5-Hydroxyindoleacetate	-11%		3.10	1.50	5.60
	8-Hydroxy-2-deoxyguan	-1%		2.60	0.00	5.30
L	Adipate	-31%		1.10	0.00	5.70
L	a-Hydroxybutyrate	-25%		0.30	0.00	1.20
	a-Ketoglutarate	13%		25.48	2.60	38.70
H	a-Ketoisocaproate	27%		0.30	0.00	0.39
L	a-Ketoisovalerate	-25%		0.15	0.00	0.60
H	**Benzoate**	**99%**		**3.73**	0.00	2.50
	cis-Aconitate	-21%		47.12	30.00	89.00
	Citrate	-10%		563.70	175.00	1157.00
H	**D-Arabinitol**	**103%**		**49.00**	0.00	32.00
L	D-Lactate	-43%		0.40	0.00	5.50
	Ethylmalonate	-3%		2.58	0.00	5.50
H	Formiminoglutamic Acid	47%		1.40	0.00	1.45
	Fumarate	-13%		0.26	0.00	0.71
	Glucarate	12%		4.35	0.00	7.00
	Hippurate	-6%		236.14	0.00	542.00
L	Homovanillate	-30%		2.76	1.50	7.70
	Hydroxymethylglutarate	-12%		2.57	0.00	6.80
L	Indican	-49%		0.90	0.00	80.00
H	Isocitrate	27%		79.08	36.00	92.00
	Kynurenate	23%		1.31	0.00	1.80
	Malate	-5%		1.03	0.00	2.30
	Methylmalonate	-19%		0.72	0.00	2.30
	Orotate	3%		0.53	0.00	1.00
	Phenylacetate	17%		0.04	0.00	0.06
H	Phenylpropionate	30%		0.40	0.00	0.50
	p-Hydroxybenzoate	12%		0.74	0.00	1.20
	P-Hydroxyphenylacetate	12%		12.30	0.00	20.00
H	p-Hydroxyphenyllactate	34%		0.59	0.00	0.70
H	Pyroglutamate	28%		47.00	0.00	60.00
	Pyruvate	-2%		1.96	0.00	4.10
	Quinolinate	-19%		3.15	0.00	10.20
	Suberate	6%		1.01	0.00	1.80
L	Succinate	-39%		3.02	1.10	18.30
	Sulfate	-17%		1457.00	690.00	2988.00
L	Tricarballylate	-35%		0.24	0.00	1.60
L	Vanilmandelate	-26%		1.75	1.10	3.80
	Xanthurenate	24%		0.52	0.00	0.70
	Average Imbalance	**37%**	-50% -25% 0% 25% 50%			
	Direction of Imbalance	**Excess**				

0% is the middle of the reference range, which represents balance. +50% = high end of the reference range. -50% = low end of the reference range.

healthy zone 0-25% | early warning zone 25-50% | high risk zone 50-100% | critical zone >100%

Out-of-Range Results (Discussion)

Anna
Female / Age: 58

Foundational Wellness & Hair Elements: January 2011

The following results are out-of-range (as reported by the lab), and should be carefully reviewed. The % Imbalance measures how far each result is from the middle of the lab reference range. It is also a way to compare items that have different reference ranges. The original data from the lab company is shown to the right. Where there are drugs or nutritional supplements that have a known adverse effect for the corresponding test result, it is listed. *see ALERT at bottom of the page.

Iodine (527% imbalance, Test result 9.20 with reference range of 0.25 to 1.80)
High levels of hair iodine should be cross-correlated to thyroid testing. Review dietary habits (excessive iodized salt intake) to assess possible reasons for excessive hair levels.

Calcium/Phosphorus Ratio (-274% imbalance, calculated from other measurements)
Fibromyalgia, excessive intake of phosphorus, inadequate intake of calcium.

CA Cycle Phase 6 (214% imbalance, calculated from other measurements)
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 Entry (190% imbalance, calculated from other measurements)
A high result for the marker respresenting the entry into the citric acid may indicate carbohydrate metabolism impairment especially if pyruvate and/or lactate are elevated. Possibilities causing this particular blockade include mercury, arsenic or petrochemical exposure.

Oxidative Damage (163% imbalance, calculated from other measurements)
A high reading of this ratio is indicative of excessive oxidative damage and the use of anti-oxidants is highly recommended.

Ultra-Sensitive TSH (-128% imbalance, Test result 0.00 with reference range of 1.10 to 2.50)
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 effect:
Anabolic Steroids, Corticosteroids

2-Methylhippurate (118% imbalance, Test result 0.08 with reference range of 0.00 to 0.05)
This 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. Also, the ingestion of alcohol is contraindicated as it will inhibit the persons ability to detoxify these solvents.

Vanadium (103% imbalance, Test result 0.09 with reference range of 0.02 to 0.06)
Typically, excessive levels of vanadium may be due to environmental exposure, particullarly inhalation. HIgh levels of vanadium in the hair may mean excessive supplementation, over consumption of shellfish, and/or exposure due to nearby industrial sources such as mineral ore processing, phosphate fertilizers, oil and coal combustion, production of steal and chemicals used in the fixation of dyes and print. Confirmation of high hair can be done through red blood cell assay or urine challenges.

D-Arabinitol (103% imbalance, Test result 49.00 with reference range of 0.00 to 32.00)
D-Arabinitol is a sensitive marker for the presence of yeast in the small intestine. An elevated reading is indicative of an ongoing yeast infection.

Benzoate (99% imbalance, Test result 3.73 with reference range of 0.00 to 2.50)
An elevated reading of this organic acid may mean an overgrowth of certain intestinal microbiota, ingestions of excessive benzoic acid in the diet (preserved foods, pickles, lunch meats, cranberries), or poor Phase II detoxification capabilities as the conjugation of benzoate with glycine is very efficient. The presence of this compound may be due to the action of the bacteria on phenylalanine. Assessment of amino acid competency may be helpful especially plasma glycine.

***ALERT:** Some drugs are very dangerous to stop taking abruptly. If you are currently taking a medication that appears on this page, consult your medical professional before making any changes.

0% is the middle of the reference range, which represents balance. +50% = high end of the reference range. -50% = low end of the reference range.

healthy zone 0-25% | early warning zone 25-50% | high risk zone 50-100% | critical zone >100%

The following results are out-of-range (as reported by the lab), and should be carefully reviewed. The % Imbalance measures how far each result is from the middle of the lab reference range. It is also a way to compare items that have different reference ranges. The original data from the lab company is shown to the right. Where there are drugs or nutritional supplements that have a known adverse effect for the corresponding test result, it is listed. *see ALERT at bottom of the page.

LDL (84% imbalance, Test result 153.00 with reference range of 62.00 to 130.00)
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 effect:
Clofibrate

Foods which may have an adverse effect:
Coconut Milk

Germanium (-80% imbalance, Test result 0.03 with reference range of 0.03 to 0.04)
There is no correlation between low germanium in the hair and tissue levels. Hair germanium is only measured for research purposes.

Lithium (-73% imbalance, Test result 0.00 with reference range of 0.01 to 0.02)
While no clinical significance to low hair lithium has been found, some small amount of supplementation may be beneficial. Blood lithium should be used as a confirmation.

CA Cycle Phase 1 (70% imbalance, calculated from other measurements)
This is the first phase of the citric acid cycle moving from Citrate to cis-Aconitate. A high reading may indicate a disruption in the efficiency of energy production. It can also be due to a problem clearing ammonia due to an arginase enzyme deficiency.

Calcium (-68% imbalance, Test result 135.00 with reference range of 300.00 to 1200.00)
Calcium is an important mineral used by the body to build bone, control the cardiac muscle as well as cellular membrane health and blood clotting. Review blood and RBC levels of this essential mineral to correctly assess its level in the body.

Iron (-64% imbalance, Test result 5.70 with reference range of 7.00 to 16.00)
Iron is necessary for the formation of some proteins, hemoglobin, myoglobin, and cytochrome. Also, it is necessary for oxygen transport, cellular respiration and peroxide deactivation. Low levels are seen in many anemias, copper deficiencies, low vitamin C intake, liver disease, chronic infections, high calcium intake, and women with heavy menstrual flows. Low hair has no correlation to tissue levels of this essential mineral.

Cobalt (-59% imbalance, Test result 0.00 with reference range of 0.00 to 0.04)
There is no clinical significance of low hair cobalt levels.

Cystine (56% imbalance, Test result 29.60 with reference range of 1.00 to 28.00)
Cystine is the combination of two cysteine molecules combine. A sulfur amino acid, it is critical in the ability to detoxify the body. A high reading may indicate excessive supplementation with methionine, cystine, or N-acetylcysteine. Decreased renal clearance may also cause a high result. Excessive levels can be neurotoxic and adversely affect mental function.

Ca/Mg (-53% imbalance, Test result 3.14 with reference range of 4.00 to 30.00)
A depression of this ratio would suggest a calcium deficiency or an excess of magnesium supplementation. An RBC mineral/toxin test may be necessary to confirm these results.

CA/P (-52% imbalance, Test result 0.78 with reference range of 1.00 to 12.00)

The following results are out-of-range (as reported by the lab), and should be carefully reviewed. The % Imbalance measures how far each result is from the middle of the lab reference range. It is also a way to compare items that have different reference ranges. The original data from the lab company is shown to the right. Where there are drugs or nutritional supplements that have a known adverse effect for the corresponding test result, it is listed. *see ALERT at bottom of the page.

Manganese (-52% imbalance, Test result 0.07 with reference range of 0.08 to 0.60)

Manganese is a trace mineral involved in a myriad of enzymatic reactions. Deficiencies can lead to poor glucose tolerance, fatty acid synthesis, seizures and impaired energy production. Hair manganese correlates well with body tissue levels. Red blood cell elements analysis is the proper method of confirming low manganese.

Molybdenum (-50% imbalance, Test result 0.02 with reference range of 0.02 to 0.05)

Found in very small quantities, molybdenum is important in the pathway that converts purines into uric acid, alcohol detoxification, and sulfur detoxification. It is found primarily in whole grains and legumes. Low hair molybdenum is usually correlated to body levels. One sign of Mo deficiency is low uric acid in the blood. Copper and tungsten have been implicated in low molybdenum levels.

Recommended Further Testing

Anna
Female / Age: 58

Foundational Wellness & Hair Elements: January 2011

Based on the results of your analysis, the following areas may deserve further investigation. Please consult your medical professional.

Consider ordering Free-T3, Free-T4, Total T4, T3-Uptake

Rationale: Ultra-Sensitive TSH is out of range low (-50%)

Consider ordering creatinine clearance test

Rationale: Panel Biochemical Ratios Imbalance Deviation is high (50%)

Consider ordering PTH profile

Rationale: Panel Thyroid Imbalance Deviation is high (50%)

Consider ordering urine organic acid test

Rationale: Panel Biochemical Ratios Imbalance Deviation is high (50%)

Results Missing From Test

A more comprehensive analysis could have been generated if the following results were provided:

Lactate	b-Hydroxybutyrate	b-Hydroxyisovalerate	a-Keto-b-methylvalerate

Panel Results Out of Balance

Panels take the individual lab measurements and combine them into useful categories to help you better understand your health status. This page summarizes which panels are most out of balance, both in excess and deficiency. All panels that have an average % Imbalance greater than 25% are shown. The % Imbalance measures how far each result is from the middle of the lab reference range. It is also a way to compare items that have a different reference ranges. *See page 1 for a full explanation of the imbalance ranges.

Panel Name	% Imbalance	
Biochemical Ratios	77%	Deficiency
Nutrient Elements	73%	Excess
CAC Cycle Ratios	73%	Excess
Thyroid	72%	Deficiency
Other Elements	49%	Deficiency
Lipid	41%	Excess
Intestinal Dysbiosis	40%	Excess
Liver Detox Indicators	34%	Excess
Common Toxins	32%	Deficiency
Ratios	29%	Deficiency
Cardiac Marker	29%	Excess
Inflammatory Process	28%	Excess
B-Complex Markers	28%	Excess
Gastrointest. Function	28%	Excess
Detoxification Markers	26%	Deficiency
BCAA Catabolism	26%	Excess
Hematology	25%	Excess

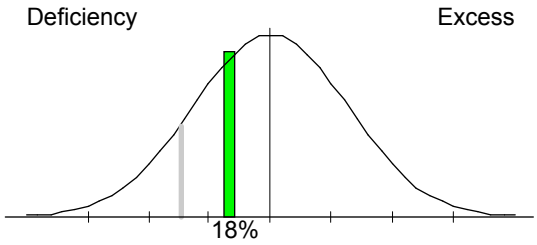
Full Panel Discussion and Progress Report

Panels take the individual lab measurements and combine them into useful categories to help you better understand your health status. This section explains each of the panels from the lab data provided. The current overall status for each panel is shown on the bell curve by the colored bar with the % Imbalance result. If you have measured this panel data in the past, the previous overall status is shown as the narrow grey column for comparison. The % Imbalance measures how far each result is from the middle of the lab reference range. It is also a way to compare items that have different reference ranges. *See page 1 for a full explanation of the imbalance ranges.

Ammonia/Energy

Panel components: Arginine, Threonine, Glycine[L], Serine, a-Aminoadipic Acid[L], Asparagine, Aspartic Acid[L], Citrulline, Glutamic Acid[L], Glutamine, Ornithine, a-Amino-N-Butyric Acid, Alanine, b-Alanine.

Ammonia influences a cell's ability to create energy. This panel shows your body's ability to rid excess ammonia buildup and maintain a healthy energy cycle. This profile shows a percent imbalance below 25%, so no abnormalities were found.



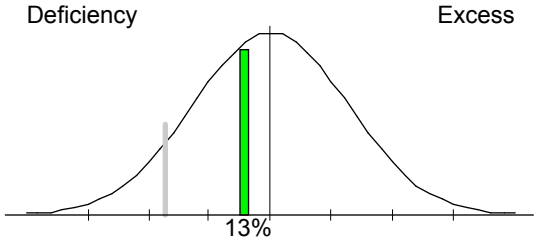
Progress Summary	4/29/2009		**1/18/2011**		*Deterioration* / *Improvement*
Arginine	-28%	L	3%		
Threonine	-64%	L	-15%		
Glycine	-74%	L	-37%	L	
Serine	-68%	L	-21%		
a-Aminoadipic Acid	-7%		-25%	L	
Asparagine	-60%	L	-14%		
Aspartic Acid	-47%	L	-41%	L	
Citrulline	-23%		-17%		
Glutamic Acid	-25%	L	-38%	L	
Glutamine	-57%	L	-1%		
Ornithine	-32%	L	-1%		
a-Amino-N-Butyric Acid	-6%		9%		
Alanine	-19%		19%		
b-Alanine	-14%				
Panel % Imbalance	37%		18%		-50% -25% 0% 25% 50%

Panels take the individual lab measurements and combine them into useful categories to help you better understand your health status. This section explains each of the panels from the lab data provided. The current overall status for each panel is shown on the bell curve by the colored bar with the % Imbalance result. If you have measured this panel data in the past, the previous overall status is shown as the narrow grey column for comparison. The % Imbalance measures how far each result is from the middle of the lab reference range. It is also a way to compare items that have different reference ranges. *See page 1 for a full explanation of the imbalance ranges.

