

Casual Friday Series

Unlocking the Cognitive Decline Code – Part 2

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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 Condition

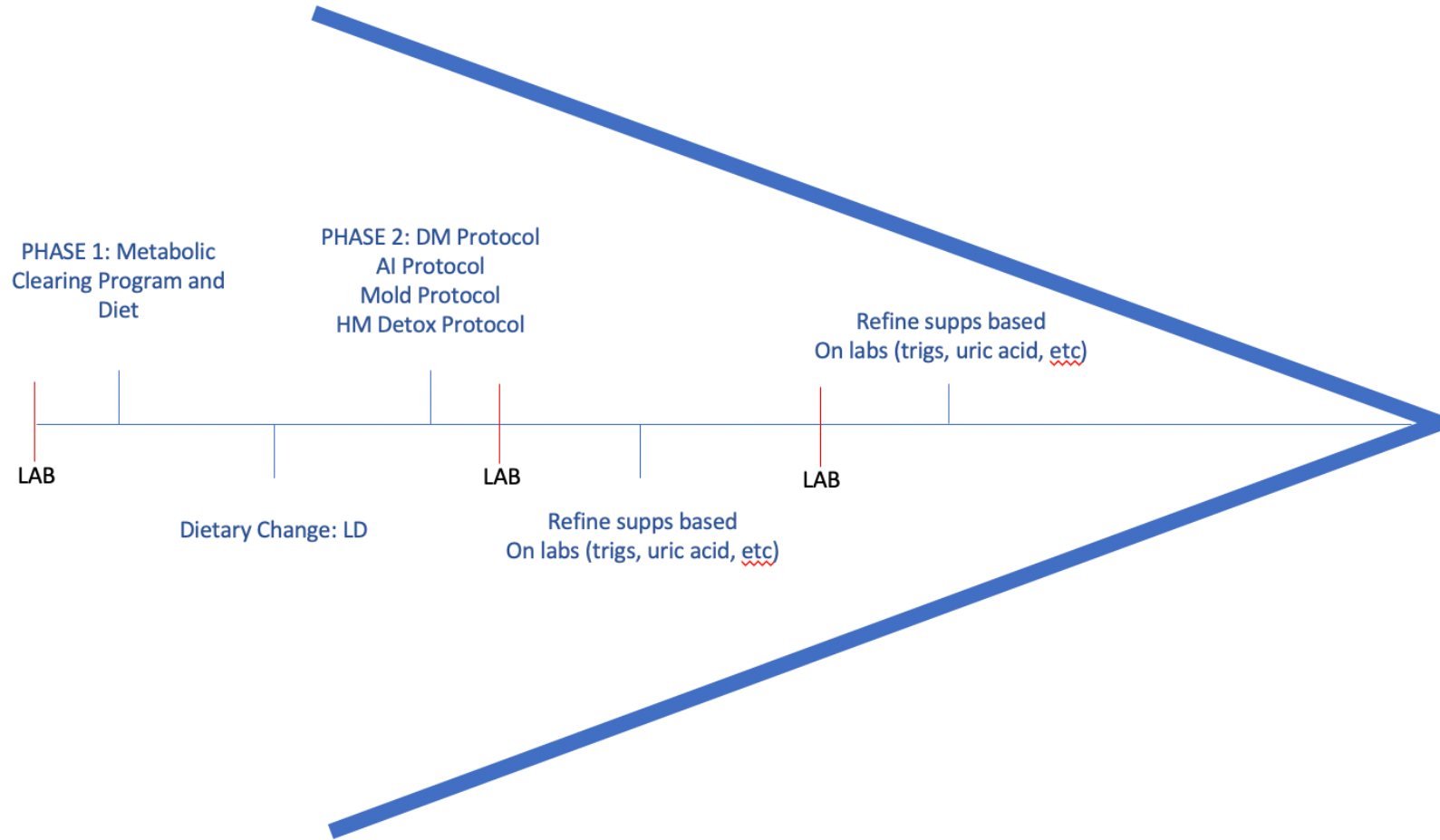




(Lifestyle + Genetics) x Time = Chronic Health IMPROVEMENT



Supplement and Diet Protocols



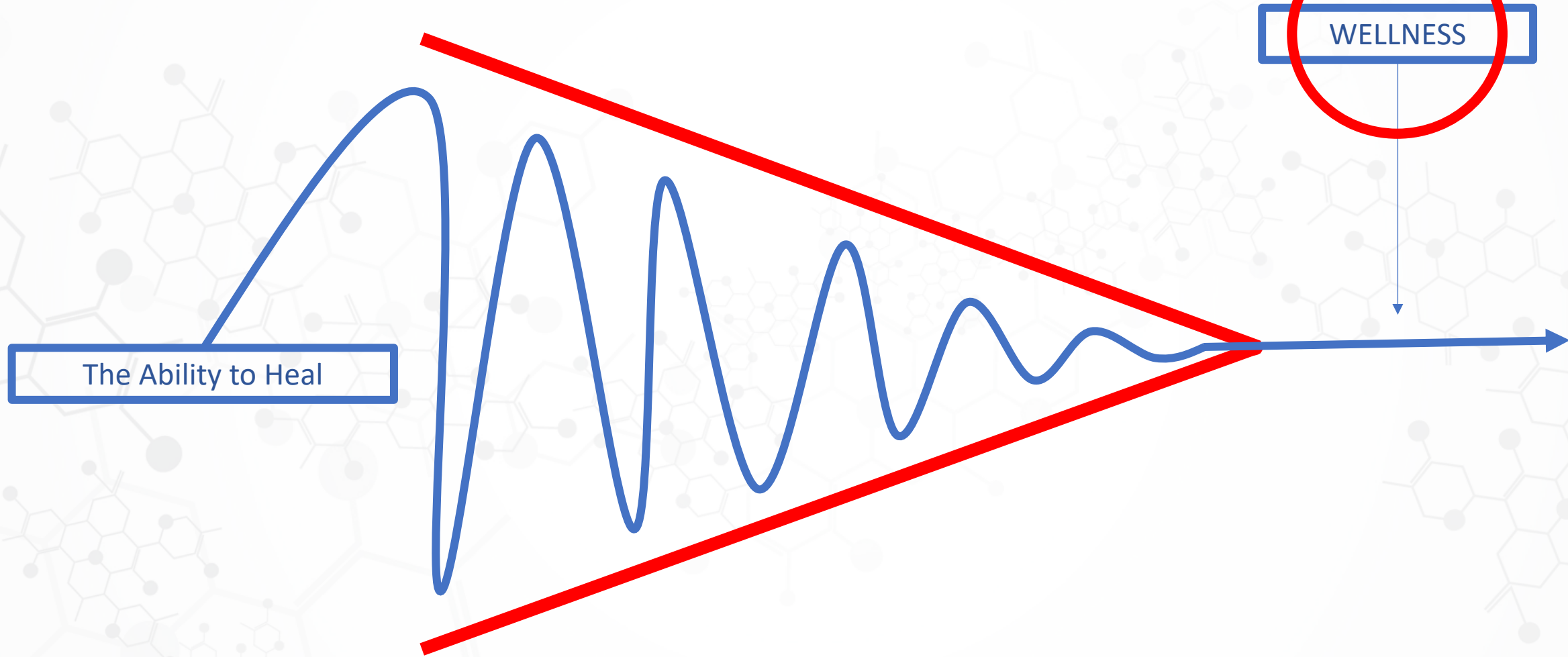
Retest a lab at least every 60 days.

