Casual Friday Series

Unlocking the Cognitive Decline Code – Part 4

BIOGENETIX.COM

Disclaimer

- *Information in this presentation is not intended, in itself, to diagnose, treat, reverse, cure, or prevent any disease. While this presentation is based on medical literature, findings, and text, The following statements have not been evaluated by the FDA.*
- *The information provided in this presentation is for your consideration only as a practicing health care provider. Ultimately you are responsible for exercising professional judgment in the care of your own patients.*

(Lifestyle + Genetics) x Time = Chronic Health IMPROVEMENT

Do I *have to run labs?*

Are you crazy?

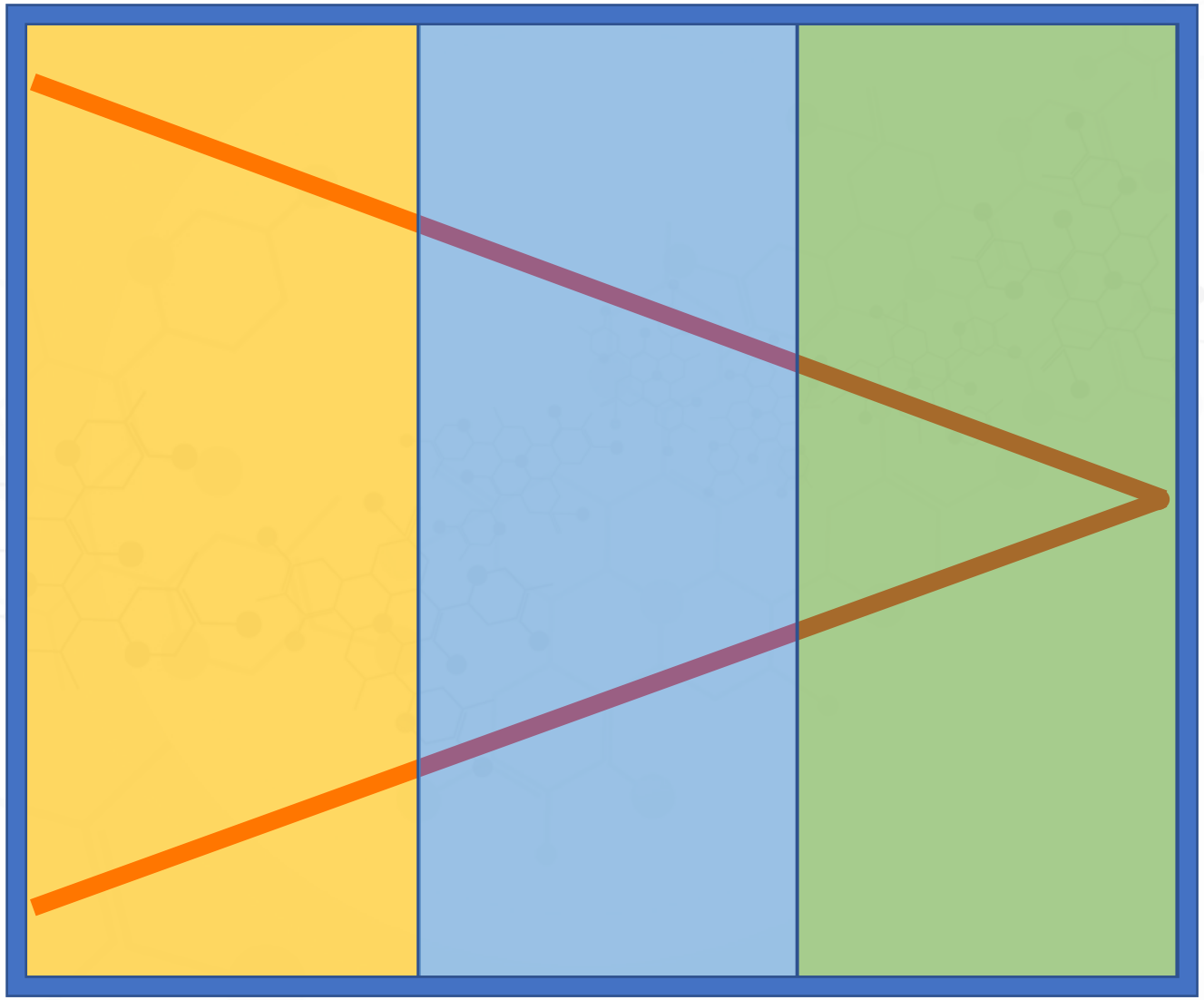
Ok – I’m in.

Congratulations! You made the right decision..

But what if I *can't?*

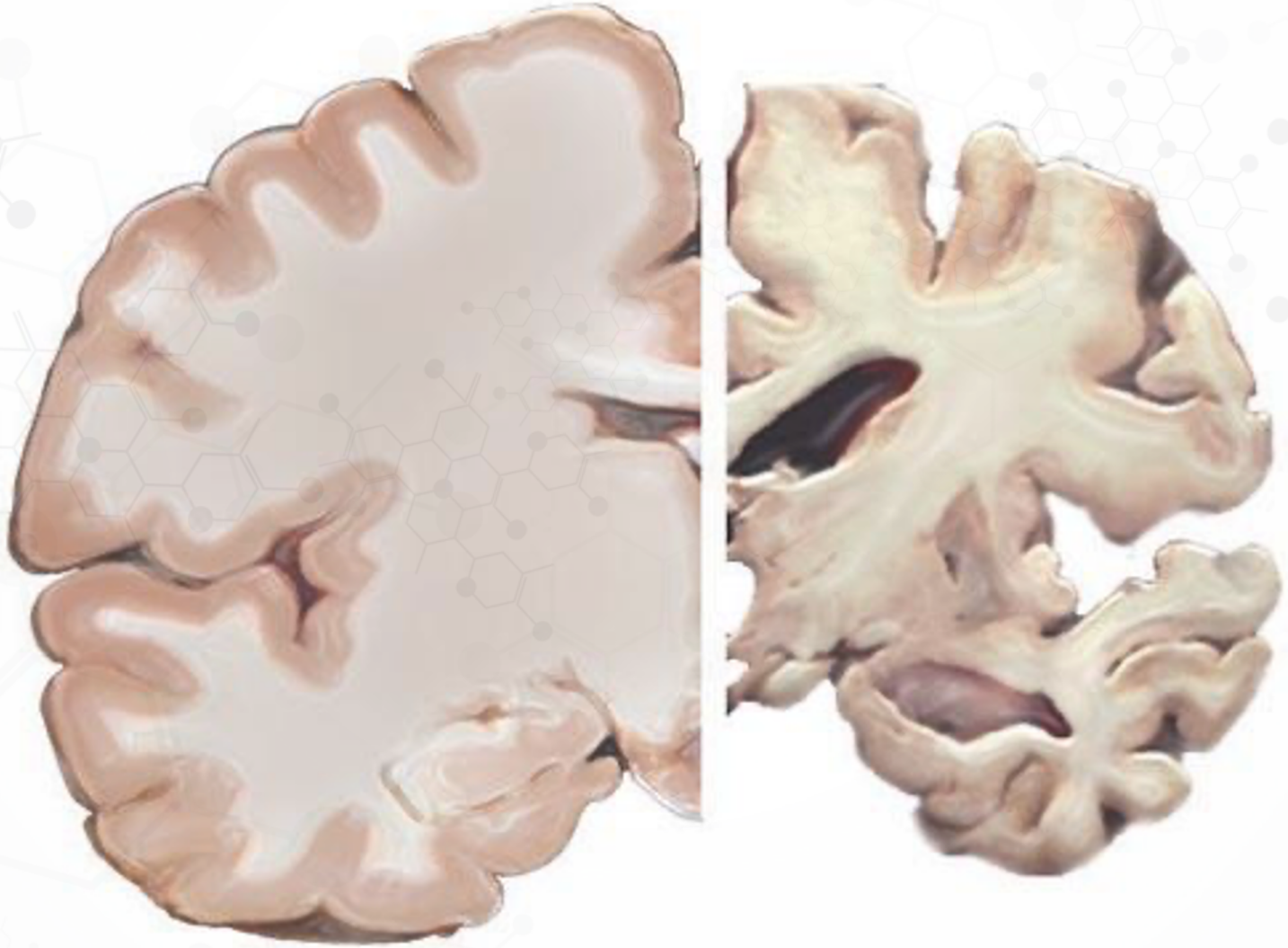
Then you better be good at lifestyle.