CNS Metabolism

Panel components: Arginine, Tryptophan, GABA, Glycine[L], Serine, Taurine, Aspartic Acid[L], Glutamine, Ethanolamine, Phosphoethanolamine, Phosphoserine.

Amino acids are the basic building blocks of all the cells in our body. Amino acid metabolism is important for proper functioning of the nervous system. This profile shows a percent imbalance below 25%, so no abnormalities were found.



Progress Summary	4/29/2009		**1/18/2011**		*Deterioration* / *Improvement*
Arginine	-28%	L	3%		
Tryptophan	67%	H	10%		
GABA	0%		-20%		
Glycine	-74%	L	-37%	L	
Serine	-68%	L	-21%		
Taurine	-33%	L	1%		
Aspartic Acid	-47%	L	-41%	L	
Glutamine	-57%	L	-1%		
Ethanolamine	5%		8%		
Phosphoethanolamine	-33%	L	1%		
Phosphoserine	-67%	L	0%		
Panel % Imbalance	44%		13%		-50% -25% 0% 25% 50%

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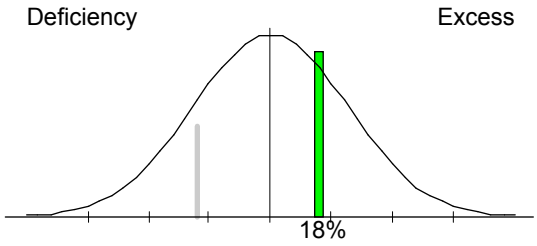
Connective Tissue

Panel components: Leucine, Methionine, Valine, Cystine[H], Hydroxylysine, Hydroxyproline, 3-Methylhistidine[H], Proline.

This panel shows whether there's an adequate supply and metabolism of amino acids necessary to produce healthy connective tissue and collagen. Necessary for healthy bone, joints, hair, skin, and cartilage. This profile shows a percent imbalance below 25%, so no abnormalities were found.

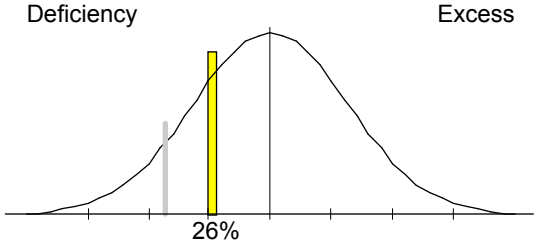


Progress Summary	4/29/2009		**1/18/2011**	*Deterioration* / *Improvement*
Leucine	-26%	L	-10%	
Methionine	-23%		-21%	
Valine	-33%	L	-9%	
Cystine	26%	H	**56% H**	
Hydroxylysine			10%	
Hydroxyproline	57%	H	0%	
3-Methylhistidine	19%		27% H	
Proline	-31%	L	-11%	
Panel % Imbalance	31%		18%	-50% -25% 0% 25% 50%

Detoxification Markers

Panel components: Methionine, Cystine[H], Taurine, Glutamine, Glycine[L], Aspartic Acid[L].

This panel reviews amino acids critical for proper detoxification. This includes detoxing medications, environmental toxins, and natural metabolic toxins. This profile may be indiciative of an inability to properly detoxify. Personalized supplementation is suggested.



Progress Summary	4/29/2009		**1/18/2011**	*Deterioration* / *Improvement*
Methionine	-23%		-21%	
Cystine	26%	H	**56% H**	
Taurine	-33%	L	1%	
Glutamine	-57%	L	-1%	
Glycine	-74%	L	-37% L	
Aspartic Acid	-47%	L	-41% L	
Panel % Imbalance	43%		26%	-50% -25% 0% 25% 50%

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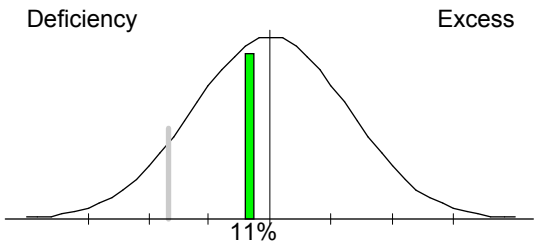
Essential Amino Acid

Panel components: Arginine, Histidine, Isoleucine, Leucine, Lysine, Methionine, Phenylalanine, Threonine, Tryptophan, Valine.

This panel reviews the essential amino acids the body can't produce and must get from the diet. These amino acids are necessary for all body functions. This profile shows a percent imbalance below 25%, so no abnormalities were found.



Progress Summary	4/29/2009		**1/18/2011**	*Deterioration* *Improvement*
Arginine	-28%	L	3%	
Histidine	-56%	L	-8%	
Isoleucine	-44%	L	-21%	
Leucine	-26%	L	-10%	
Lysine	-41%	L	5%	
Methionine	-23%		-21%	
Phenylalanine	-40%	L	-5%	
Threonine	-64%	L	-15%	
Tryptophan	67%	H	10%	
Valine	-33%	L	-9%	
Panel % Imbalance	42%		11%	-50% -25% 0% 25% 50%

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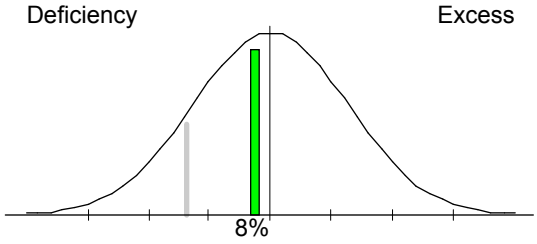
Fat Metabolism

Panel components: Arginine, Isoleucine, Leucine, Valine, Taurine, Glutamine, Sarcosine.

This panel shows your balance of amino acids critical to proper fat metabolism. Fat metabolism is important in many body functions. Improper metabolism can cause problems like hormonal issues and nerve disorders. This profile shows a percent imbalance below 25%, so no abnormalities were found.

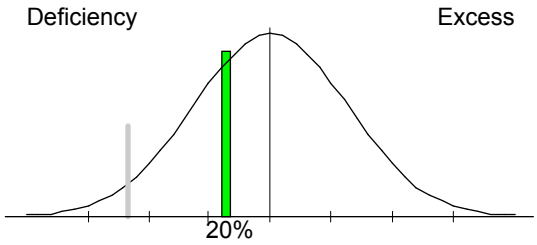


Progress Summary	4/29/2009		**1/18/2011**	*Deterioration* / *Improvement*
Arginine	-28%	L	3%	
Isoleucine	-44%	L	-21%	
Leucine	-26%	L	-10%	
Valine	-33%	L	-9%	
Taurine	-33%	L	1%	
Glutamine	-57%	L	-1%	
Sarcosine	24%		-12%	
Panel % Imbalance	35%		8%	-50% -25% 0% 25% 50%

Gluconeogen

Panel components: Threonine, Tryptophan, Glycine[L], Serine, Alanine.

This panel shows whether you have the proper amino acids in balance to control blood sugar levels. This profile shows a percent imbalance below 25%, so no abnormalities were found.



Progress Summary	4/29/2009		**1/18/2011**	*Deterioration* / *Improvement*
Threonine	-64%	L	-15%	
Tryptophan	67%	H	10%	
Glycine	-74%	L	-37% L	
Serine	-68%	L	-21%	
Alanine	-19%		19%	
Panel % Imbalance	59%		20%	-50% -25% 0% 25% 50%

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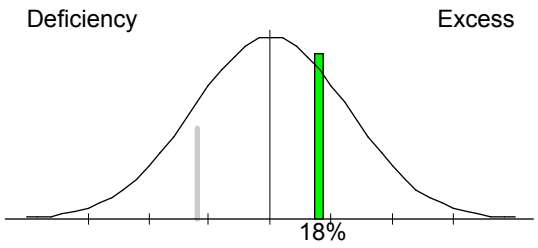
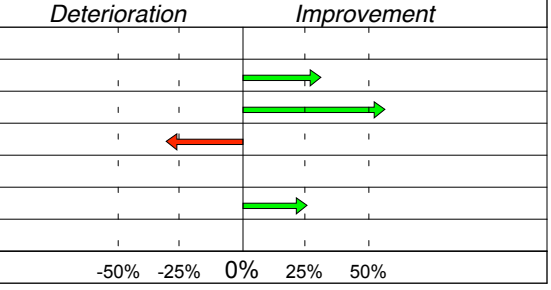
Hepatic Metabolism

Panel components: Methionine, Taurine, Glutamine, Cystine[H], Cystathionine, Homocystine, Alanine.

This panel shows whether you have adequate stores of the listed amino acids to optimize liver function. This is important because your liver is responsible for cleaning your blood of toxins. This profile shows a percent imbalance below 25%, so no abnormalities were found.



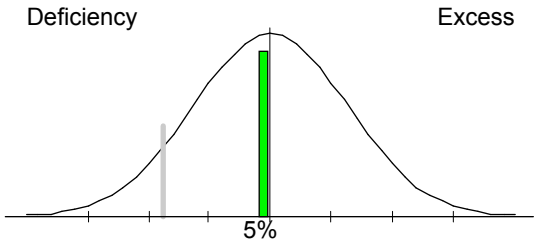
Progress Summary	4/29/2009		**1/18/2011**
Methionine	-23%		-21%
Taurine	-33%	L	1%
Glutamine	-57%	L	-1%
Cystine	26%	H	**56% H**
Cystathionine	-20%		
Homocystine	-36%	L	10%
Alanine	-19%		19%
Panel % Imbalance	30%		18%



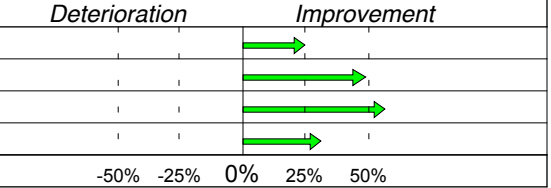
Immune Metabolites

Panel components: Arginine, Threonine, Glutamine, Ornithine.

This panel shows whether you have adequate amounts of the listed amino acids to properly fight off viral or bacterial infections. This profile shows a percent imbalance below 25%, so no abnormalities were found.



Progress Summary	4/29/2009		**1/18/2011**
Arginine	-28%	L	3%
Threonine	-64%	L	-15%
Glutamine	-57%	L	-1%
Ornithine	-32%	L	-1%
Panel % Imbalance	45%		5%



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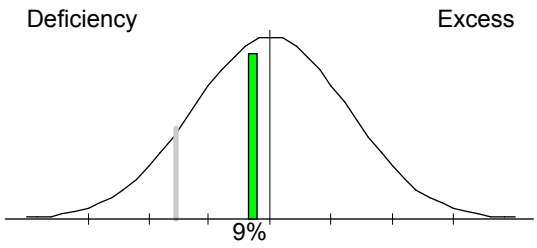
Magnesium Dependents

Panel components: Citrulline, Ethanolamine, Phosphoethanolamine, Phosphoserine, Serine, Methionine sulfoxide.

This panel shows whether you have adequate amounts of magnesium for proper amino acid function. Amino acids are extremely dependent on magnesium to function properly. This profile shows a percent imbalance below 25%, so no abnormalities were found.

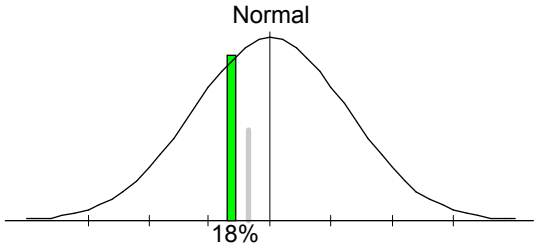


Progress Summary	4/29/2009		**1/18/2011**	*Deterioration* — *Improvement*
Citrulline	-23%		-17%	
Ethanolamine	5%		8%	
Phosphoethanolamine	-33%	L	1%	
Phosphoserine	-67%	L	0%	
Serine	-68%	L	-21%	
Methionine sulfoxide	39%	H		
Panel % Imbalance	39%		9%	-50% -25% 0% 25% 50%

Muscle Metabolites

Panel components: Anserine, Carnosine, 1-Methylhistidine[L], 3-Methylhistidine[H].

Amino acids are the basic building blocks critical in building muscle tissue. This profile shows a percent imbalance below 25%, so no abnormalities were found.



Progress Summary	4/29/2009		**1/18/2011**	*Deterioration* — *Improvement*
Anserine	-9%		6%	
Carnosine	-6%		-12%	
1-Methylhistidine	-9%		-27%	L
3-Methylhistidine	19%		27%	H
Panel % Imbalance	11%		18%	-50% -25% 0% 25% 50%

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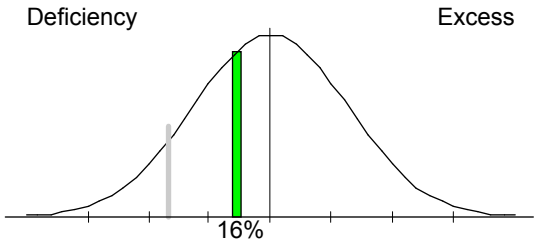
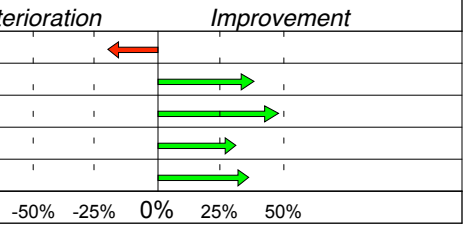
Neuroendocrine Metab

Panel components: GABA, Glycine[L], Serine, Taurine, Tyrosine.

This panel shows whether you have enough of the listed amino acids necessary for the proper functioning of your endocrine system. The endocrine system comprises the control organs of the body such as: thymus, pancreas, and thyroid. This profile shows a percent imbalance below 25%, so no abnormalities were found.