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



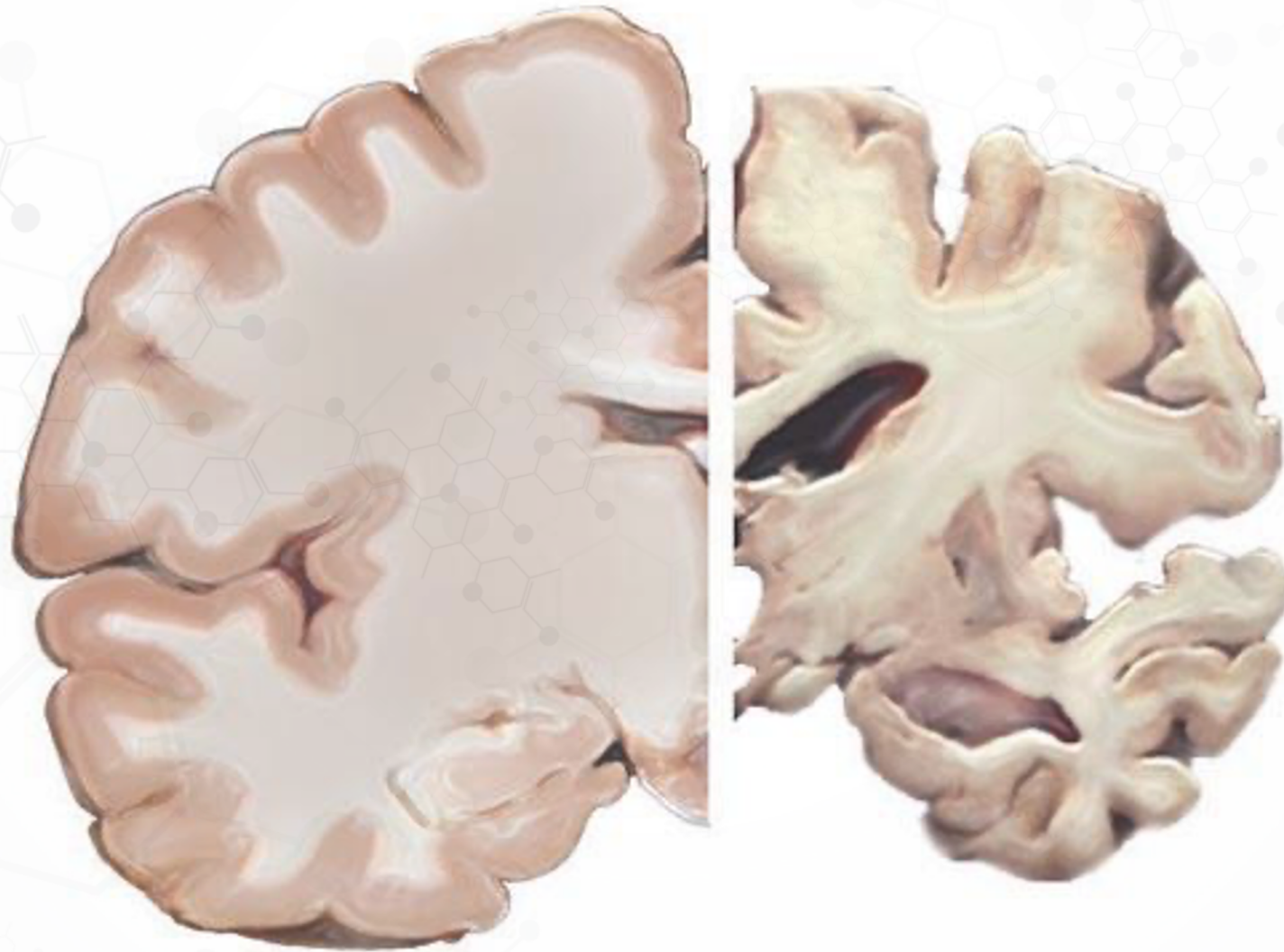
The Ability to Heal

WELLNESS



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/PCBs

Biotoxin Illness

ROS Production

Atherosclerosis



Diagnostic Overlay

Is there a Problem

NeuroQuant MRI

VCS

CNS Vital Signs