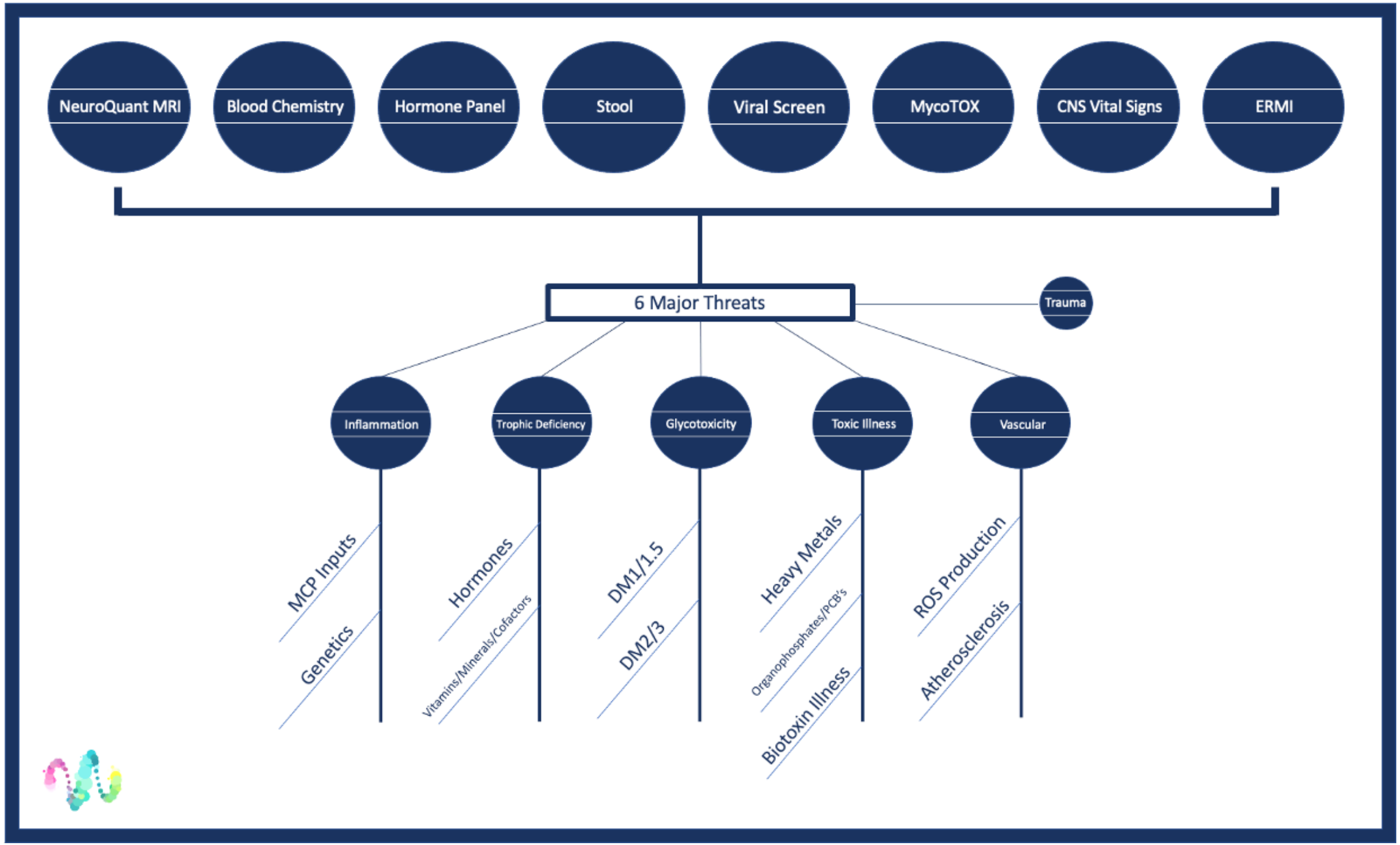
Building Quality of Life



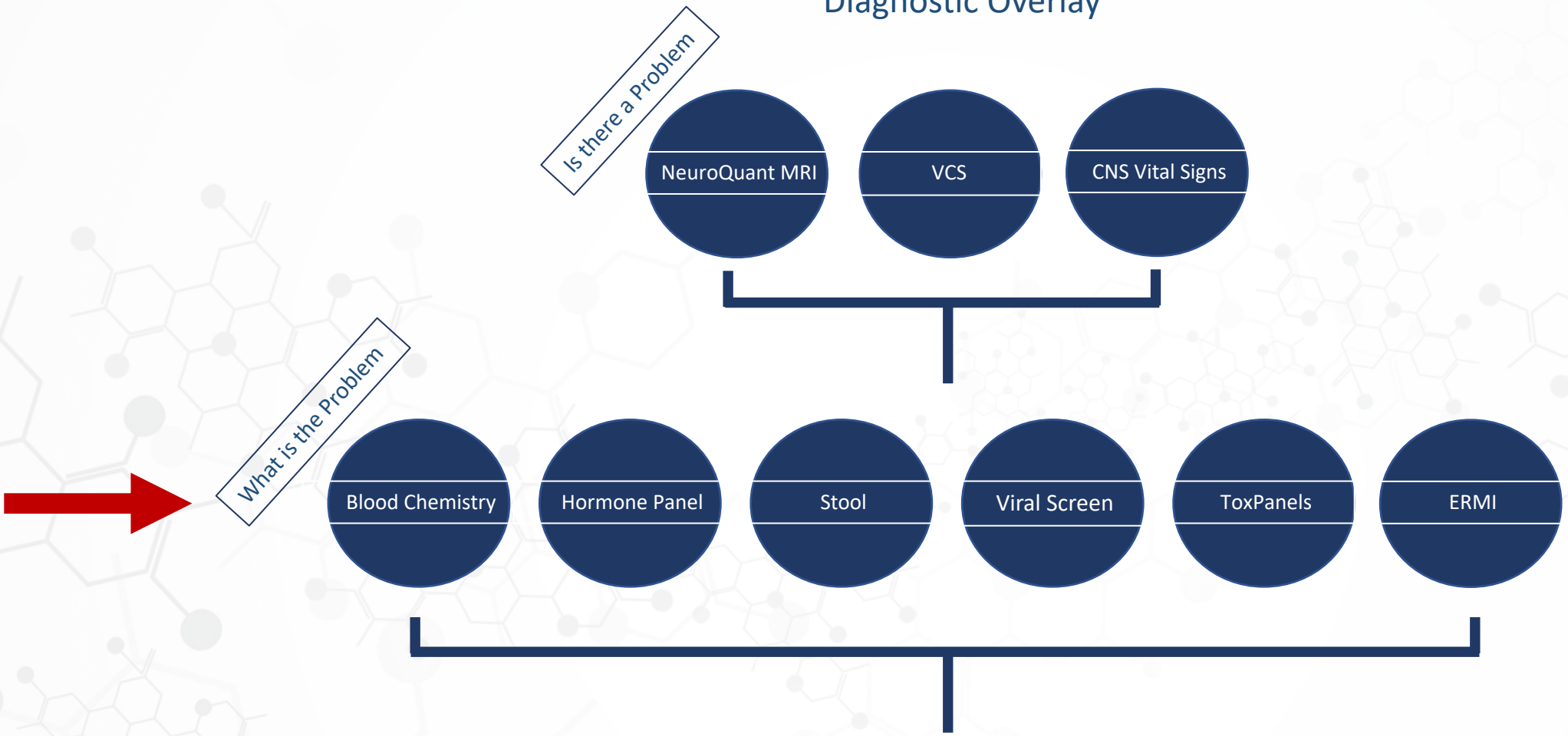
Healthy Brain

Severe AD

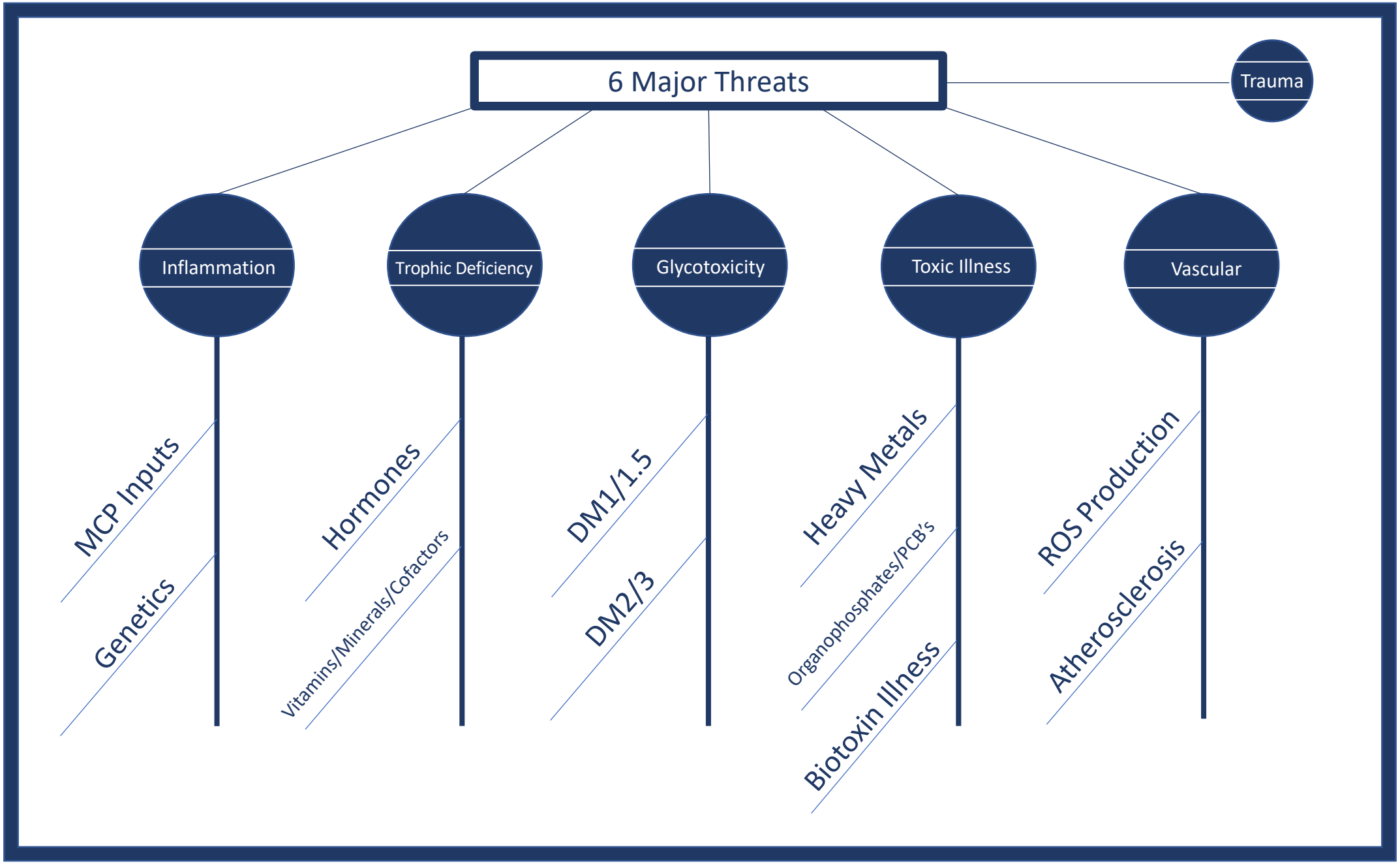



NeuroQuant MRI
Blood Chemistry
Hormone Panel
Stool
Viral Screen
MycoTOX
CNS Vital Signs
ERMI
6 Major Threats
Trauma
Inflammation
Trophic Deficiency
Glycotoxicity
Toxic Illness
Vascular
MCP Inputs
Genetics
Hormones
Vitamins/Minerals/Cofactors
DM1/1.5
DM2/3
Heavy Metals
Organophosphates/PCB's
Biotoxin Illness
ROS Production
Atherosclerosis

Diagnostic Overlay



What combination of the 6 threats (and their subcategories) are we dealing with?