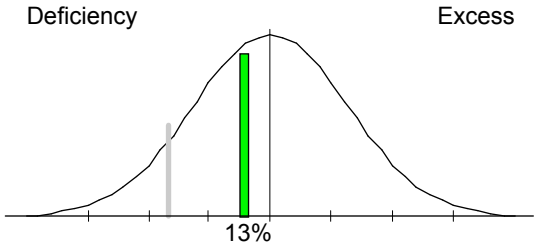
Progress Summary	4/29/2009		**1/18/2011**	
GABA	0%		-20%	
Glycine	-74%	L	-37%	L
Serine	-68%	L	-21%	
Taurine	-33%	L	1%	
Tyrosine	-37%	L	0%	
Panel % Imbalance	42%		16%	



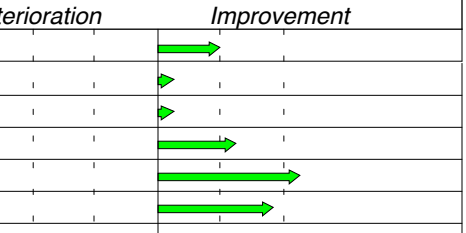
Urea Cycle Metabolites

Panel components: Arginine, Aspartic Acid[L], Citrulline, Ornithine, Glutamine, Asparagine, Urea.

This panel shows your supply of the amino acids related to the urea cycle. This metabolic process helps you remove excess ammonia from your system. This profile shows a percent imbalance below 25%, so no abnormalities were found.



Progress Summary	4/29/2009		**1/18/2011**	
Arginine	-28%	L	3%	
Aspartic Acid	-47%	L	-41%	L
Citrulline	-23%		-17%	
Ornithine	-32%	L	-1%	
Glutamine	-57%	L	-1%	
Asparagine	-60%	L	-14%	
Urea	-48%	L		
Panel % Imbalance	42%		13%	



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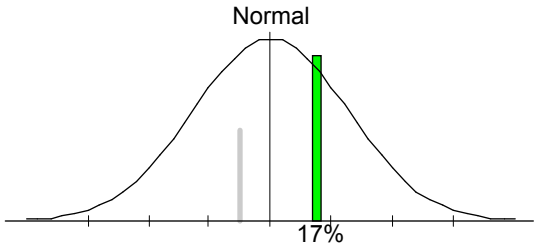
Adrenal Function

Panel components: Cholesterol[H], Eosinophils, Eosinophil Count, Potassium, Sodium.

This panel assesses your production of adrenaline. Adrenaline affects your daily function, such as your ability to handle stress. This profile shows a percent imbalance below 25%, so no abnormalities were found.

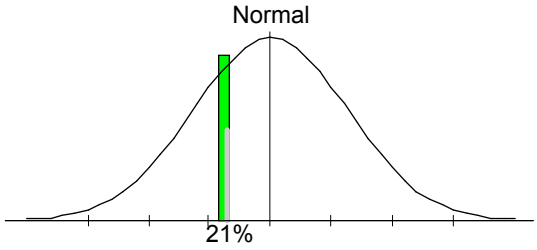


Progress Summary	4/29/2009		**1/18/2011**		*Deterioration* — *Improvement*
Cholesterol	24%		28%	H	
Eosinophils	-15%		21%		
Eosinophil Count	-20%		15%		
Potassium	0%		-9%		
Sodium	-5%		-10%		
Panel % Imbalance	13%		17%		-50% -25% 0% 25% 50%

Allergy

Panel components: Eosinophils, Globulin, Lymphocytes, Monocytes[H], W.B.C.[L].

This panel assesses your response to allergens from common sources such as foods, pets or pollens. This profile shows a percent imbalance below 25%, so no abnormalities were found.



Progress Summary	4/29/2009		**1/18/2011**		*Deterioration* — *Improvement*
Eosinophils	-15%		21%		
Globulin	-9%		-10%		
Lymphocytes	-32%	L	-13%		
Monocytes	12%		28%	H	
W.B.C.	-23%		-32%	L	
Panel % Imbalance	18%		21%		-50% -25% 0% 25% 50%

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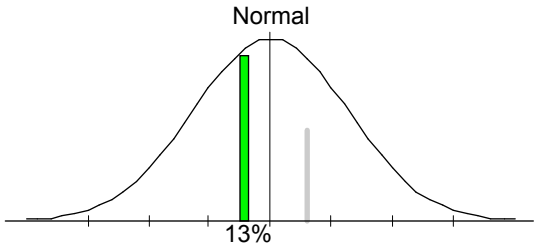
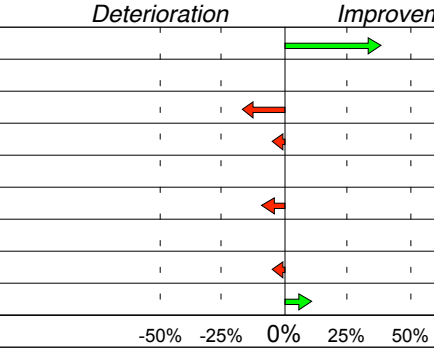
Athletic Potential

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

This panel assesses your athletic potential and your ability to recover from injury. Maintaining a normal range helps optimize performance. Athletes require more nutrients because they deplete their supplies faster. This profile shows a percent imbalance below 25%, so no abnormalities were found.



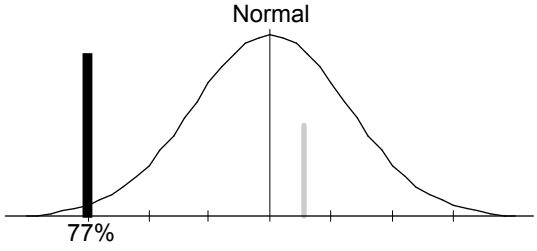
Progress Summary	4/29/2009		**1/18/2011**
B.U.N./Creatinine Ratio	49%	H	11%
Cholesterol	24%		28% H
CO2	0%		-17%
Creatinine	4%		-9%
LDH	-12%		
Potassium	0%		-9%
Protein, Total	7%		-6%
Sodium	-5%		-10%
HDL-Cholesterol	-25%		-14%
Panel % Imbalance	14%		13%



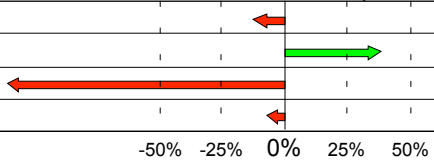
Biochemical Ratios

Panel components: A/G Ratio, B.U.N./Creatinine Ratio, Calcium/Phosphorus Ratio[L], Sodium/Potassium Ratio, Protein/Globulin Ratio, Chol/HDL Ratio.

Ratios indicate your balance of chemistry. It's the ratios between your test results - not just how much you have of something - that indicate balance. This profile may indicate significant imbalances in you chemistry. This panel provides a good tracking mechanism for showing improvements in your biochemical status. Review your Supplement List Explanation.



Progress Summary	4/29/2009		**1/18/2011**
A/G Ratio	0%		-12%
B.U.N./Creatinine Ratio	49%	H	11%
Calcium/Phosphorus Ratio	0%		**-274% L**
Sodium/Potassium Ratio	-2%		9%
Panel % Imbalance	13%		77%



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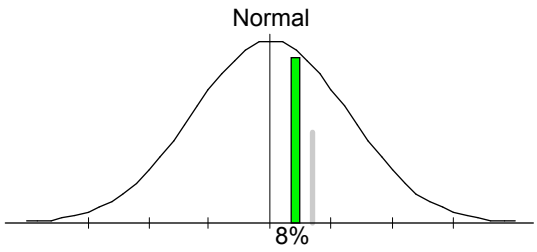
Bone/Joint

Panel components: Albumin, Alkaline Phosphatase, Calcium, Neutrophils, Phosphorus, Protein, Total, Uric Acid.

This panel helps assess bone and joint health. These markers show your body's ability to create healthy bones and joints. This profile shows a percent imbalance below 25%, so no abnormalities were found.



Progress Summary	4/29/2009		**1/18/2011**	*Deterioration* / *Improvement*
Albumin	10%		19%	
Alkaline Phosphatase	10%		-2%	
Calcium	25%	H	12%	
Neutrophils	21%		0%	
Phosphorus	0%			
Protein, Total	7%		-6%	
Uric Acid	39%	H		
Panel % Imbalance	16%		8%	-50% -25% 0% 25% 50%

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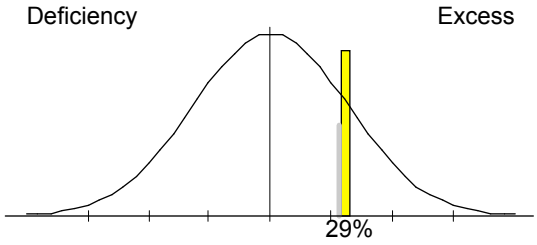
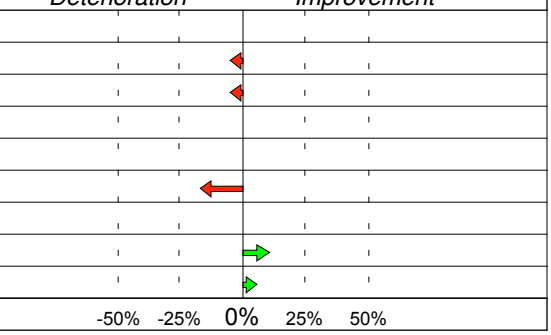
Cardiac Marker

Panel components: Cholesterol[H], GGT, Iron, Total, LDH, sGOT, Triglycerides[H], Uric Acid, VLDL, HDL-Cholesterol, LDL[H], Chol/HDL Ratio, Ferritin.

This panel is helpful in assessing cardiovascular disease risk. Maintaining a normal range may reduce your risk of cardiovascular disease (CVD). The profile may indicate you are at greater risk for CVD than the general population. A review of dietary, environmental and personal habits should be done and appropriate lifestyle changes made. If both triglycerides and cholesterol are elevated, a regime of exercise and dietary changes are more likely to exhibit benefits. Also review Supplement Explanation List.cholesterol are elevated, a regime of exercise and dietary changes are more likely to exhibit benefits.



Progress Summary	4/29/2009		**1/18/2011**	
Cholesterol	24%		28%	H
GGT	-13%		18%	
Iron, Total	12%		17%	
LDH	-12%			
sGOT	6%		-3%	
Triglycerides	21%		38%	H
Uric Acid	39%	H		
HDL-Cholesterol	-25%		-14%	
LDL	90%	H	**84%**	**H**
Panel % Imbalance	27%		29%	



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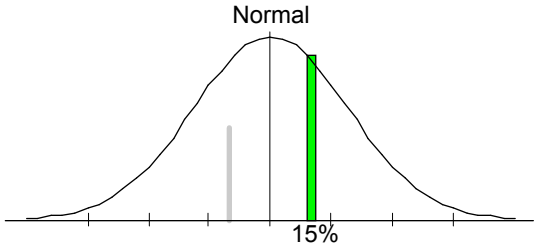
Cellular Distortions

Panel components: Alkaline Phosphatase, Anion Gap, GGT, Iron, Total, LDH, Neutrophils, W.B.C.[L], Ferritin.

This panel may be helpful in determining your body's ability to properly produce healthy cells. This profile shows a percent imbalance below 25%, so no abnormalities were found.

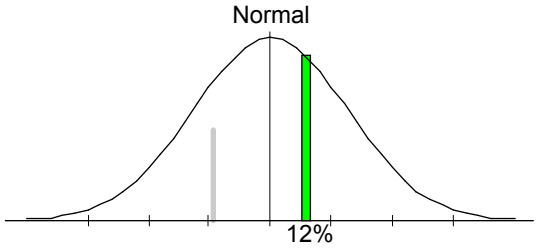


Progress Summary	4/29/2009		**1/18/2011**	*Deterioration* ... *Improvement*
Alkaline Phosphatase	10%		-2%	
Anion Gap	-30%	L	22%	
GGT	-13%		18%	
Iron, Total	12%		17%	
LDH	-12%			
Neutrophils	21%		0%	
W.B.C.	-23%		-32%	L
Panel % Imbalance	17%		15%	-50% -25% 0% 25% 50%

Differential

Panel components: Basophils, Eosinophils, Lymphocytes, Monocytes[H], Neutrophils.

This panel helps assess immune system health. It shows the percentage of specific white blood cells needed for proper immune response. This profile shows a percent imbalance below 25%, so no abnormalities were found.



Progress Summary	4/29/2009		**1/18/2011**	*Deterioration* ... *Improvement*
Basophils	-40%	L	0%	
Eosinophils	-15%		21%	
Lymphocytes	-32%	L	-13%	
Monocytes	12%		28%	H
Neutrophils	21%		0%	
Panel % Imbalance	24%		12%	-50% -25% 0% 25% 50%

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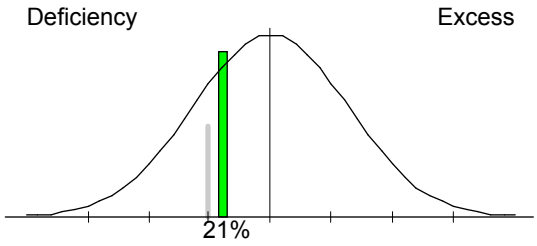
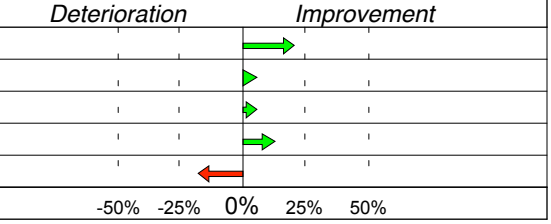
Differential Count

Panel components: Basophil Count, Eosinophil Count, Lymphocyte Count[L], Monocyte Count, Neutrophil Count[L].

This panel helps assess immune system health. It shows how many specific white blood cells your body has for proper immune response. This profile shows a percent imbalance below 25%, so no abnormalities were found.



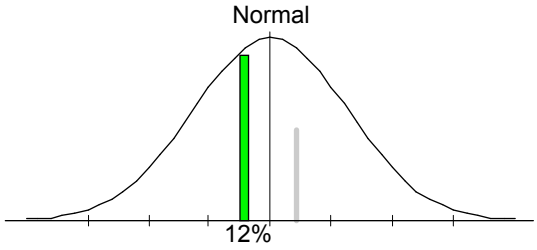
Progress Summary	4/29/2009		1/18/2011	
Basophil Count	-44%	L	-24%	
Eosinophil Count	-20%		15%	
Lymphocyte Count	-38%	L	-33%	L
Monocyte Count	-15%		2%	
Neutrophil Count	-12%		-31%	L
Panel % Imbalance	26%		21%	



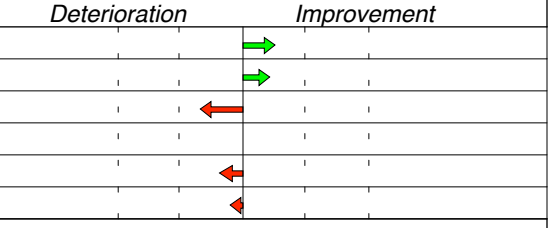
Electrolyte

Panel components: Calcium, Chloride, CO2, Phosphorus, Potassium, Sodium.