What is the Problem

Blood Chemistry

Hormone Panel

Stool

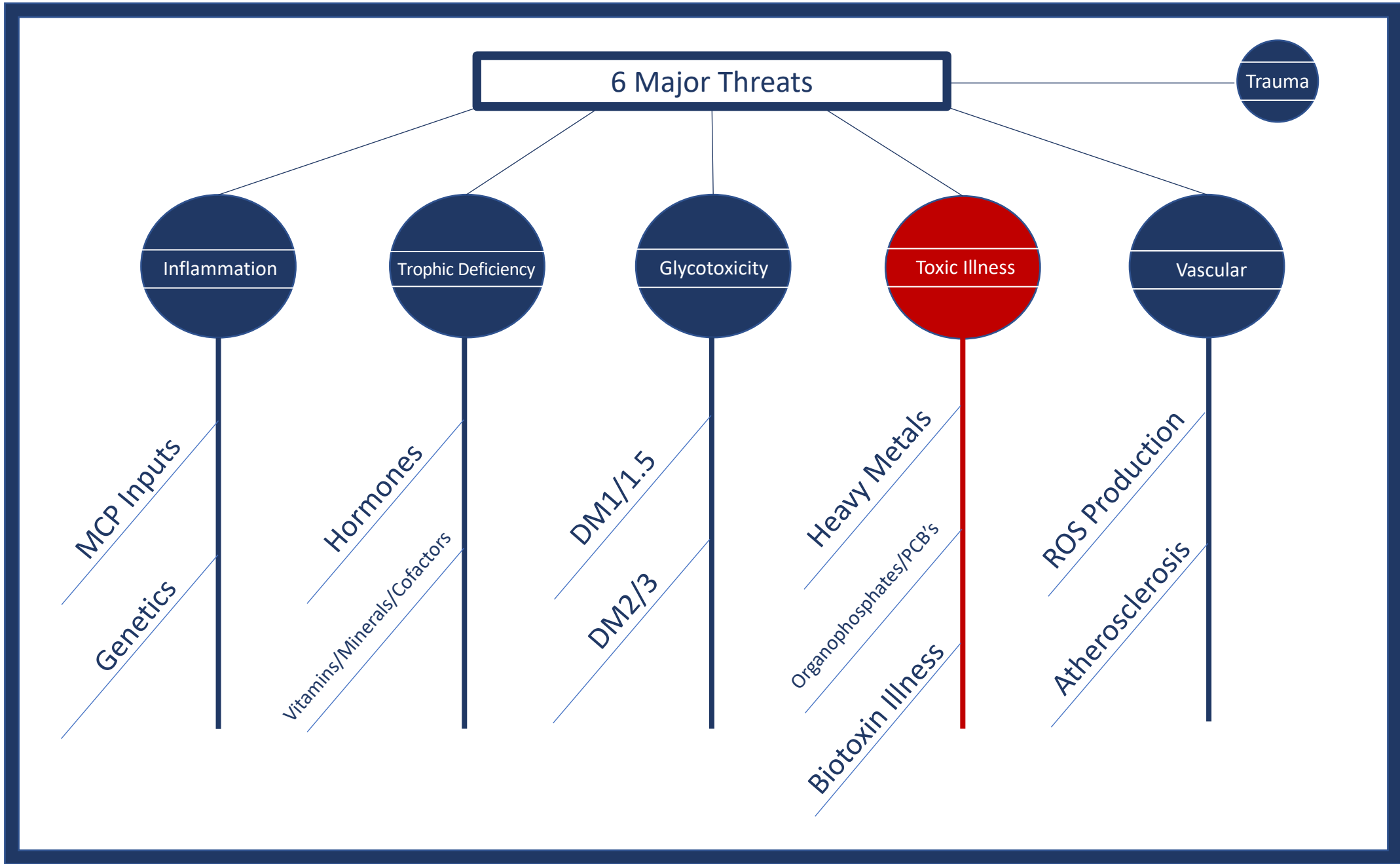
Viral Screen

ToxPanels

ERMI

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





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Heavy Metals Exposure and Alzheimer's Disease and Related Dementias