6 Major Threats
Trauma
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Trophic Deficiency
Glycotoxicity
Toxic Illness
Vascular
MCP Inputs
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DM1/1.5
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A full walk-through…

Comp. Metabolic Panel (14)					
Glucose	**211**	**High**	mg/dL	65-99	01
BUN	24		mg/dL	8-27	01
Creatinine	1.06		mg/dL	0.76-1.27	01
Hgb A1c with eAG Estimation					
Hemoglobin A1c	**8.9**	**High**	%	4.8-5.6	01
Please Note:					01
Prediabetes: 5.7 - 6.4					
Diabetes: >6.4					
Glycemic control for adults with diabetes: <7.0					
Estim. Avg Glu (eAG)	209		mg/dL		
C-Peptide, Serum	**4.6**	**High**	ng/mL	1.1-4.4	01
C-Peptide reference interval is for fasting patients.					

Magnesium	**1.4**	**Low**	mg/dL	1.6-2.3	01
Fibrinogen Activity	284		mg/dL	193-507	01
Insulin	16.8		uIU/mL	2.6-24.9	01
Ferritin, Serum	222		ng/mL	30-400	01
C-Reactive Protein, Cardiac	**7.99**	**High**	mg/L	0.00-3.00	01

Relative Risk for Future Cardiovascular Event

Low	**<1.00**
Average	**1.00 - 3.00**
High	**>3.00**

Vitamin D, 25-Hydroxy	46.1		ng/mL	30.0 - 100.0	01

Vitamin D deficiency has been defined by the Institute of Medicine and an Endocrine Society practice guideline as a level of serum 25-OH vitamin D less than 20 ng/mL (1,2). The Endocrine Society went on to further define vitamin D insufficiency as a level between 21 and 29 ng/mL (2).

1. IOM (Institute of Medicine). 2010. Dietary reference intakes for calcium and D. Washington DC: The National Academies Press.
2. Holick MF, Binkley NC, Bischoff-Ferrari HA, et al. Evaluation, treatment, and prevention of vitamin D deficiency: an Endocrine Society clinical practice guideline. JCEM. 2011 Jul; 96(7):1911-30.

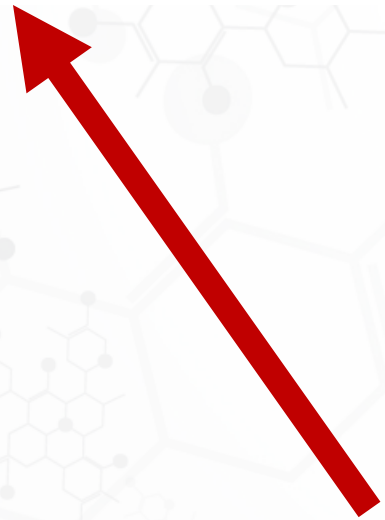
APOE Alzheimer's Risk

Methodology:

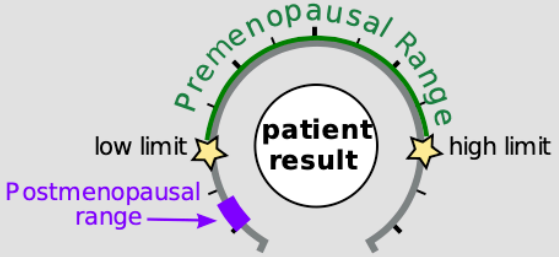
Patient DNA is assayed for the APOE genotype by PCR amplification of a specific region in exon 4 of the APOE gene followed by digestion with restriction enzyme Hha I and separation of fragments by polyacrylamide gel electrophoresis. This approach allows the APOE E2, E3, and E4 alleles to be distinguished. Analytical sensitivity and specificity are >99.5%. Individuals are interpreted as having one of the following genotypes: E2/E2, E3/E3, E4/E4, E2/E3, E2/E4, E3/E4.

APO E Genotyping Result:

E2/E4 (one copy of the APOE4 variant)

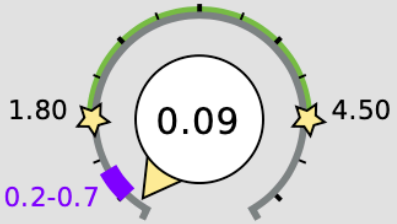


Key (how to read the results):

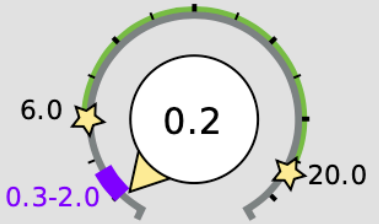


Sex Hormones

See Pages 2 and 3 for a thorough breakdown of sex hormone metabolites



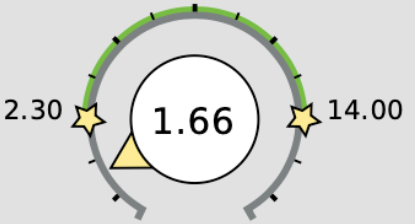
Estradiol(E2)



Progesterone

(Serum Equivalent, ng/mL)

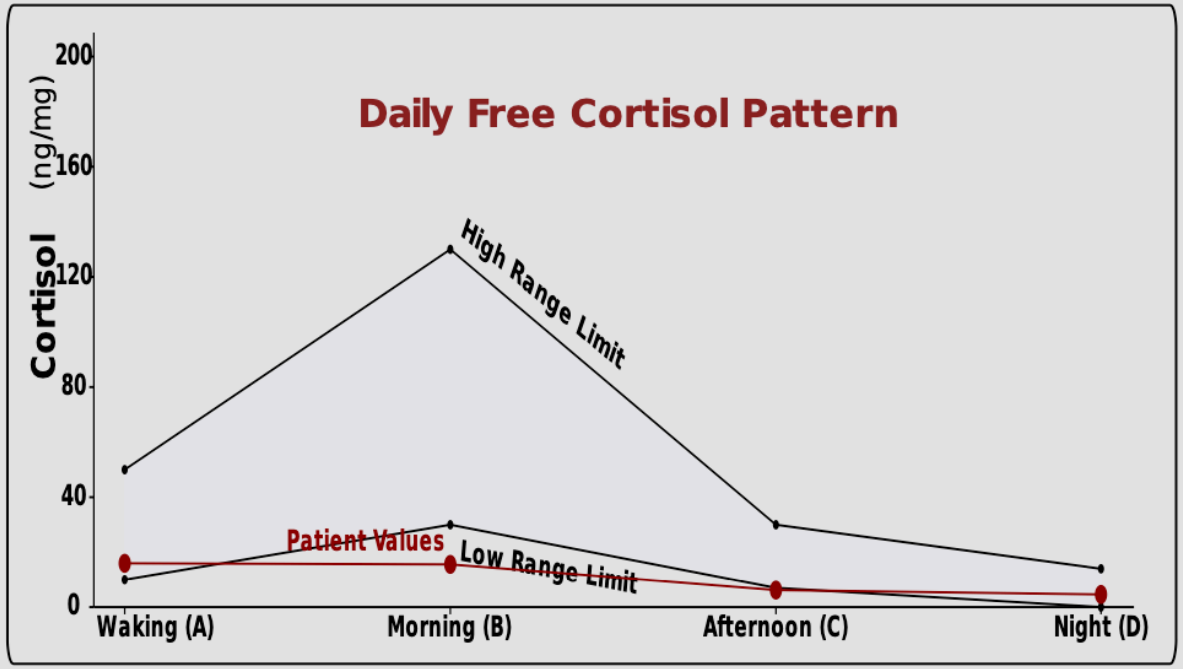
Progesterone Serum Equivalent is a calculated value based on urine pregnanediol