This panel represents the electrolyte balance in blood. Balance is critical in achieving optimal health. This profile shows a percent imbalance below 25%, so no abnormalities were found.



Progress Summary	4/29/2009		1/18/2011	
Calcium	25%	H	12%	
Chloride	25%	H	14%	
CO2	0%		-17%	
Phosphorus	0%			
Potassium	0%		-9%	
Sodium	-5%		-10%	
Panel % Imbalance	9%		12%	



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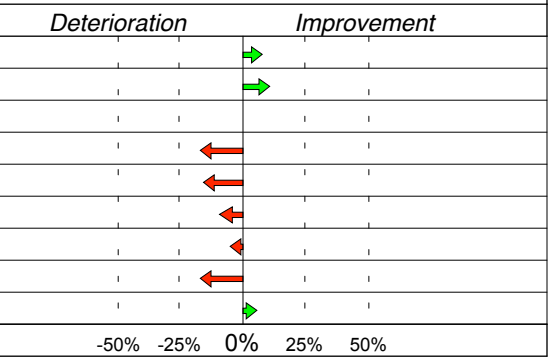
Gastrointest. Function

Panel components: Anion Gap, Chloride, Cholesterol[H], CO2, Monocytes[H], Potassium, Sodium, Triglycerides[H], LDL[H].

This panel helps assess gastrointestinal health. Keeping the elements listed in a normal range may improve digestion and the metabolism of proteins, fats and carbohydrates. This profile suggests the need for further evaluation of gastrointestinal integrity, digestion and absorption. Check for dysbiosis (bacterial overgrowth in the gut), food allergies or "leaky gut" syndrome.

Progress Summary	4/29/2009		**1/18/2011**	
Anion Gap	-30%	L	22%	
Chloride	25%	H	14%	
Cholesterol	24%		28%	H
CO2	0%		-17%	
Monocytes	12%		28%	H
Potassium	0%		-9%	
Sodium	-5%		-10%	
Triglycerides	21%		38%	H
LDL	90%	H	**84%**	**H**
Panel % Imbalance	23%		28%	



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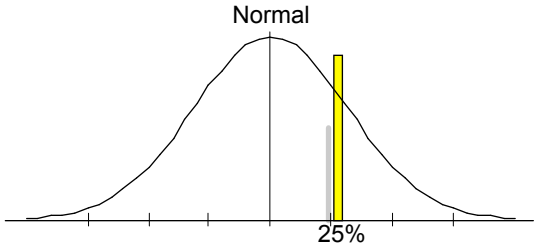
Hematology

Panel components: Hematocrit[H], Hemoglobin[H], MCH, MCHC, MCV, R.B.C.[H], W.B.C.[L].

This panel assesses the production of red blood cells and their function. This profile suggests dehydration, living at high altitude, and genetic abnormalities (this list is not all-inclusive).



Progress Summary	4/29/2009		**1/18/2011**		*Deterioration* ... *Improvement*
Hematocrit	29%	H	49%	H	
Hemoglobin	34%	H	41%	H	
MCH	27%	H	3%		
MCHC	18%		-13%		
MCV	5%		15%		
R.B.C.	20%		26%	H	
W.B.C.	-23%		-32%	L	
Panel % Imbalance	22%		25%		-50% -25% 0% 25% 50%

Anna
Female / Age: 58

Foundational Wellness & Hair Elements: January 2011

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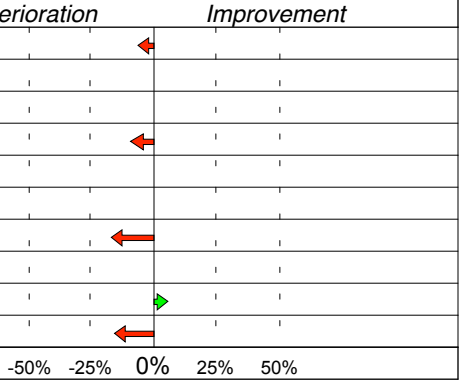
Inflammatory Process

Panel components: Eosinophils, Globulin, LDH, Potassium, sGOT, sGPT[H], Triglycerides[H], Uric Acid, LDL[H], Monocytes[H].

This panel helps assess any inflammatory processes that may be occuring in the body. This profile may show presence of an ongoing inflammatory process. Consider dietary changes such as avoiding saturated and trans fats. And review your Supplement Explanation List. We recommend the LEAP/MRT test to identify the foods and preservatives which may be increasing your inflammation.

Progress Summary	4/29/2009		**1/18/2011**	
Eosinophils	-15%		21%	
Globulin	-9%		-10%	
LDH	-12%			
Potassium	0%		-9%	
sGOT	6%		-3%	
sGPT	35%	H	34%	H
Triglycerides	21%		38%	H
Uric Acid	39%	H		
LDL	90%	H	**84%**	**H**
Monocytes	12%		28%	H
Panel % Imbalance	24%		28%	



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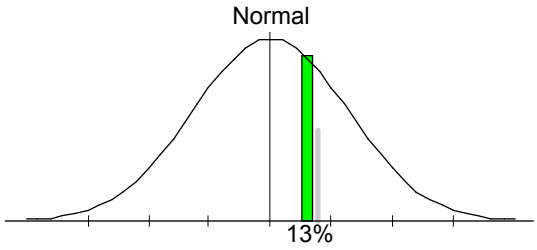
Kidney Function

Panel components: Albumin, B.U.N., B.U.N./Creatinine Ratio, Chloride, CO2, Creatinine, Glucose[H], Potassium, Protein, Total, Sodium.

This panel helps assess kidney function. It is important to keep the elements of this subset in balance to help the body eliminate waste material. This profile shows a percent imbalance below 25%, so no abnormalities were found.

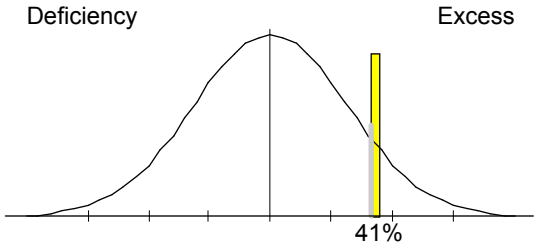


Progress Summary	4/29/2009		**1/18/2011**		*Deterioration* — *Improvement*
Albumin	10%		19%		
B.U.N.	17%		2%		
B.U.N./Creatinine Ratio	49%	H	11%		
Chloride	25%	H	14%		
CO2	0%		-17%		
Creatinine	4%		-9%		
Glucose	62%	H	32%	H	
Potassium	0%		-9%		
Protein, Total	7%		-6%		
Sodium	-5%		-10%		
Panel % Imbalance	18%		13%		-50% -25% 0% 25% 50%

Lipid

Panel components: Cholesterol[H], Triglycerides[H], VLDL, HDL-Cholesterol, LDL[H], Chol/HDL Ratio.

Lipid assessment is important in helping achieve optimal wellness as well as reducing cardiovascular disease risk. The profile suggests you may be at higher risk for coronary heart disease than the general population. Review your diet and avoid trans and saturated fats. Plus refer to your Supplement List Explanation.



Progress Summary	4/29/2009		**1/18/2011**		*Deterioration* — *Improvement*
Cholesterol	24%		28%	H	
Triglycerides	21%		38%	H	
HDL-Cholesterol	-25%		-14%		
LDL	90%	H	**84%**	**H**	
Panel % Imbalance	40%		41%		-50% -25% 0% 25% 50%

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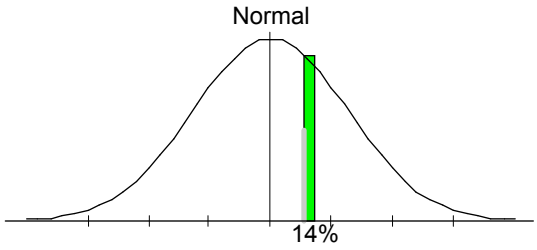
Liver Function

Panel components: Albumin, Alkaline Phosphatase, Bilirubin, Total, Cholesterol[H], GGT, Protein, Total, sGOT, sGPT[H].

Assessing liver function helps determine your body's ability to detoxify environmental toxins, stress hormones, drugs and other chemical toxins. It also shows your ability to process amino acids and other important biological processes. This profile shows a percent imbalance below 25%, so no abnormalities were found.



Progress Summary	4/29/2009		**1/18/2011**	
Albumin	10%		19%	
Alkaline Phosphatase	10%		-2%	
Bilirubin, Total	0%		-5%	
Cholesterol	24%		28%	H
GGT	-13%		18%	
Protein, Total	7%		-6%	
sGOT	6%		-3%	
sGPT	35%	H	34%	H
Panel % Imbalance	13%		14%	

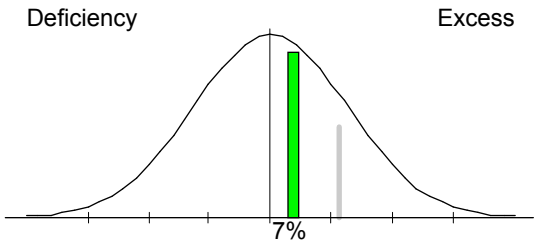
Deterioration *Improvement*

-50% -25% 0% 25% 50%

Nitrogen

Panel components: B.U.N., B.U.N./Creatinine Ratio, Creatinine, Uric Acid.

Nitrogen is a major component of protein. This panel assesses if there's adequate protein in the diet and if the body metabolizes (uses) proteins properly. This profile shows a percent imbalance below 25%, so no abnormalities were found.



Progress Summary	4/29/2009		**1/18/2011**	
B.U.N.	17%		2%	
B.U.N./Creatinine Ratio	49%	H	11%	
Creatinine	4%		-9%	
Uric Acid	39%	H		
Panel % Imbalance	27%		7%	

Deterioration *Improvement*

-50% -25% 0% 25% 50%

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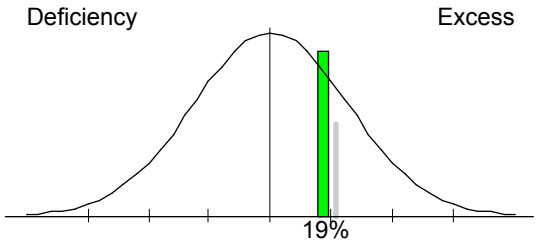
Oxidative Stress

Panel components: Anion Gap, Bilirubin, Total, Chloride, Cholesterol[H], Glucose[H], Iron, Total, Ferritin.

Oxidation is like the rusting of cells. Reducing oxidation is critical for healthy cell function and to slow the aging process. This profile shows a percent imbalance below 25%, so no abnormalities were found.

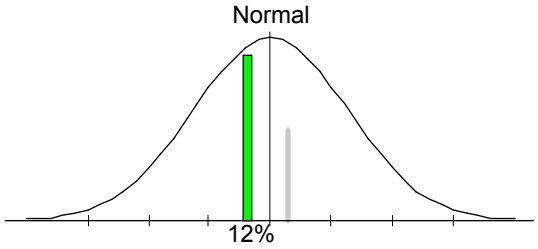


Progress Summary	4/29/2009		**1/18/2011**		*Deterioration* / *Improvement*
Anion Gap	-30%	L	22%		
Bilirubin, Total	0%		-5%		
Chloride	25%	H	14%		
Cholesterol	24%		28%	H	
Glucose	62%	H	32%	H	
Iron, Total	12%		17%		
Panel % Imbalance	25%		19%		-50% -25% 0% 25% 50%

Protein

Panel components: A/G Ratio, Albumin, Globulin, Protein, Total, Protein/Globulin Ratio.

Proteins are the basic building blocks of all cells including: hormones, muscle, neurotransmitters, immune systems responses and more. Assessing their competency is crucial in achieving optimal wellness. This profile shows a percent imbalance below 25%, so no abnormalities were found.



Progress Summary	4/29/2009		**1/18/2011**		*Deterioration* / *Improvement*
A/G Ratio	0%		-12%		
Albumin	10%		19%		
Globulin	-9%		-10%		
Protein, Total	7%		-6%		
Panel % Imbalance	7%		12%		-50% -25% 0% 25% 50%

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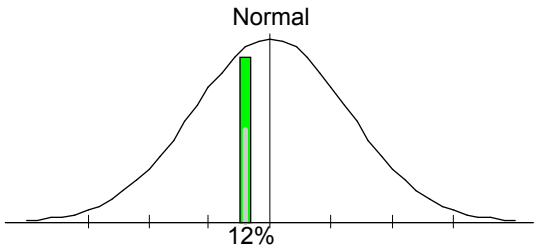
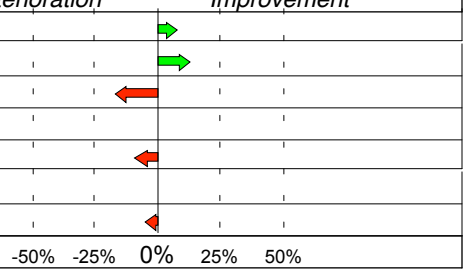
Pulmonary Function

Panel components: Anion Gap, Calcium, CO2, LDH, Potassium, sGOT, Sodium.

This panel helps assess lung and respiratory function. This profile shows a percent imbalance below 25%, so no abnormalities were found.



Progress Summary	4/29/2009		**1/18/2011**
Anion Gap	-30%	L	22%
Calcium	25%	H	12%
CO2	0%		-17%
LDH	-12%		
Potassium	0%		-9%
sGOT	6%		-3%
Sodium	-5%		-10%
Panel % Imbalance	11%		12%



Thyroid

The Thyroid panel normally consists of Free T-3, T-3 Concentration, Thyroxine (T4), T-3 Uptake, Free T4 Index (T7), Ultra-Sensitive TSH, and Free T-4.

However, only test results for Thyroxine (T4) and Ultra-Sensitive TSH were provided for this report. If you are interested in seeing your Thyroid panel results, we recommend you run the following incremental tests: Free T-3, T-3 Concentration, T-3 Uptake, Free T4 Index (T7) and Free T-4.