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Older adults are poised to experience lead-, cadmium-, and manganese-related accelerated declines in cognition as they age. Given the widespread and global exposure to lead, cadmium, and manganese, even small increases in the risks of AD and related dementias would have a major population impact on the burden on disease. Exposure management should be considered to reduce the risks of AD and related dementias that may be attributable to exposure to lead, cadmium, or manganese. Modifying exposure levels to the known neurotoxicants and suspected AD and related dementia risk factors, lead, cadmium and manganese, should be a public health priority to prevent disease.



Fig. 2.

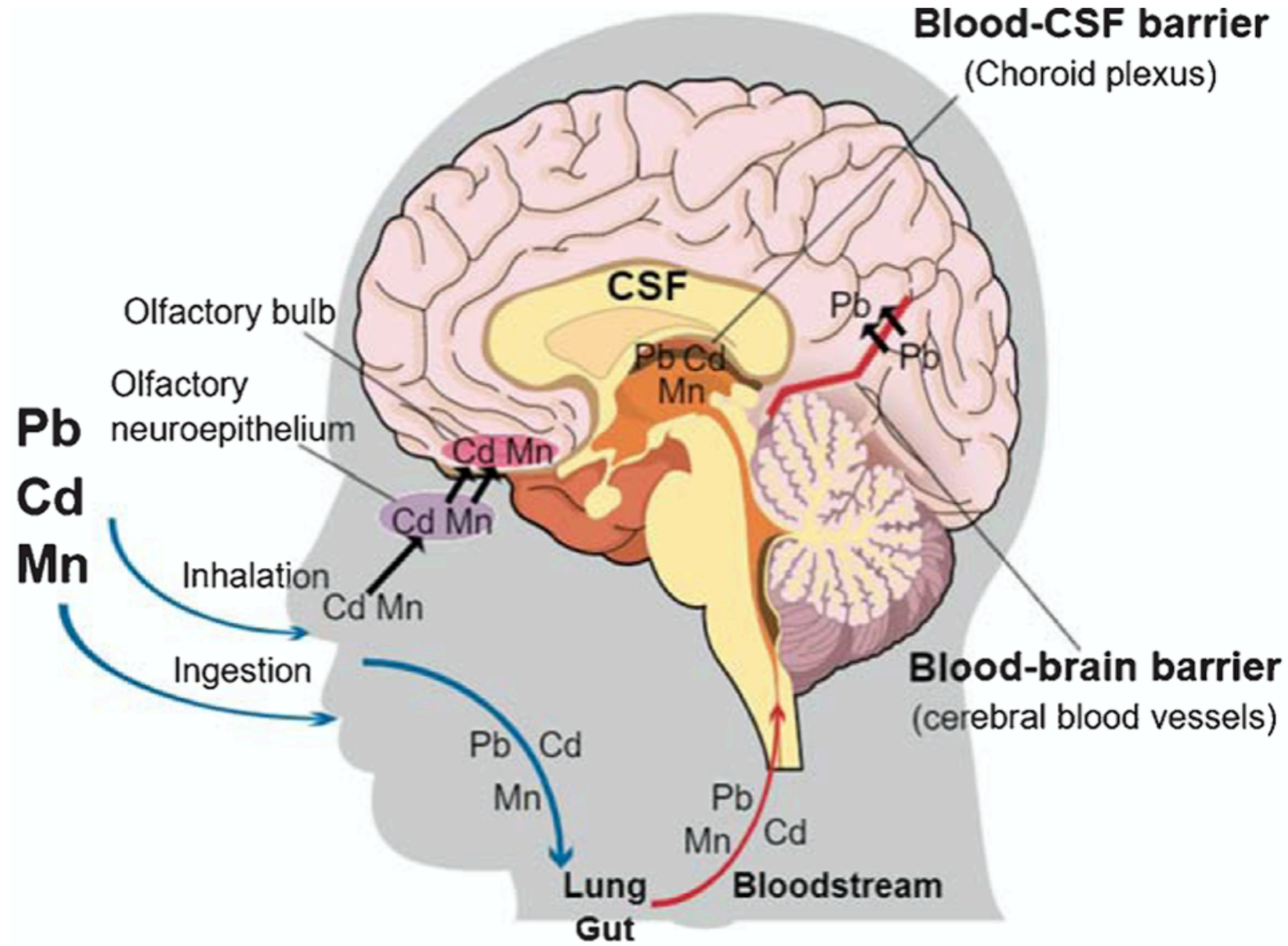
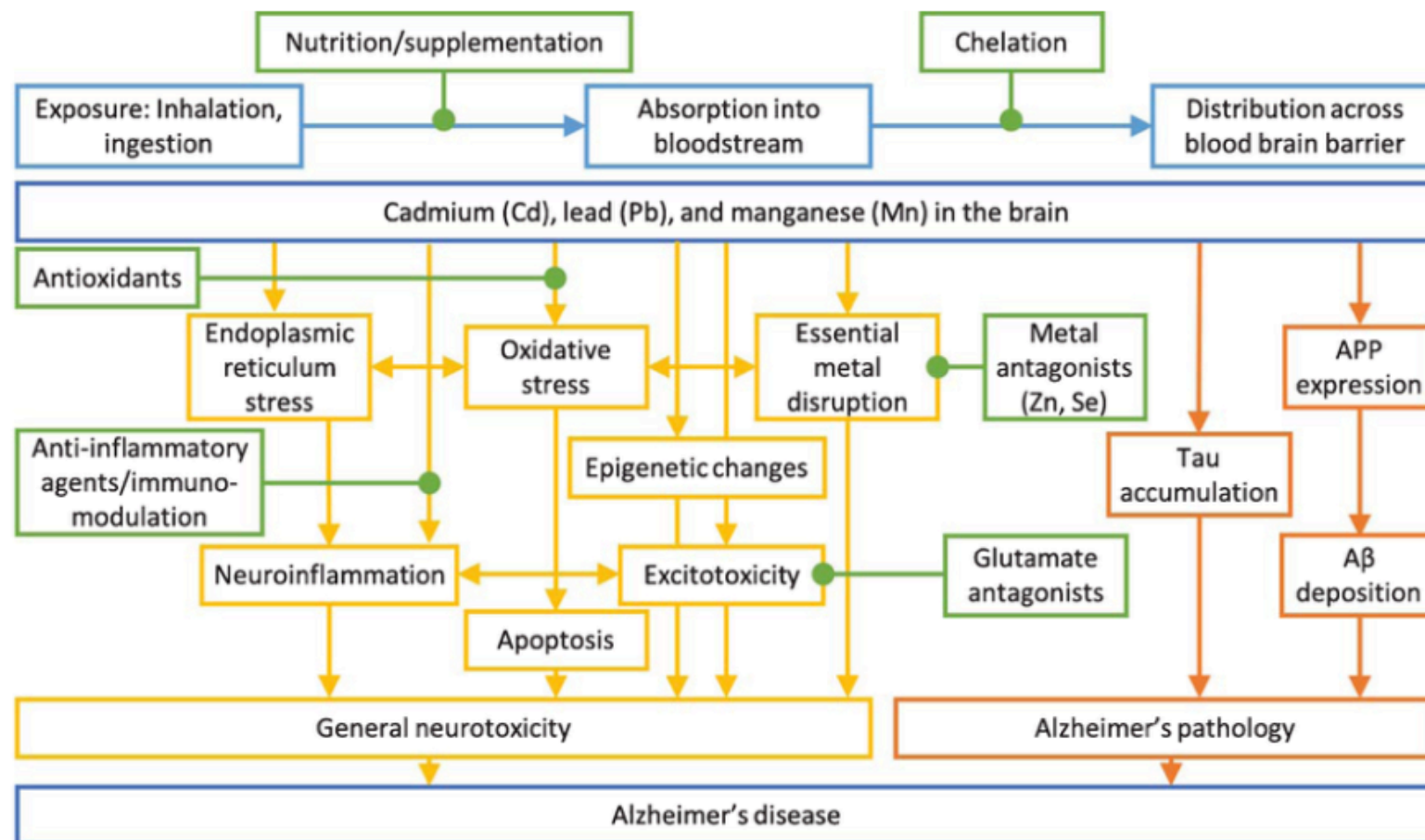