Testosterone

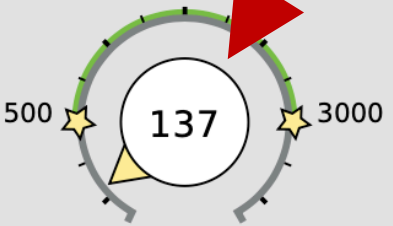
Adrenal Hormones

See pages 4 and 5 for a more complete breakdown of adrenal hormones



Total DHEA Production

Age	Range
20-39	1300-3000
40-60	750-2000
>60	500-1200



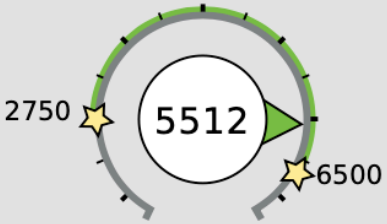
Total DHEA Production

(DHEAS + Etiocholanolone + Androsterone)

24hr Free Cortisol

(A+B+C+D)

cortisol metabolism

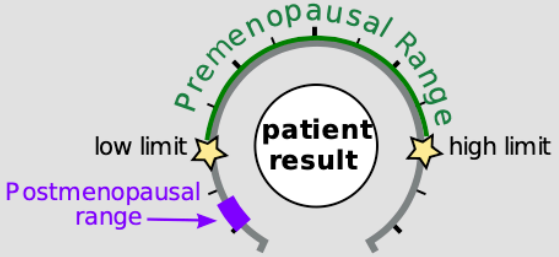


Metabolized Cortisol (THF+THE)

(Total Cortisol Production)

Free cortisol best reflects tissue levels. Metabolized cortisol best reflects total cortisol production.

Key (how to read the results):



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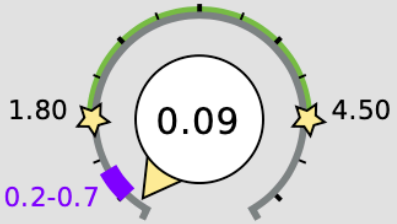

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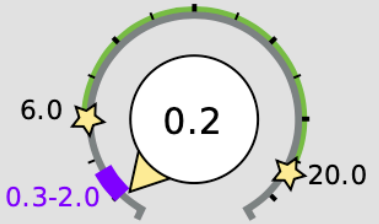

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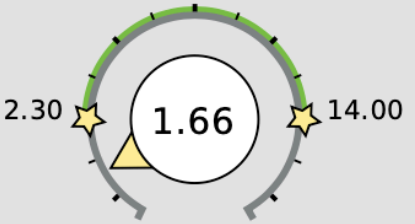

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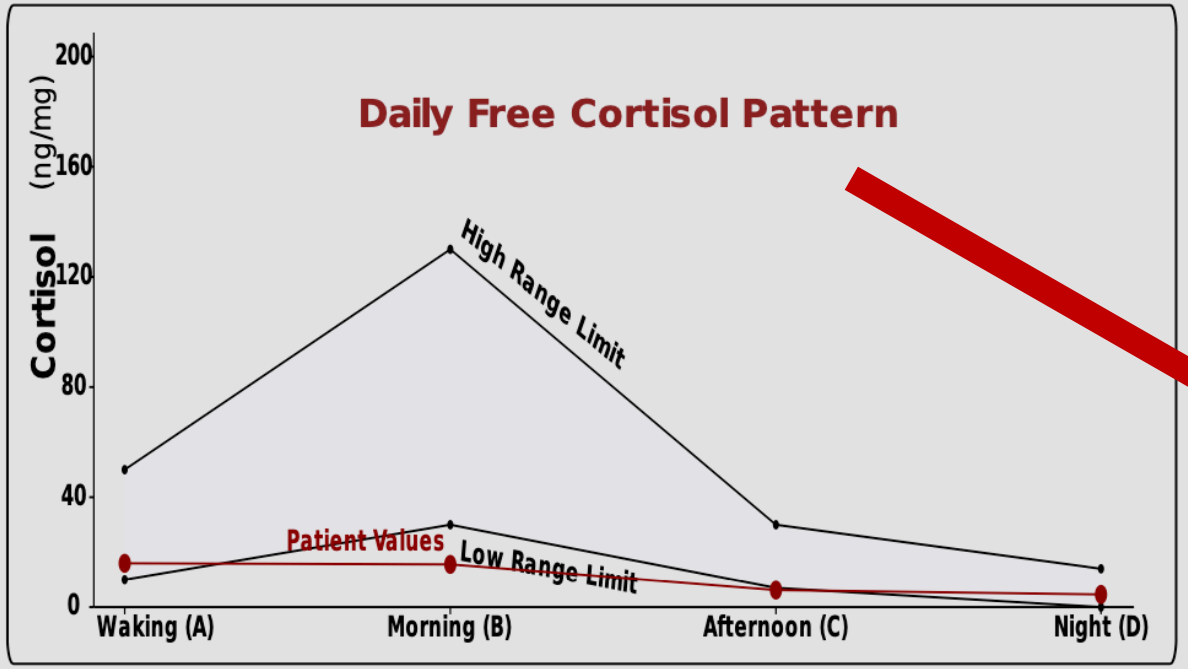
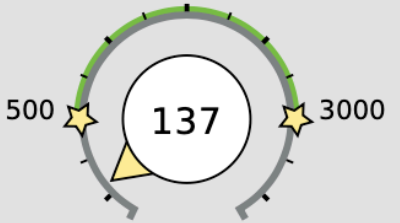


Total DHEA Production

Age	Range
20-39	130[illegible]3000
40-60	750-20[illegible]
>60	500-1200



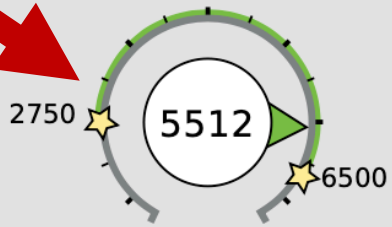
Total DHEA Production

([illegible]HEAS + Etiocholanolone + Androsterone)

24hr Free Cortisol

(A+B+C+D)

cortisol metabolism



Metabolized Cortisol (THF+THE)

(Total Cortisol Production)

Free cortisol best reflects tissue levels. Metabolized cortisol best reflects total cortisol production.