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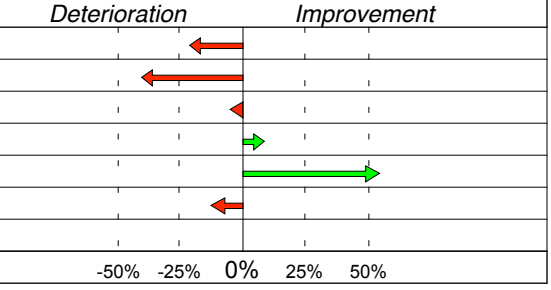
Common Toxins

Panel components: Antimony[L], Arsenic[H], Cadmium[L], Lead[L], Mercury[H], Aluminum[L], Nickel[L].

This panel assesses your heavy metals toxin load. Even a small amount is detrimental to health. This profile shows some toxins are being retained - especially mercury - even though they may not be showing up in the hair. Review Supplement List Explanation.

Progress Summary	2/6/2006		**12/14/2010**	
Antimony	-9%		-30%	L
Arsenic	1%		42%	H
Cadmium	23%		-28%	L
Lead	-39%	L	-30%	L
Mercury	85%	H	31%	H
Aluminum	-15%		-27%	L
Nickel	-38%	L	-37%	L
Panel % Imbalance	30%		32%	



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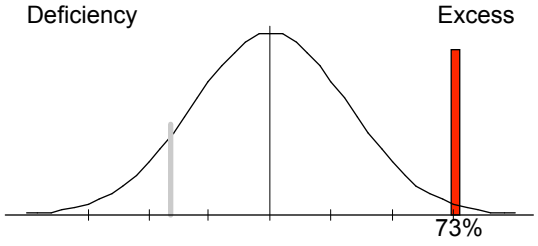
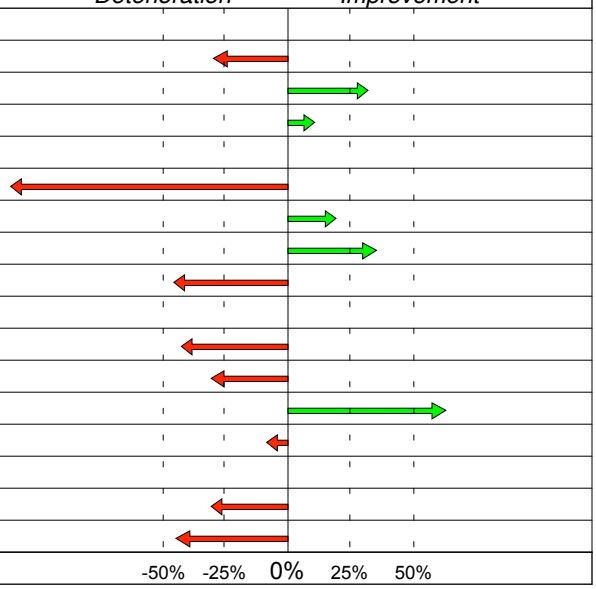
Nutrient Elements

Panel components: Sulfur[H], Strontium[L], Selenium[H], Phosphorus, Lithium[L], Iodine[H], Boron[L], Molybdenum[L], Vanadium[H], Chromium, Manganese[L], Magnesium[L], Zinc, Copper[L], Potassium[L], Sodium[L], Calcium[L].

These are minerals, such as magnesium, necessary for healthy body function. These minerals only come from diet or supplements. This profile may indicate heavy metal toxicity. Consider taking the Whole Blood Elements test for further information.



Progress Summary	2/6/2006		**12/14/2010**	
Sulfur	37%	H	33%	H
Strontium	-19%		-48%	L
Selenium	-82%	L	**50%**	**H**
Phosphorus	-27%	L	-16%	
Lithium	-71%	L	**-73%**	**L**
Iodine	-46%	L	**527%**	**H**
Boron	-46%	L	-27%	L
Molybdenum	-85%	L	**-50%**	**L**
Vanadium	-58%	L	**103%**	**H**
Chromium	-17%		-18%	
Manganese	-10%		**-52%**	**L**
Magnesium	-11%		-41%	L
Zinc	75%	H	13%	
Copper	-26%	L	-35%	L
Potassium	-47%	L	-44%	L
Sodium	-18%		-48%	L
Calcium	-24%		**-68%**	**L**
Panel % Imbalance	41%		73%	



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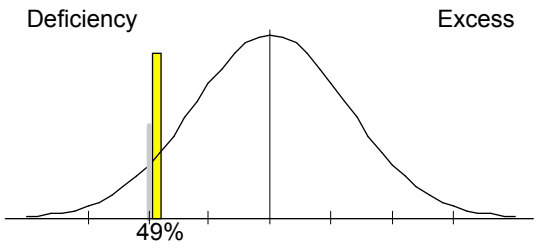
Other Elements

Panel components: Barium[L], Cobalt[L], Iron[L], Germanium[L], Rubidium[L], Titanium, Zirconium[L].

A low reading is not abnormal and does not have any diagnostic meaning.

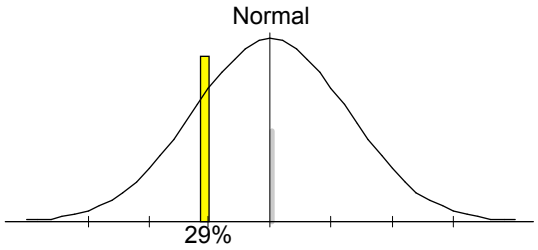


Progress Summary	2/6/2006		**12/14/2010**		*Deterioration* / *Improvement*
Barium	-29%	L	-46%	L	
Cobalt	-36%	L	**-59%**	**L**	
Iron	-75%	L	**-64%**	**L**	
Germanium	-115%	L	**-80%**	**L**	
Rubidium	-40%	L	-35%	L	
Titanium	-1%		16%		
Zirconium	-53%	L	-41%	L	
Panel % Imbalance	50%		49%		-50% -25% 0% 25% 50%

Ratios

Panel components: Zn/Cu, Zn/Cd, Na/K[L], Mg/K, Ca/Mg[L], CA/P[L].

Ratios indicate your balance of chemistry. It's the ratios between your test results - not just how much you have of something - that indicate balance. This profile may indicate significant imbalances in you chemistry. This panel provides a good tracking mechanism for showing improvements in your biochemical status. Review your Supplement List Explanation.



	% Imbalance	*Deficiency* / *Excess*	**Lab Result**	***Reference Range Low***	***High***
Zn/Cu	4%		12.70	4.00	20.00
Zn/Cd	0%		999.00	800.00	1198.00
Na/K	-34%		2.00	0.50	10.00
Ca/Mg	**-53%**		**3.14**	4.00	30.00
CA/P	**-52%**		**0.78**	1.00	12.00
		-50% -25% 0% 25% 50%			

No progress summary can be generated for this panel because no previous lab data was provided.

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Toxic Elements

Panel components: Aluminum[L], Antimony[L], Arsenic[H], Beryllium, Bismuth[L], Cadmium[L], Lead[L], Mercury[H], Platinum, Thallium, Thorium, Uranium[L], Nickel[L], Silver, Tin[L].

This panel assesses your heavy metals toxin load. Even a small amount is detrimental to health. This profile shows a percent imbalance below 25%, so no abnormalities were found.

Progress Summary	2/6/2006		**12/14/2010**		*Deterioration* / *Improvement*
Aluminum	-15%		-27%	L	
Antimony	-9%		-30%	L	
Arsenic	1%		42%	H	
Beryllium	0%		0%		
Bismuth	-30%	L	-50%	L	
Cadmium	23%		-28%	L	
Lead	-39%	L	-30%	L	
Mercury	85%	H	31%	H	
Platinum	10%		10%		
Thallium	-40%	L	0%		
Thorium	-30%	L	0%		
Uranium	-27%	L	-42%	L	
Nickel	-38%	L	-37%	L	
Silver	50%	H	-3%		
Tin	-13%		-37%	L	
Panel % Imbalance	27%		24%		-50% -25% 0% 25% 50%

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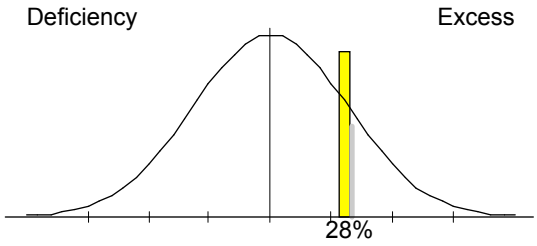
B-Complex Markers

Panel components: b-Hydroxyisovalerate, a-Ketoisovalerate[L], a-Ketoisocaproate[H], a-Keto-b-methylvalerate, Methylmalonate, Formiminoglutamic Acid[H], Xanthurenate.

This panel assesses adequate intake of B-complex vitamins. This profile may indicate a need for certain B-complex vitamins. Review your Supplement List Explanation.



Progress Summary	4/28/2009		**1/19/2011**		*Deterioration* *Improvement*
a-Ketoisovalerate	-25%	L	-25%	L	
a-Ketoisocaproate	-32%	L	27%	H	
Methylmalonate	-14%		-19%		
Formiminoglutamic Acid	47%	H	47%	H	
Xanthurenate	43%	H	24%		
Panel % Imbalance	32%		28%		-50% -25% 0% 25% 50%

BCAA Catabolism

The BCAA Catabolism panel normally consists of a-Ketoisovalerate, a-Ketoisocaproate, and a-Keto-b-methylvalerate.

However, only test results for a-Ketoisovalerate and a-Ketoisocaproate were provided for this report. If you are interested in seeing your BCAA Catabolism panel results, we recommend you run the following incremental tests: a-Keto-b-methylvalerate.

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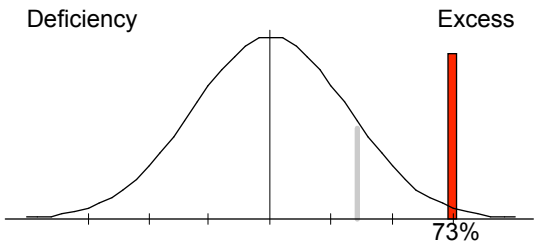
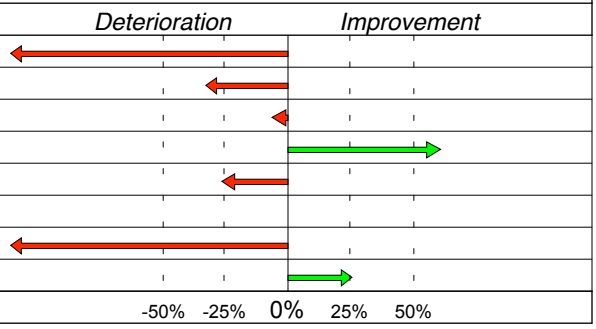
CAC Cycle Ratios

Panel components: CA Cycle Entry[H], CA Cycle Phase 1[H], CA Cycle Phase 2, CA Cycle Phase 3, CA Cycle Phase 4[L], CA Cycle Phase 5[L], CA Cycle Phase 6[H], CA Cycle Return.

This panel reviews cellular energy producing cycles to maintain health and weight. This profile may indicate a heavy toxin load. Consider taking the Environmental Pollutants test.



Progress Summary	4/28/2009		**1/19/2011**
CA Cycle Entry	20%		**190% H**
CA Cycle Phase 1	37%	H	**70% H**
CA Cycle Phase 2	2%		-8%
CA Cycle Phase 3	71%	H	-11%
CA Cycle Phase 4	-21%		-47% L
CA Cycle Phase 5	-28%	L	-27% L
CA Cycle Phase 6	56%	H	**214% H**
CA Cycle Return	-41%	L	-15%
Panel % Imbalance	35%		73%



Carbohydrate Metabolism

The Carbohydrate Metabolism panel normally consists of Lactate, Pyruvate, a-Hydroxybutyrate, and b-Hydroxybutyrate.

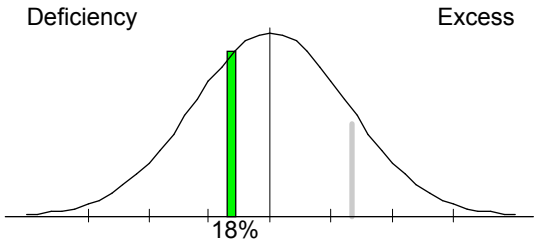
However, only test results for Pyruvate and a-Hydroxybutyrate were provided for this report. If you are interested in seeing your Carbohydrate Metabolism panel results, we recommend you run the following incremental tests: Lactate and b-Hydroxybutyrate.

Panels take the individual lab measurements and combine them into useful categories to help you better understand your health status. This section explains each of the panels from the lab data provided. The current overall status for each panel is shown on the bell curve by the colored bar with the % Imbalance result. If you have measured this panel data in the past, the previous overall status is shown as the narrow grey column for comparison. The % Imbalance measures how far each result is from the middle of the lab reference range. It is also a way to compare items that have different reference ranges. *See page 1 for a full explanation of the imbalance ranges.

Energy Production

Panel components: Citrate, cis-Aconitate, Isocitrate[H], a-Ketoglutarate, Succinate[L], Fumarate, Malate, Hydroxymethylglutarate.

This panel reviews cellular energy producing cycles to maintain health and weight. This profile shows a percent imbalance below 25%, so no abnormalities were found.

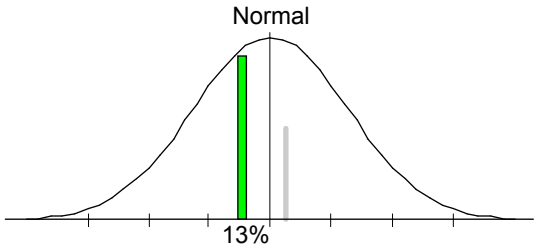


Progress Summary	4/28/2009		**1/19/2011**		*Deterioration* ... *Improvement*
Citrate	-30%	L	-10%		
cis-Aconitate	-28%	L	-21%		
Isocitrate	47%	H	27%	H	
a-Ketoglutarate	-31%	L	13%		
Succinate	6%		-39%	L	
Fumarate	89%	H	-13%		
Malate	18%		-5%		
Hydroxymethylglutarate	-13%		-12%		
Panel % Imbalance	33%		18%		-50% -25% 0% 25% 50%

Fatty Acid Metabolism

Panel components: Adipate[L], Suberate, Ethylmalonate.

This panel assesses how fats are being broken down and utilized by the body. This profile shows a percent imbalance below 25%, so no abnormalities were found.