Fig. 3.



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Mechanisms of general neurotoxicity action (yellow) and Alzheimer's disease specific toxicity (orange) of cadmium, lead, and manganese on Alzheimer's disease. Possible intervention options (green) and exposure routes and body distribution (light blue) are highlighted. Adapted from [223].



Rethinking the Dental Amalgam Dilemma: An Integrated Toxicological Approach

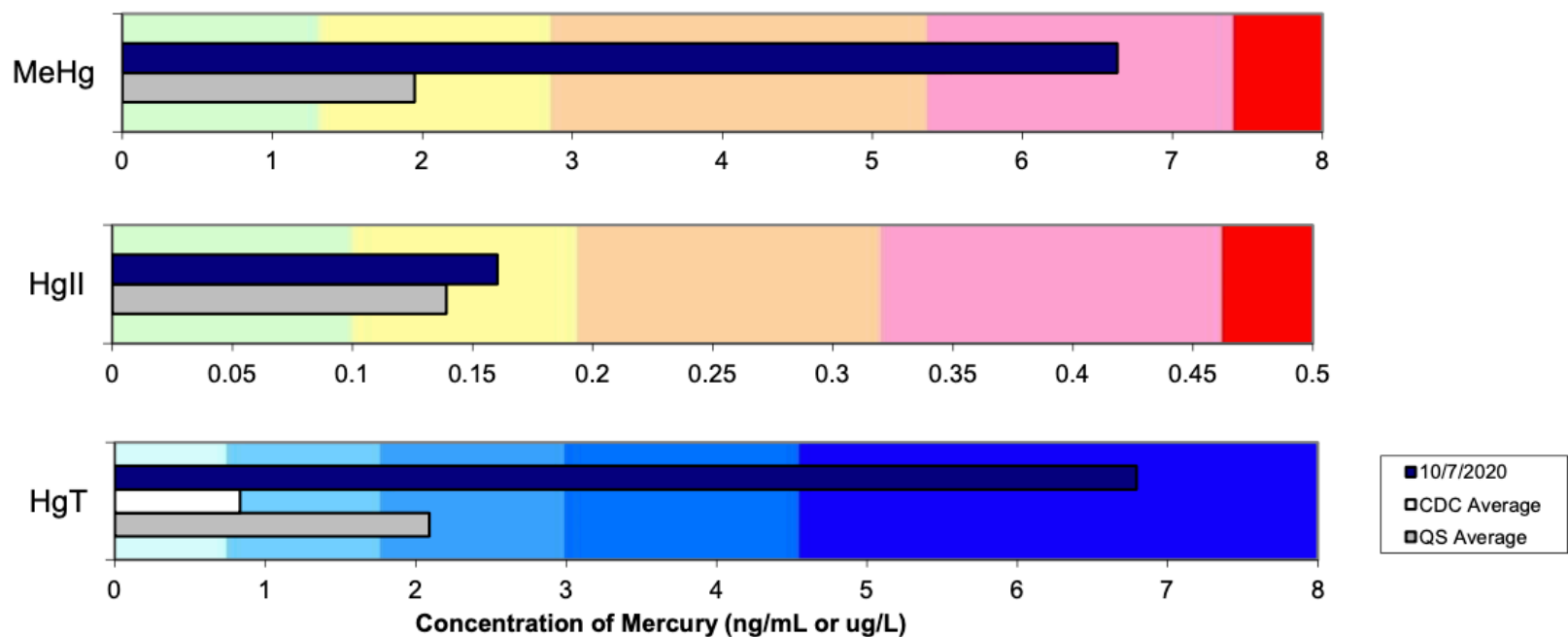
[Hector Jirau-Colón](#),^{1,2} [Leonardo González-Parrilla](#),^{1,2} [Jorge Martínez-Jiménez](#),^{1,2} [Waldemar Adam](#),³ and [Braulio Jiménez-Velez](#)^{1,2,*}