Potentially Toxic Elements

Element	10/7/2019	NA	Range	Units	Percentile Rank by Quintile 20	40	60	80	100	Percentile
Antimony	7.2	NA	<7.1	µg/L						92%
Arsenic	< 0.2	NA	<4.7	µg/L						NA
Cadmium	0.3 B	NA	<0.83	µg/L						46%
Cobalt	13.0	NA	<5.0	µg/L						99.9%
Lead	2.00	NA	<2.10	µg/dL						87%
Mercury	< 0.1	NA	<5.8	µg/L						NA
Silver	< 0.1	NA	<1.1	µg/L						NA
Strontium	23	NA	<49	µg/L						43%

Whole Blood Element Ratios:

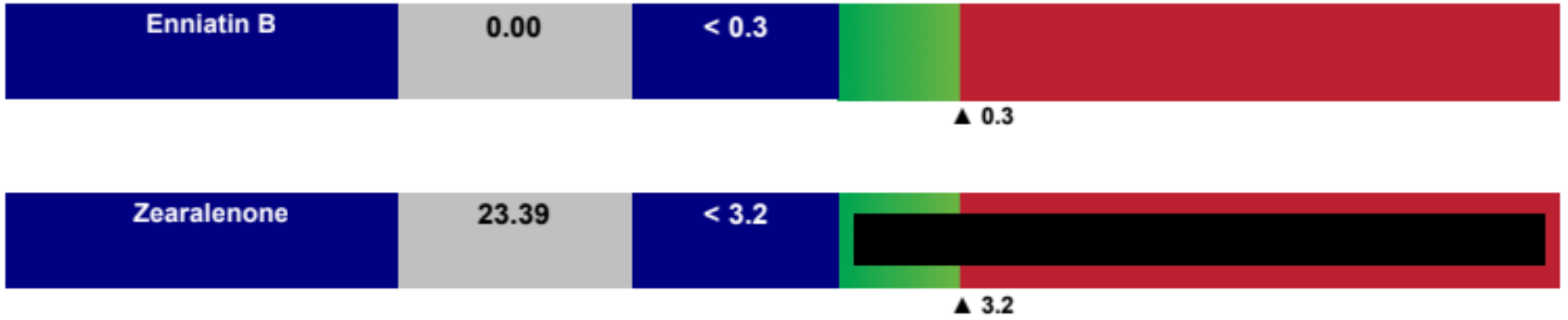
Element	10/7/2019	NA	Range	Units	20	40	60	80	100	Percentile
Ca/Mg Ratio	1.75	NA	1.20-1.99	NA						75%
Cu/Zn Ratio	0.21	NA	0.09-0.21	NA						94%

Mycotox Profile

Creatinine Value: 91.64 mg/dl

Metabolite	Results (ng/g creatinine)	Normal Range *	Abnormal Range
Aspergillus			
Aflatoxin-M1	0.00	< 0.5	▲ 0.5
Ochratoxin A	15.73	< 7.5	▲ 7.5
Gliotoxin	0.00	< 200	▲ 200

Fusarium



Multiple Mold Species

Group 1; Water Damage Molds

Species	SE/mg	
Aspergillus flavus/oryzae	65	*
Aspergillus fumigatus	14	
Aspergillus niger	170	*
Aspergillus ochraceus	1,489	* *
Aspergillus penicillioides	2,677	*
Aspergillus restrictus	678	* *
Aspergillus sclerotiorum	11	
Aspergillus sydowii	345	* *
Aspergillus unguis	1,346	* *
Aspergillus versicolor	984	* *
Aureobasidium pullulans	2,160	
Chaetomium globosum	4,980	* * *
Cladosporium sphaerospermum	421	*
Eurotium (Asp.) amstelodami	16,721	* *
Paecilomyces variotii	3	
Penicillium brevicompactum	1,494	* *
Penicillium corylophilum	435	* *
Penicillium crustosum	40	*
Penicillium purpurogenum	10	
Penicillium Spinulosum	22	*
Penicillium variabile	7	
Scopulariopsis brevicaulis/fusca	N D	
Scopulariopsis chartarum	13	
Stachybotrys chartarum	51	*
Trichoderma viride	51	*
Wallemia sebi	885	*

Sum of Logs	56.8

Group 2; Common Indoor Molds

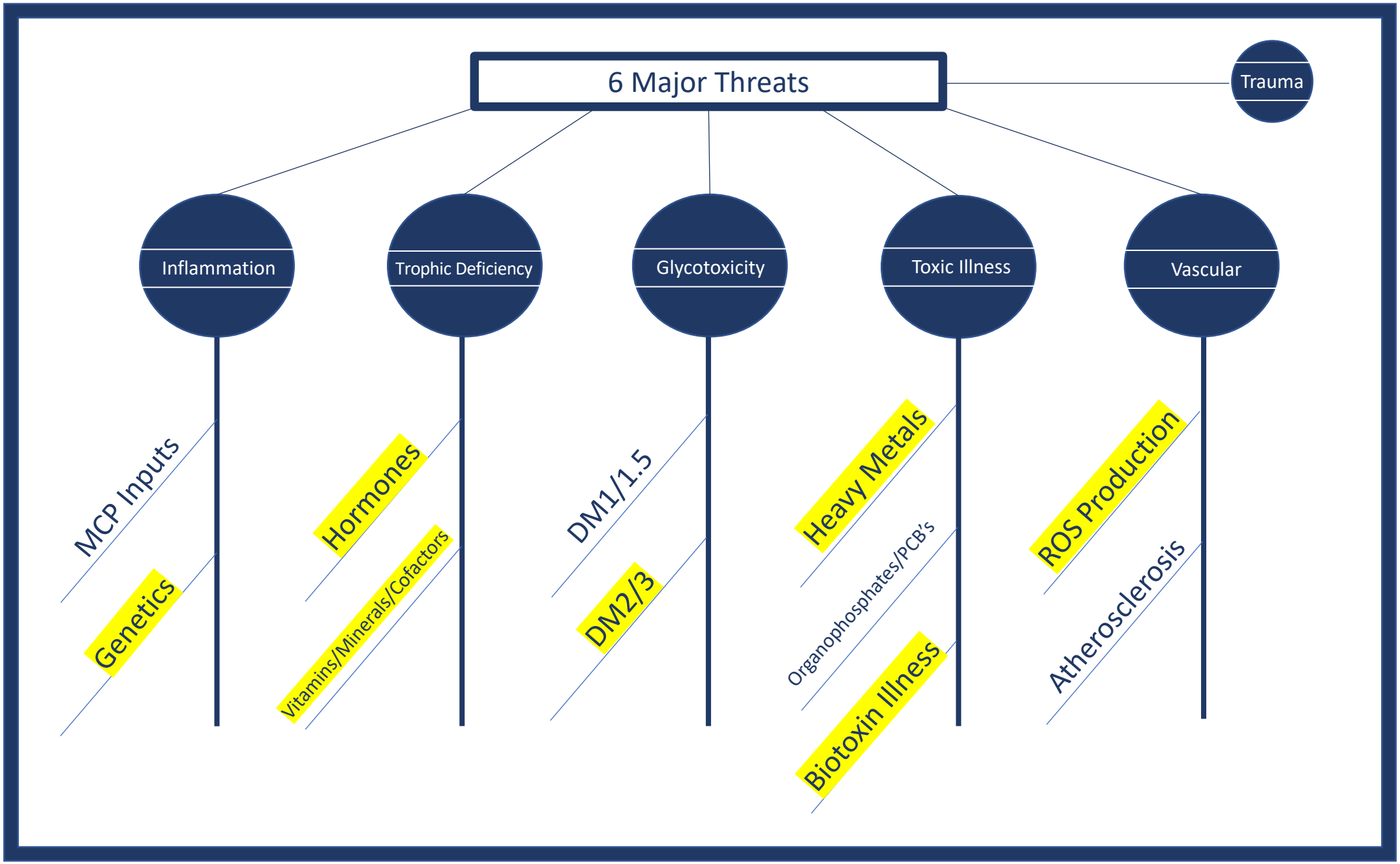
Species	SE/mg	
Alternaria alternata	30	
Acremonium strictum	4	
Aspergillus ustus	17	
Cladosporium cladosporioides1	898	
Cladosporium cladosporioides2	227	*
Cladosporium herbarum	7	
Epicoccum nigrum	13,580	* *
Mucor amphibiorum	87	
Penicillium chrysogenum	169	*
Rhizopus stolonifer	N D	