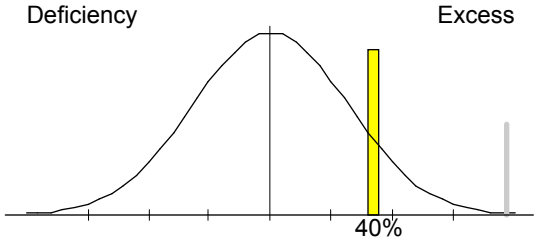
Progress Summary	4/28/2009		**1/19/2011**		*Deterioration* ... *Improvement*
Adipate	-4%		-31%	L	
Suberate	11%		6%		
Ethylmalonate	-1%		-3%		
Panel % Imbalance	5%		13%		-50% -25% 0% 25% 50%

Panels take the individual lab measurements and combine them into useful categories to help you better understand your health status. This section explains each of the panels from the lab data provided. The current overall status for each panel is shown on the bell curve by the colored bar with the % Imbalance result. If you have measured this panel data in the past, the previous overall status is shown as the narrow grey column for comparison. The % Imbalance measures how far each result is from the middle of the lab reference range. It is also a way to compare items that have different reference ranges. *See page 1 for a full explanation of the imbalance ranges.

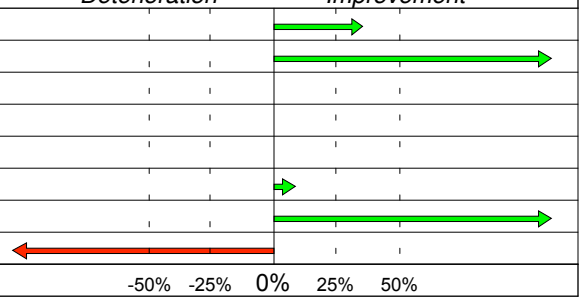
Intestinal Dysbiosis

Panel components: p-Hydroxyphenyllactate[H], Phenylacetate, Phenylpropionate[H], Tricarballylate[L], DHPP, Citramalate, b-Ketoglutarate, Indican[L], p-Hydroxybenzoate, D-Lactate[L], D-Arabinitol[H].

Disbyosis is an overgrowth of bad bacteria in the gut. It is indicative of gut health. This profile suggest you may have overgrowths of bad bacteria in the gut. Review Clostridum panel. Consider running a stool analysis to confirm.



Progress Summary	4/28/2009		**1/19/2011**	
p-Hydroxyphenyllactate	70%	H	34%	H
Phenylacetate	1033%	H	17%	
Phenylpropionate	30%	H	30%	H
Tricarballylate	-35%	L	-35%	L
Indican	-49%	L	-49%	L
p-Hydroxybenzoate	20%		12%	
D-Lactate	395%	H	-43%	L
D-Arabinitol	0%		**103%**	**H**
Panel % Imbalance	204%		40%	

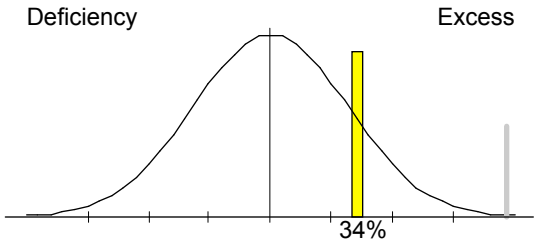


Panels take the individual lab measurements and combine them into useful categories to help you better understand your health status. This section explains each of the panels from the lab data provided. The current overall status for each panel is shown on the bell curve by the colored bar with the % Imbalance result. If you have measured this panel data in the past, the previous overall status is shown as the narrow grey column for comparison. The % Imbalance measures how far each result is from the middle of the lab reference range. It is also a way to compare items that have different reference ranges. *See page 1 for a full explanation of the imbalance ranges.

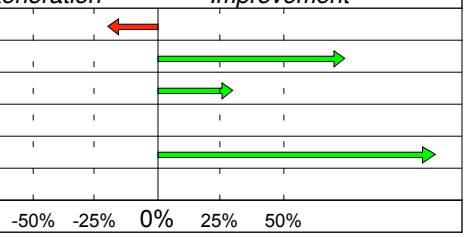
Liver Detox Indicators

Panel components: 2-Methylhippurate[H], Glucarate, Orotate, Pyroglutamate[H], Sulfate, a-Hydroxybutyrate[L].

This panel assesses how well your liver removes toxins from your system. This profile may indicate: high environmental toxins, improper regulation of cell growth, hereditary deficiencies, and a depressed ability of the liver to detoxify itself. Consider a detoxification protocol. Review your Supplement List Explanation..



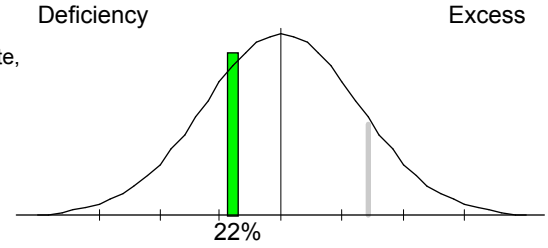
Progress Summary	4/28/2009		**1/19/2011**	
2-Methylhippurate	98%	H	**118%**	**H**
Glucarate	86%	H	12%	
Orotate	33%	H	3%	
Pyroglutamate	30%	H	28%	H
Sulfate	713%	H	-17%	
a-Hydroxybutyrate	-25%	L	-25%	L
Panel % Imbalance	164%		34%	



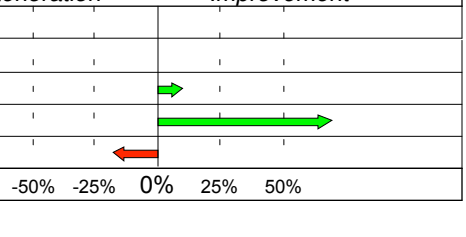
Neurotransmitters

Panel components: Vanilmandelate[L], Homovanillate[L], 5-Hydroxyindoleacetate, Kynurenate, Quinolinate.

Neurotransmitters are chemicals the brain uses to make the entire neurological system function - including all body functions. This panel assesses neurotransmitter production. This profile shows a percent imbalance below 25%, so no abnormalities were found.



Progress Summary	4/28/2009		**1/19/2011**	
Vanilmandelate	26%	H	-26%	L
Homovanillate	-32%	L	-30%	L
5-Hydroxyindoleacetate	21%		-11%	
Kynurenate	92%	H	23%	
Quinolinate	-1%		-19%	
Panel % Imbalance	34%		22%	



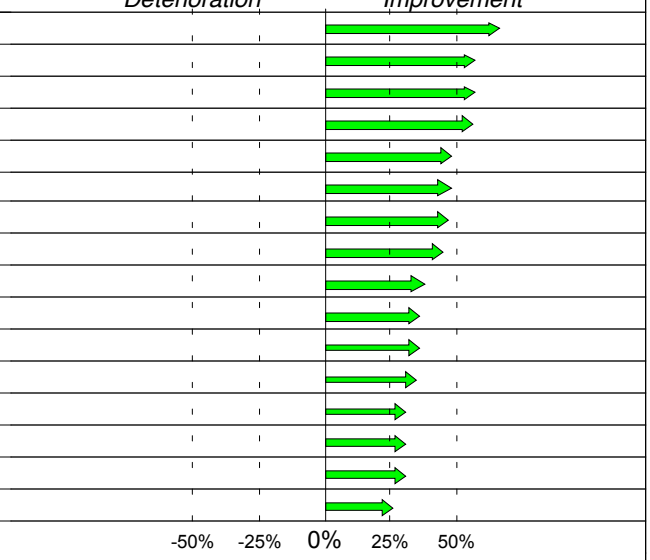
Progress Report Summary

Anna
Female / Age: 58

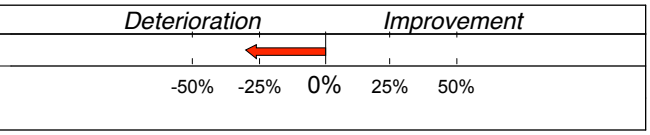
Plasma Amino Acids: 1/18/2011

This page summarizes all results that improved or deteriorated at least 25%. The arrow's length is proportional to the change in the lab value. Green arrows represent improvement. Red arrows represent deterioration.

Imbalance % on:	4/29/2009	**1/18/2011**
Phosphoserine	-67% L	0%
Tryptophan	67% H	10%
Hydroxyproline	57% H	0%
Glutamine	-57% L	-1%
Threonine	-64% L	-15%
Histidine	-56% L	-8%
Serine	-68% L	-21%
Asparagine	-60% L	-14%
Glycine	-74% L	-37% L
Tyrosine	-37% L	0%
Lysine	-41% L	5%
Phenylalanine	-40% L	-5%
Taurine	-33% L	1%
Phosphoethanolamine	-33% L	1%
Ornithine	-32% L	-1%
Homocystine	-36% L	10%
Average % Imbalance	34%	**14%**
Direction of Imbalance	Deficiency	**Deficiency**



Imbalance % on:	4/29/2009	**1/18/2011**
Cystine	26% H	**56% H**
Average % Imbalance	34%	**14%**
Direction of Imbalance	Deficiency	**Deficiency**



For the full discussion of out-of-range results, see page 10.

For the alphabetical listing of all Plasma Amino Acids progress results, see page 46.

Detailed Progress Report Summary

Anna
Female / Age: 58

Plasma Amino Acids: 1/18/2011

This page shows all of the results' changes. The arrow's length is proportional to the change in the lab value. Green arrows represent improvement. Red arrows represent deterioration.

Imbalance % on:	4/29/2009		**1/18/2011**	*Deterioration* / *Improvement*
1-Methylhistidine	-9%		-27% L	
3-Methylhistidine	19%		27% H	
a-Aminoadipic Acid	-7%		-25% L	
a-Amino-N-Butyric Acid	-6%		9%	
Alanine	-19%		19%	
Anserine	-9%		6%	
Arginine	-28%	L	3%	
Asparagine	-60%	L	-14%	
Aspartic Acid	-47%	L	-41% L	
Carnosine	-6%		-12%	
Citrulline	-23%		-17%	
Cystine	26%	H	**56% H**	
Ethanolamine	5%		8%	
GABA	0%		-20%	
Glutamic Acid	-25%	L	-38% L	
Glutamine	-57%	L	-1%	
Glycine	-74%	L	-37% L	
Histidine	-56%	L	-8%	
Homocystine	-36%	L	10%	
Hydroxyproline	57%	H	0%	
Isoleucine	-44%	L	-21%	
Leucine	-26%	L	-10%	
Lysine	-41%	L	5%	
Methionine	-23%		-21%	
Ornithine	-32%	L	-1%	
Phenylalanine	-40%	L	-5%	
Phosphoethanolamine	-33%	L	1%	
Phosphoserine	-67%	L	0%	
Proline	-31%	L	-11%	
Sarcosine	24%		-12%	
Serine	-68%	L	-21%	
Taurine	-33%	L	1%	
Threonine	-64%	L	-15%	
Tryptophan	67%	H	10%	
Tyrosine	-37%	L	0%	
Valine	-33%	L	-9%	
Average % Imbalance	34%		**14%**	-50% -25% 0% 25% 50%
Direction of Imbalance	Deficiency		**Deficiency**	

Progress Report Summary

Anna
Female / Age: 58

Blood Test : 1/18/2011

This page summarizes all results that improved or deteriorated at least 25%. The arrow's length is proportional to the change in the lab value. Green arrows represent improvement. Red arrows represent deterioration.

Imbalance % on:	4/29/2009		**1/18/2011**	*Deterioration* *Improvement*
Basophils	-40%	L	0%	
B.U.N./Creatinine Ratio	49%	H	11%	
Glucose	62%	H	32% H	
Average % Imbalance	23%		**26%**	-50% -25% 0% 25% 50%
Direction of Imbalance	Excess		**Deficiency**	

Imbalance % on:	4/29/2009		**1/18/2011**	*Deterioration* *Improvement*
Calcium/Phosphorus Ratio	0%		**-274% L**	
Average % Imbalance	23%		**26%**	-50% -25% 0% 25% 50%
Direction of Imbalance	Excess		**Deficiency**	

For the full discussion of out-of-range results, see page 10.

For the alphabetical listing of all Blood Test progress results, see page 48.

Detailed Progress Report Summary

Anna
Female / Age: 58

Blood Test : 1/18/2011

This page shows all of the results' changes. The arrow's length is proportional to the change in the lab value. Green arrows represent improvement. Red arrows represent deterioration.

Imbalance % on:	4/29/2009		**1/18/2011**		*Deterioration* ... *Improvement*
A/G Ratio	0%		-12%		
Albumin	10%		19%		
Alkaline Phosphatase	10%		-2%		
Anion Gap	-30%	L	22%		
B.U.N.	17%		2%		
B.U.N./Creatinine Ratio	49%	H	11%		
Basophil Count	-44%	L	-24%		
Basophils	-40%	L	0%		
Bilirubin, Total	0%		-5%		
Calcium	25%	H	12%		
Calcium/Phosphorus Ratio	0%		**-274%**	**L**	
Chloride	25%	H	14%		
Cholesterol	24%		28%	H	
CO2	0%		-17%		
Creatinine	4%		-9%		
Eosinophil Count	-20%		15%		
Eosinophils	-15%		21%		
GGT	-13%		18%		
Globulin	-9%		-10%		
Glucose	62%	H	32%	H	
HDL-Cholesterol	-25%		-14%		
Hematocrit	29%	H	49%	H	
Hemoglobin	34%	H	41%	H	
Iron, Total	12%		17%		
LDL	90%	H	**84%**	**H**	
Lymphocyte Count	-38%	L	-33%	L	
Lymphocytes	-32%	L	-13%		
MCH	27%	H	3%		
MCHC	18%		-13%		
MCV	5%		15%		
Monocyte Count	-15%		2%		
Monocytes	12%		28%	H	
Neutrophil Count	-12%		-31%	L	
Neutrophils	21%		0%		
Potassium	0%		-9%		
Protein, Total	7%		-6%		
R.B.C.	20%		26%	H	
sGOT	6%		-3%		
sGPT	35%	H	34%	H	
Sodium	-5%		-10%		
Thyroxine (T4)	-30%	L	-15%		
Triglycerides	21%		38%	H	
Ultra-Sensitive TSH	-128%	L	**-128%**	**L**	
W.B.C.	-23%		-32%	L	
Average % Imbalance	23%		**26%**		-50% -25% 0% 25% 50%
Direction of Imbalance	Excess		**Deficiency**		

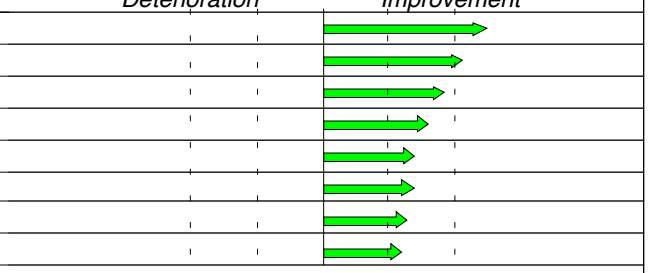
Progress Report Summary

Anna
Female / Age: 58

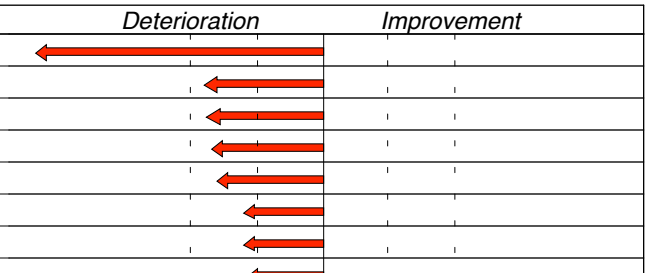
Hair Analysis: 12/14/2010

This page summarizes all results that improved or deteriorated at least 25%. The arrow's length is proportional to the change in the lab value. Green arrows represent improvement. Red arrows represent deterioration.

Imbalance % on:	2/6/2006	**12/14/2010**
Zinc	75% H	13%
Mercury	85% H	31% H
Silver	50% H	-3%
Thallium	-40% L	0%
Germanium	-115% L	**-80% L**
Molybdenum	-85% L	**-50% L**
Selenium	-82% L	**50% H**
Thorium	-30% L	0%
Average % Imbalance	37%	**48%**
Direction of Imbalance	Deficiency	**Deficiency**



Imbalance % on:	2/6/2006	**12/14/2010**
Iodine	-46% L	**527% H**
Vanadium	-58% L	**103% H**
Calcium	-24%	**-68% L**
Manganese	-10%	**-52% L**
Arsenic	1%	42% H
Sodium	-18%	-48% L
Magnesium	-11%	-41% L
Strontium	-19%	-48% L
Average % Imbalance	37%	**48%**
Direction of Imbalance	Deficiency	**Deficiency**



For the full discussion of out-of-range results, see page 10.

For the alphabetical listing of all Hair Analysis progress results, see page 50.

Detailed Progress Report Summary

Anna
Female / Age: 58

Hair Analysis: 12/14/2010

This page shows all of the results' changes. The arrow's length is proportional to the change in the lab value. Green arrows represent improvement. Red arrows represent deterioration.

Imbalance % on:	2/6/2006	**12/14/2010**	*Deterioration* / *Improvement*
Aluminum	-15%	-27% L	
Antimony	-9%	-30% L	
Arsenic	1%	42% H	
Barium	-29% L	-46% L	
Beryllium	0%	0%	
Bismuth	-30% L	-50% L	
Boron	-46% L	-27% L	
Cadmium	23%	-28% L	
Calcium	-24%	**-68% L**	
Chromium	-17%	-18%	
Cobalt	-36% L	**-59% L**	
Copper	-26% L	-35% L	
Germanium	-115% L	**-80% L**	
Iodine	-46% L	**527% H**	
Iron	-75% L	**-64% L**	
Lead	-39% L	-30% L	
Lithium	-71% L	**-73% L**	
Magnesium	-11%	-41% L	
Manganese	-10%	**-52% L**	
Mercury	85% H	31% H	
Molybdenum	-85% L	**-50% L**	
Nickel	-38% L	-37% L	
Phosphorus	-27% L	-16%	
Platinum	10%	10%	
Potassium	-47% L	-44% L	
Rubidium	-40% L	-35% L	
Selenium	-82% L	**50% H**	
Silver	50% H	-3%	
Sodium	-18%	-48% L	
Strontium	-19%	-48% L	
Sulfur	37% H	33% H	
Thallium	-40% L	0%	
Thorium	-30% L	0%	
Tin	-13%	-37% L	
Titanium	-1%	16%	
Uranium	-27% L	-42% L	
Vanadium	-58% L	**103% H**	
Zinc	75% H	13%	
Zirconium	-53% L	-41% L	
Average % Imbalance	37%	**48%**	-50% -25% 0% 25% 50%
Direction of Imbalance	Deficiency	**Deficiency**	

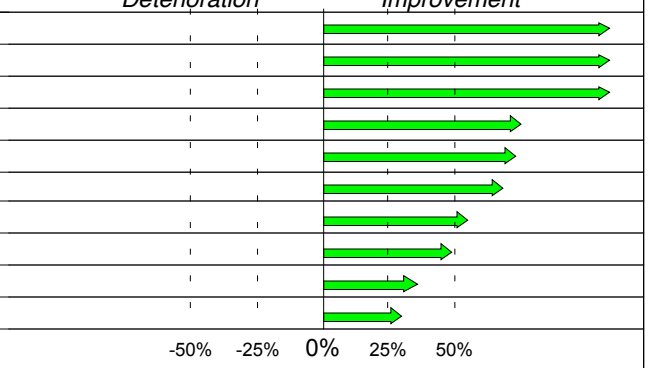
Progress Report Summary

Anna
Female / Age: 58

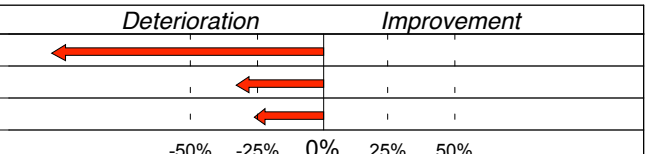
Urine Organic Acids: 1/19/2011

This page summarizes all results that improved or deteriorated at least 25%. The arrow's length is proportional to the change in the lab value. Green arrows represent improvement. Red arrows represent deterioration.

Imbalance % on:	4/28/2009	**1/19/2011**
Phenylacetate	1033% H	17%
Sulfate	713% H	-17%
D-Lactate	395% H	-43% L
Fumarate	89% H	-13%
Glucarate	86% H	12%
Kynurenate	92% H	23%
Pyruvate	58% H	-2%
Benzoate	148% H	**99% H**
p-Hydroxyphenyllactate	70% H	34% H
Orotate	33% H	3%
Average % Imbalance	79%	**37%**
Direction of Imbalance	Excess	**Excess**



Imbalance % on:	4/28/2009	**1/19/2011**
D-Arabinitol	0%	**103% H**
Succinate	6%	-39% L
Adipate	-4%	-31% L
Average % Imbalance	79%	**37%**
Direction of Imbalance	Excess	**Excess**



For the full discussion of out-of-range results, see page 10.

For the alphabetical listing of all Urine Organic Acids progress results, see page 52.

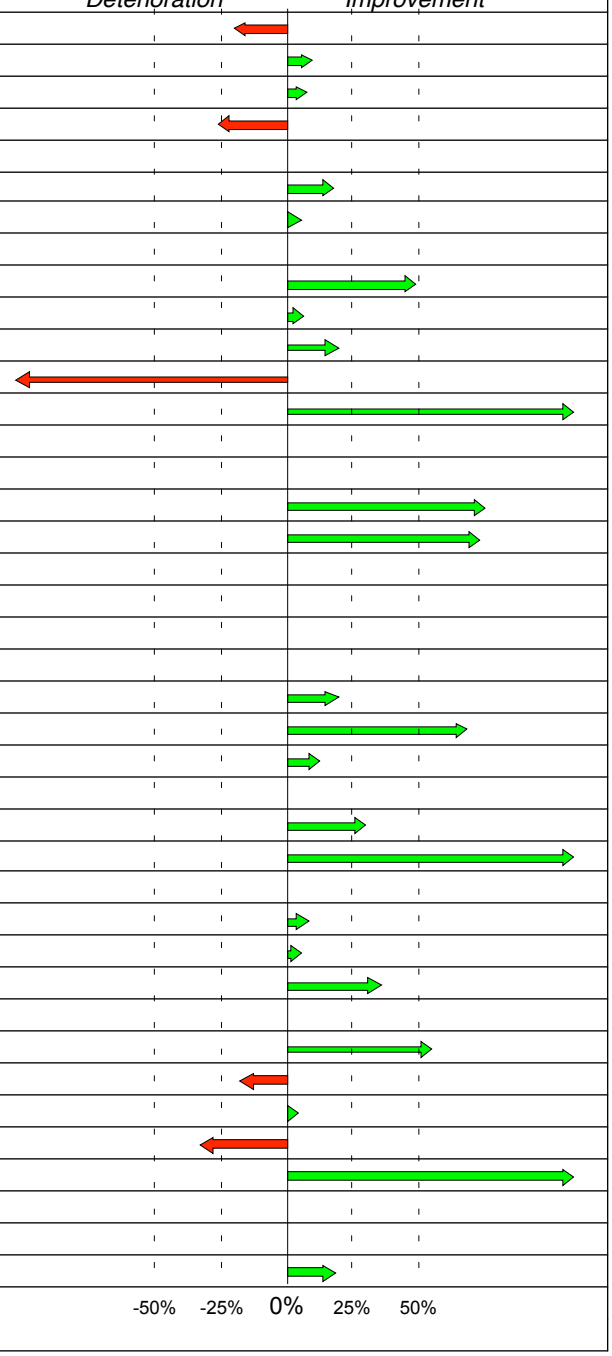
Detailed Progress Report Summary

Anna
Female / Age: 58

Urine Organic Acids: 1/19/2011

This page shows all of the results' changes. The arrow's length is proportional to the change in the lab value. Green arrows represent improvement. Red arrows represent deterioration.

Imbalance % on:	4/28/2009		**1/19/2011**	
2-Methylhippurate	98%	H	**118%**	**H**
5-Hydroxyindoleacetate	21%		-11%	
8-Hydroxy-2-deoxyguan	8%		-1%	
Adipate	-4%		-31%	L
a-Hydroxybutyrate	-25%	L	-25%	L
a-Ketoglutarate	-31%	L	13%	
a-Ketoisocaproate	-32%	L	27%	H
a-Ketoisovalerate	-25%	L	-25%	L
Benzoate	148%	H	**99%**	**H**
cis-Aconitate	-28%	L	-21%	
Citrate	-30%	L	-10%	
D-Arabinitol	0%		**103%**	**H**
D-Lactate	395%	H	-43%	L
Ethylmalonate	-1%		-3%	
Formiminoglutamic Acid	47%	H	47%	H
Fumarate	89%	H	-13%	
Glucarate	86%	H	12%	
Hippurate	11%		-6%	
Homovanillate	-32%	L	-30%	L
Hydroxymethylglutarate	-13%		-12%	
Indican	-49%	L	-49%	L
Isocitrate	47%	H	27%	H
Kynurenate	92%	H	23%	
Malate	18%		-5%	
Methylmalonate	-14%		-19%	
Orotate	33%	H	3%	
Phenylacetate	1033%	H	17%	
Phenylpropionate	30%	H	30%	H
p-Hydroxybenzoate	20%		12%	
P-Hydroxyphenylacetate	17%		12%	
p-Hydroxyphenyllactate	70%	H	34%	H
Pyroglutamate	30%	H	28%	H
Pyruvate	58%	H	-2%	
Quinolinate	-1%		-19%	
Suberate	11%		6%	
Succinate	6%		-39%	L
Sulfate	713%	H	-17%	
Tricarballylate	-35%	L	-35%	L
Vanilmandelate	26%	H	-26%	L
Xanthurenate	43%	H	24%	
Average % Imbalance	79%		**37%**	
Direction of Imbalance	Excess		**Excess**	



Health Improvement Plan Checklist

Anna
Female / Age: 58

Foundational Wellness & Hair Elements: January 2011

Your Health Improvement Plan takes all of your biochemical data and imbalances, and makes personalized recommendations to help you bring your body back into balance. All recommendations are backed by published medical research. This page is a summary of the nutritional recommendations. Please consult with your healthcare professional.

Supplement Recommendations

The following supplements may help. Consult your practitioner:

- ☐ **Antioxidant Complex**
  See Nutrition Detail
- ☐ **Chelation Therapy - Arsenic**
  See Nutrition Detail
- ☐ **Digestive Enzymes**
  With meals
- ☐ **Magnesium**
  2x daily 360 mg
- ☐ **Tyrosine**
  2x daily 500 mg
- ☐ **Yeast Reduction Protocol**
  See Nutrition Detail
- ☐ **Glycine**
  2x daily 1000 mg
- ☐ **Billberry**
  1 - 3 times daily
- ☐ **Ginseng (Panax)**
  1 - 3 times daily
- ☐ **CAC Entry Protocol**
  See Nutrition Detail
- ☐ **Detoxification Protocol**
  See Nutrition Detail
- ☐ **Increase Fluid Intake**
  6-8 glasses daily
- ☐ **Oral Electrolyte - Balanced Formula**
  2x daily
- ☐ **Whey Protein**
  See Nutrition Detail
- ☐ **Betaine HCL**
  2 tablets at mealtime
- ☐ **Probiotics**
  1x daily 3 caps
- ☐ **Garlic**
  1 - 3 times daily
- ☐ **Milk thistle**
  1 - 3 times daily

Food Recommendations

The following foods may help balance or strengthen your biochemistry:

Beans & Nuts
Cashews
Macadamia Nuts
Pine Nuts
Pumpkin Seeds
Soy Beans

Fruits
Apricots, Dried
Grapefruit
Guava
Honeydew Melon
Loganberries

Vegetables
Artichoke
Green Beans
Kale
Red Peppers

Foods to AVOID

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

Beverages
Coffee
Green Tea

Dairy
Dairy Cream

Fish
Mackerel
Shark
Swordfish
Tuna

Fruits
Coconut Cream
Coconut Milk

Meat
Bacon
Chuck Roast
Liver Pate
Sweetbreads

Other
Cholesterol Rich Foods
Hydrogenated Fats
Margarine

Poultry & Eggs
Egg Yolk

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Antioxidant Complex

Rationale

Oxidative Damage is high.

When certain oxidative test markers appear, the following protocol can be followed: a Broad Spectrum Antioxidant which should include CoEnzyme Q10 (2 times daily, Vitamins A and E as well as Selenium (2 times daily) and Vitamin C (1000 mg 2 times daily).
Vitamin E should only be consumed with the advice of a physician if currently taking Coumadin or other blood thinning medications.
COENZYME Q10
An important antioxidant and esssential component of mitochondria, CoQ10 can be depleted if on cholesterol lowering drugs.
VITAMIN A/MIXED-CAROTENES
Vitamin A is involved in the growth and repair of tissue and helps maintain healthy skin. It is essential in the maintenance of eyesight, building of bones, teeth and blood. It also enhances production of RNA.
VITAMIN E
Vitamin E is a major antioxidant, enhances lymphocyte production, maintains cellular integrity, and aids in the biosynthesis of heme proteins
SELENIUM (Se)
Cofactor in glutathione peroxidase, in detoxification of peroxides, free radicals and thyroid hormone deionases.
VITAMIN C
Water-soluble vitamin essential for the synthesis and maintenance of collagen as well as body tissue cells, cartilage, bones, teeth, skin and tendons. Helps protect the immune system. Also improves iron and calcium absorption as well as trace mineral utilization.