Sum of Logs	17.7

SE = Spore Equivalents
SE/mg = SE/milligrams of sample
Logs = Logarithms
N D = None Detected

Sample Size	4.9	mg
ERMI Results= (G1-G2)	**39.1**	

(*) 10 fold higher than normal.
(**) 100 fold higher than normal.
(***) 1,000 fold higher than normal.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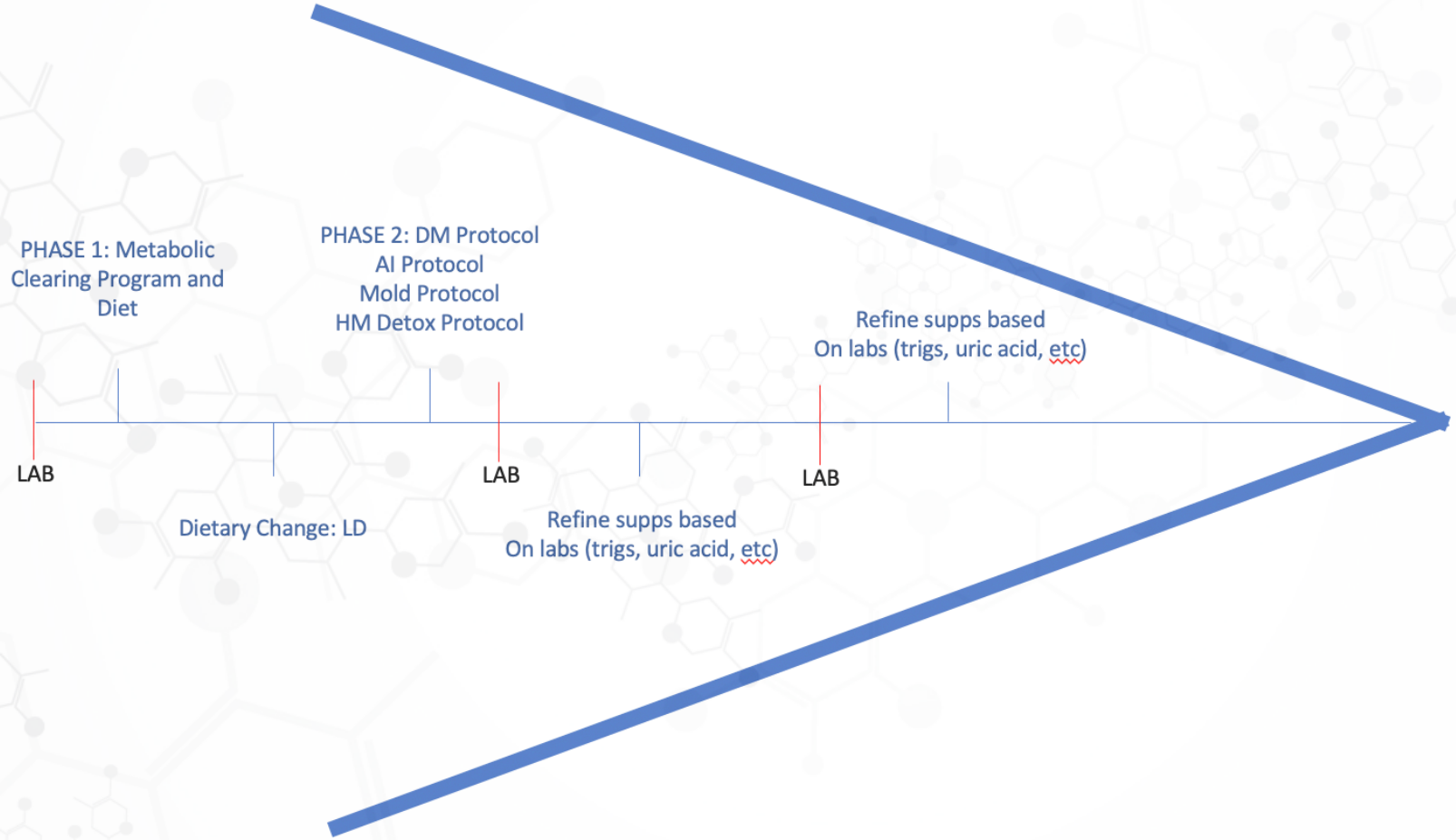
Supplement and Diet Protocols



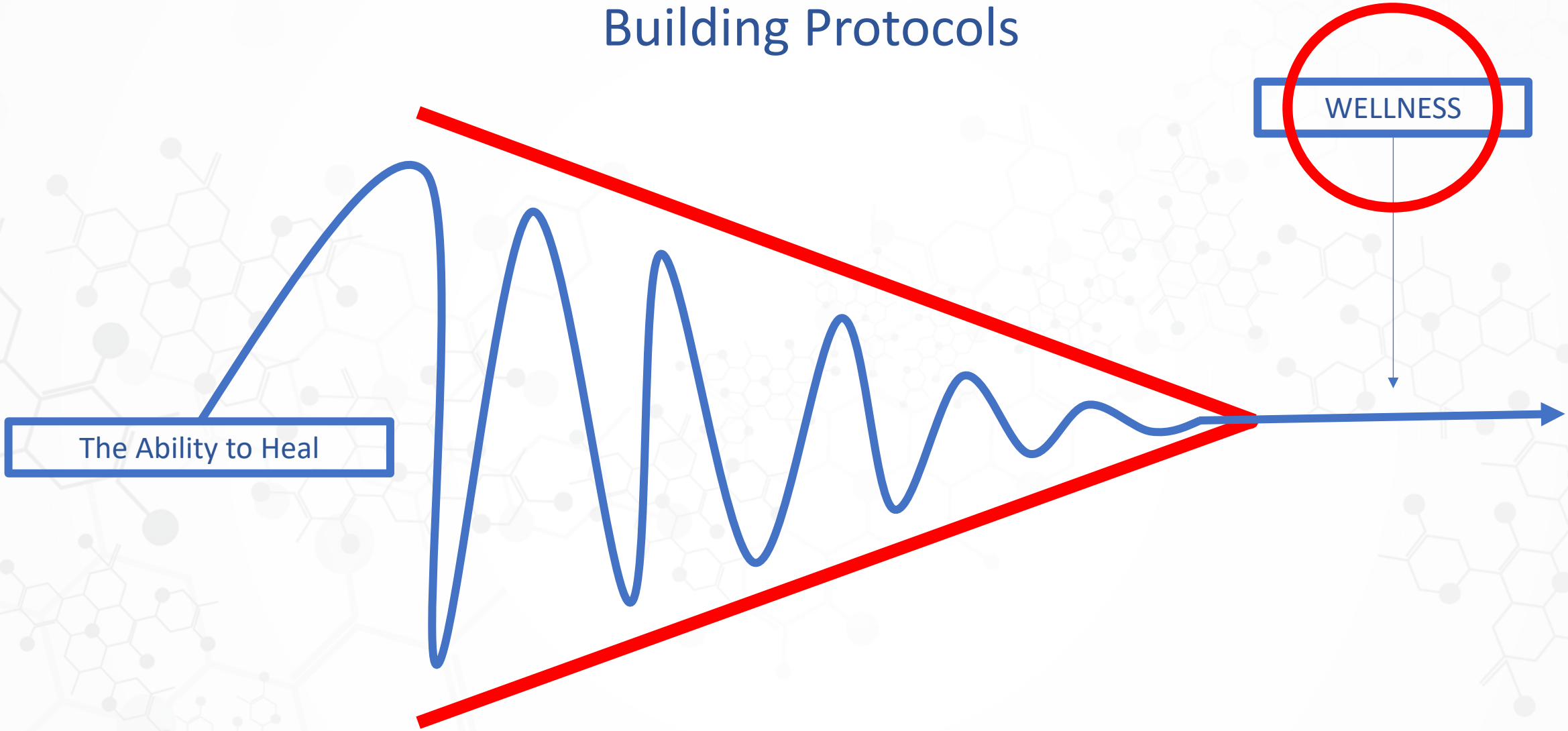
Retest a lab at least every 60 days.

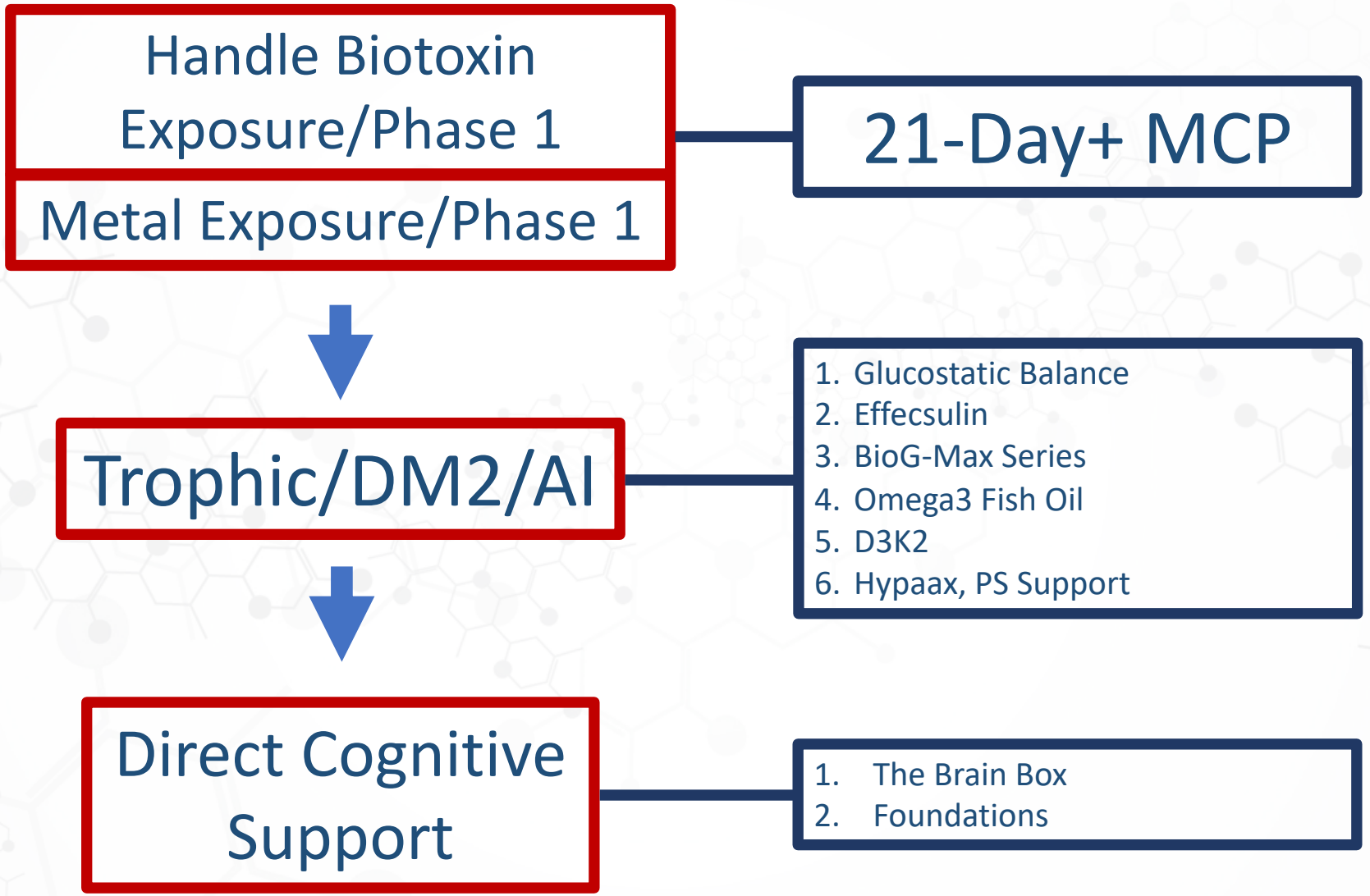
85% of patients will improve with basic structures and healthy eating.

% of problem analysis: this is what the cleanse is for.

General → Fine Tune

Building Protocols




Handle Biotoxin Exposure/Phase 1
Metal Exposure/Phase 1
21-Day+ MCP
Trophic/DM2/AI
1. Glucostatic Balance
2. Effecsulin
3. BioG-Max Series
4. Omega3 Fish Oil
5. D3K2
6. Hypaax, PS Support
Direct Cognitive Support
1. The Brain Box
2. Foundations

The Biogenetix Brain Box

Biogenetix: 833-525-0001

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