CAC Entry Protocol

Rationale

CA Cycle Entry is high.

When the entry point to the citric acid cycle is blocked, the ability to utilize carbohydrates to produce energy is impaired. The following protocol may be helpful in bringing down this ratio.
B-Complex - 2x daily
Amino Acid Complex - 5 grams 2x daily
CoEnzyme Q10 - 50 mg 2x daily
Alpha Lipoic Acid - 200 mg 2x daily
Vitamin C - 1000 mg 2x daily
For children between 6-18
B-Complex - 1x daily
CoEnzyme Q10 - 25 mg daily
Vitamin C - 500 mg daily
Amino Acid Complex - 5 grams daily
For children under the age of 6:
Amino Acid Complex with co-factors - 1/8 tsp 2x daily
Vitamin C - 125 mg 2x daily
CoEnzyme Q10 - 12.5 mg daily
For children between the ages of 6 and 18 use 1/2 the adult dose.

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Chelation Therapy - Arsenic

Rationale

Arsenic is high.

Arsenic in hair provides a rough estimate of total exposure and absorption. Chelation therapy through a qualified health care practitioner is advised. Checking for sources of arsenic and avoiding them is essential in lowering total body burden. These sources include shellfish, water, and insecticides. DMPS or DMSA may be helpful in the chelation process. THE USE OF ALCOHOL INCREASES THE TOXICITY OF ARSENIC AND SHOULD BE AVOIDED.
Supplement Recomendations
Broad Spectrum Trace Mineral Supplement - Twice Daily
Balanced Electrolyte Soution - Three times Daily

Detoxification Protocol

Rationale

Hippurate is normal.
2-Methylhippurate is high.

Due to the elevated level of 2-Methylhippurate, it is important that you avoid xylene, a compound found in fossil fuels and as a solvent as well as toluene and styrene. A comprehensive detoxification protocol should include at least 250 mg of glycine daily along with a balanced amino acid complex and a broad spectrum antioxidant formula with Vitamin C and CoEnzyme Q10.
Adults:
Glycine - 500 mg 2x daily
Amino Acid Complex - 5 grams 2x daily
Broad Spectrum Antioxidant - 2x daily
Children:
Glycine - 250 mg 2x daily
Amino Acid Complex 2.5 grams 2x daily
Broad Spectrum Antioxidant - 1x daily

Digestive Enzymes With meals

Rationale

Glucose and Triglycerides are high.

Digestive enzymes are helpful in situations where there are signs of allergy, nutrient depletion, improper fat, protein or carbohydrate metabolism.

Increase Fluid Intake 6-8 glasses daily

Rationale

Hematocrit, Hemoglobin and R.B.C. are high.

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.

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Magnesium 2x daily 360 mg

Rationale

Magnesium is low.

Second most abundant mineral in intracellular fluid. It helps facilitate Na - K (sodium - potassium) transport and influences Ca levels. It is involved in vasodilation, contraction, as well as cardiac and skeletal muscle cells. Required in over 300 enzymes, temperature control, neuronal homeostasis and has a profound effect on cardiac physiology. Low hair magnesium should be correlated to RBC mineral levels for confirmation.

Oral Electrolyte - Balanced Formula 2x daily

Rationale

Potassium, CO2 and Sodium are normal.

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.

Tyrosine 2x daily 500 mg

Rationale

Vanilmandelate and Homovanillate are low.

Tyrosine is an amino acid which is essential to the synthesis of protein, catecholamines, melanin, and thyroid hormones. Vitamin C and folic acid are essential to its metabolism. The formation of thyroid hormone is dependent upon the absorption and sequestering of iodine which then attaches to tyrosine to form thyroxine.

Whey Protein

Rationale

a-Hydroxybutyrate is low.
Pyroglutamate is high.

High quality whey protein is one of the most effective means of boosting glutathione levels which seem to be deficient in this case. The whey should also contain an array of vitamins (especially vitamin C) and minerals along with immunoglobulins, glycine and N-acetyl cysteine.
For adults, at least one serving full serving and for children one-half a serving per day is recommended.

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Yeast Reduction Protocol

Rationale

D-Arabinitol is high.

Because of the relative increase in the marker for yeast and fungi D-Arabinitol, it may be helpful to begin a yeast reduction protocol. Avoiding refined carbohydrates such as sugar, alcohol and other yeast-containing products is recommended. The introduction of probiotics such as Lactobacilli should also be started.
Probiotics - 3 times daily if D-Lactate is normal or low
Olive leaf extract - 2 times daily
Grapefruit seed extract - 2 times daily

Betaine HCL 2 tablets at mealtime

Rationale

Hydroxyproline and Proline are normal.
3-Methylhistidine is high.

When this pattern of imbalances show up, it may be due to a BCl/betaine deficiency and suggests muscle/collagen catabolism and inadequate synthesis due to inadequate quality and/or quantity of protein.

Glycine 2x daily 1000 mg

Rationale

Hippurate is normal.
Benzoate is high.

Glycine is an important amino acid and is necessary in phase II detoxification as it is a component of hippurate through its binding with benzoate.

Probiotics 1x daily 3 caps

Rationale

W.B.C. is low.
Monocytes is high.

Probiotic strains address dysbiosis in the gastrointestinal tract.

Billberry 1 - 3 times daily

Rationale

Iron, Total is normal.
Glucose and Triglycerides are high.

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 interfere with iron absorption.

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Garlic 1 - 3 times daily

Rationale

LDL and Cholesterol are high.

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.

Ginseng (Panax) 1 - 3 times daily

Rationale

Glucose is high.

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.

Milk thistle 1 - 3 times daily

Rationale

sGOT is normal.
sGPT is high.

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.

Aggravating Drugs List

Anna
Female / Age: 58

Foundational Wellness & Hair Elements: January 2011

Drugs listed below tend to further aggravate elements of blood chemistry that are out of range (H or L). The number after each drug denotes the number of elements in your biochemistry that can potentially be further imbalanced by that drug. *see ALERT at bottom of the page.

If a drug does not appear on this list, it does not mean it would not aggravate your biochemistry. This analysis is based on the lab data provided, which may or may not include all relevant measures of your biochemistry. Please consult with your healthcare professional. *see ALERT at bottom of page.

Analgesics
Acetaminophen(4)
Aspirin(5)
Codeine
Morphine(2)
Propoxyphene

Anti-Fungals
Amphotericin B(2)
Fluconazole
Griseofulvin(3)
Itraconazole(2)
Ketocanazole
Miconazole(3)

Anti-inflammatories
Carbenoxolone
Colchicine(3)
Diclofenac(2)
Fenoprofen
Ibuprofen(3)
Indomethacin(3)
Naproxen
Penicillamine(4)
Phenylbutazone(4)
Piroxicam(2)
Sulfasalazine(2)

Antianxieties
Chloral hydrate
Chlordiazepoxide(2)
Diazepam(2)
Flurazepam
Oxazepam
Paraldehyde(2)
Phenobarbital(3)

Antiarrhythmics
Procainamide(2)

Antibiotics
Amoxicillin
Ampicillin(4)
Cephaloridine(2)
Clindamycin(2)
Colistin
Cycloserine(2)
Echinomycin
Erythromycin(2)
Ethionamide(2)
Furazolidone(2)
Gentamicin
Kanamycin(2)
Lincomycin(2)
Methicillin
Neomycin
Nitrofurantoin(3)
Novobiocin(2)
Ofloxacin(2)
Paramethadione(3)
Penicillin(2)
Plicamycin(2)
Rifampin(2)
Spectinomycin
Streptomycin
Sulfamethizole(2)
Sulfisoxazole(2)
Tetracycline(2)
Troleandomycin
Vancomycin
Viomycin

Anticonvulsants
Carbamazepine(3)
Diphenylhydantoin
Paramethadione(3)
Phenytoin(4)
Trimethadione(3)
Valproic Acid(2)

Antidiabetic
Carbutamide(2)

Antihistamines
Promethazine(2)

Antihypertensives
Guanethidine
Propranolol(3)
Reserpine(2)

Antineoplastics and Antimetabolites
Azathioprine(2)
Busulfan
Fluorouracil(2)
Hydroxyurea(2)
Melphalen
Methotrexate(3)
Mitoxantrone(2)
Tamoxifen(3)

Antiplasticity Agents
Plicamycin(2)

Antipsychotics and Antidepressants
Chlorpromazine(5)
Clozapine
Lithium Carbonate(2)
MAO Inhibitors(3)
Phenelzine(3)
Protriptyline(3)
Reserpine(2)

Antiviral
Amantadine

Bronchodialators
Albuterol
Isoproterenol

Cardiovascular Agents
Nifedipine

Central Acting Alpha 2-Stimulants
Clonidine(4)
Methyldopa(5)

Chelators
EDTA

Chemotherapeutic Agents
Procarbazine

Diuretics
Acetazolamide
Chlorthalidone(5)
Clopamide(2)
Ethacrynic Acid(2)
Furosemide(3)
Methazolamide
Polythiazide(4)

Endothelin Antagonists
Levonorgestrel(2)
Nafarelin
Norethisterone

Hormonal Agents and Cytokines
ACTH
Estrogens
G-CSF(2)
Progesterone
Progestins

Hypoglycemic Agents
Acetohexamide(5)
Chlorpropamide(3)
Tolazamide(2)

Hypouricemic Agents
Allopurinol(2)
Colchicine(3)
Probenecid(2)

Immunosuppressants
Mercaptopurine(3)

Lipid Lowering Agents
Clofibrate(4)
Gemfibrozil
Lovastatin
Pravastatin(2)
Simvastatin

PDE5 inhibitor
Sildenafil
Tadalafil
Vardenafil

Renin Inhibitors
Arginine
Dextran

Sedatives
Carbromal

Serotonergic Antagonists
Amitriptyline(3)
Desipramine(2)
Fluphenazine(2)
Haloperidol(5)
Imipramine(5)
Thiothixene(3)
Tranylcypromine(2)

Steroids
Corticosteroids(4)
Cortisol

***ALERT:** Some drugs are very dangerous to stop taking abruptly. If you are currently taking a medication that appears on your aggravating drug list, consult your medical professional before making any changes.

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Steroids (cont)
Cortisone(3)
Prednisone(4)

Sympathomimetics
Anabolic Steroids
Levodopa(3)

Thyroid and Antithyroid Agents
Levothyroxine(2)
Methimazole(3)
Methylthiouracil(2)
Propylthiouracil(3)

Vasoldialators
Benziodarone
Diazoxide(2)
Hydralazine(2)

Your Health Risk Assessment takes all of your biochemical data and compares it to known disease patterns. You get a more complete picture of your health status by looking at the patterns of imbalances, not just the individual data points. This gives you more clarity in deciding where to focus your efforts.

Different “diseases” are not just medical terms. It has been shown that each disease represents a unique biochemical imbalance pattern. If a disease is listed on this page, it does not necessarily mean you have that disease. What it does mean is that there are biochemical imbalances present that are consistent with the imbalance pattern of that disease. Think of this as an early warning system. Your Health Improvement Plan helps address the specific imbalances shown.

Listed are both the measurements that are consistent with the disease pattern, as well as those that are not at risk. This approach also helps you understand where you are doing just fine. When you see measurements that are in balance, sometimes that means what you are already doing is working. Sometimes that shows you where your body is naturally able to maintain balance.

If a disease is not listed, that does not mean you are not at risk. This analysis is based on the lab data provided, which may or may not include all relevant measures of your biochemistry. Please consult with your healthcare professional.

Review Cardiovascular Risk Factors

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

The following 5 of 6 conditions were met:
Cholesterol is High at 28%.
Glucose is High at 32%.
Triglycerides is High at 38%.
LDL is High at 84%.
HDL-Cholesterol is Normal at -14%.

The following condition was NOT met:
Uric Acid is NOT High. It is missing from the test.

Dehydration (ICD9 276.50)

Suspect inadequate fluid intake or low concentration or imbalance in electrolytes.

The following 3 of 4 conditions were met:
R.B.C. is High at 26%.
Hemoglobin is High at 41%.
Hematocrit is High at 49%.

The following condition was NOT met:
Protein, Total is NOT High at -6%.

Syndrome X

The following 3 of 4 conditions were met:
Glucose is High at 32%.
Triglycerides is High at 38%.
LDL is High at 84%.

The following condition was NOT met:
HDL-Cholesterol is NOT Low at -14%.

Your Health Risk Assessment takes all of your biochemical data and compares it to known disease patterns. You get a more complete picture of your health status by looking at the patterns of imbalances, not just the individual data points. This gives you more clarity in deciding where to focus your efforts.

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Catecholamine Dysfunction

The following 2 of 3 conditions were met:
Homovanillate is Low at -30%.
Vanilmandelate is Low at -26%.

The following condition was NOT met:
Fumarate is NOT Low at -13%.

Bio-Clarity Disclaimer

All information provided in this Bio-Clarity™ report is provided for educational purposes only. The information available in this report should not be used as a substitute for professional medical care for the prevention, diagnosis, or treatment of health conditions.

This information should not be considered complete, nor should it be relied on in diagnosing or treating a medical condition. Content in this report does not contain information on all diseases, ailments, physical conditions or their treatment. Content in this report is based on the lab data provided, which may or may not include all relevant measures of your biochemistry.

The absence of a warning for a given drug or drug combination in no way should be construed to indicate that the drug or drug combination is safe, effective or appropriate for you. The absence of a warning for a given supplement or supplement combination in no way should be construed to indicate that the drug or drug combination is safe, effective or appropriate for you.

You are encouraged to confirm any information obtained from this report with other sources, and review all information regarding any medical condition or treatment with your physician.

NEVER DISREGARD PROFESSIONAL MEDICAL ADVICE OR DELAY SEEKING MEDICAL TREATMENT BECAUSE OF SOMETHING YOU HAVE READ ON OR ACCESSED THROUGH THIS HEALTH ASSESSMENT.

Consult your physician or a qualified healthcare practitioner regarding the applicability of any of the information or materials provided in this Bio-Clarity™ report in regards to your symptoms or medical condition. Always consult your physician before beginning a new treatment, diet or fitness program.