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associated with mercury exposure constitutes a serious health burden, which adds constraints and limits lifespan. Indeed, recent studies have revealed an association of dental amalgams with Alzheimer and Parkinson disease. Many genes (GCLC, MT1M, MT4, ATP7B, and BDNF, currently used as biomarkers) respond to mercury exposure, which either enhances mercury excretion or accumulation. Therefore, relevant individual polymorphism in mercury-responsive genes can alter its availability, bioaccumulation in specific tissues and, hence, its toxicity.



Blood Mercury Comparison



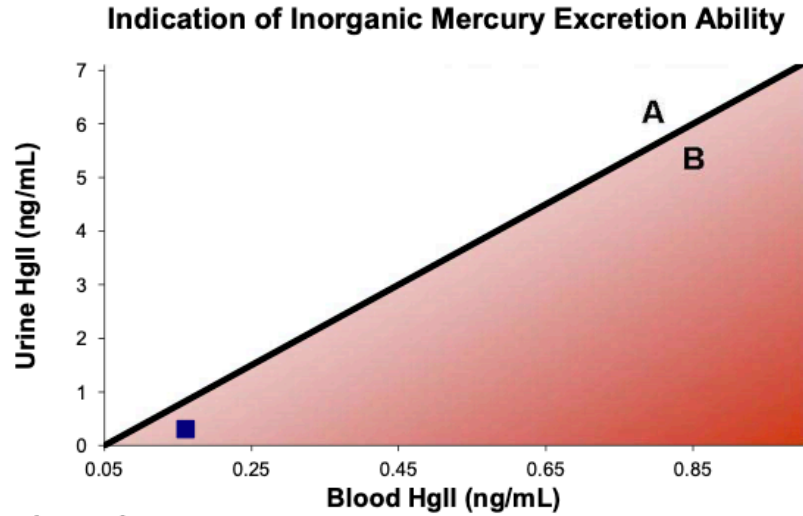
	Results (ng/mL)			Reference Ranges						
	10/7/2020	NA	% Change	QS n=1011; CDC n=1928		Percentile				
				Source	Range	Average	50th	75th	90th	95th
Methylmercury— MeHg	6.63	NA	NA	QS	<0.003 to 23.3	1.95	1.2	2.9	5.4	7.4
Inorganic Mercury— HgII	0.160	NA	NA	QS	<0.007 to 1.75	0.139	0.10	0.19	0.32	0.46
Sum— HgT	6.79	NA	NA	CDC	0.038 to 9.96	0.833	0.7	1.7	3	4.6

Blood Reference Values: Quicksilver Scientific (QS) Data represents 1011 males and females that have utilized our testing. CDC data represents 1928 females, ages 16 to 49. QS blood Hg concentrations are higher than CDC because QS analyzes blood a population that already suspects mercury toxicity.

Data and Analysis Information: Mercury speciation was performed at Quicksilver Scientific, and all values are in concentrations of ng Hg per mL of blood



Urine Results

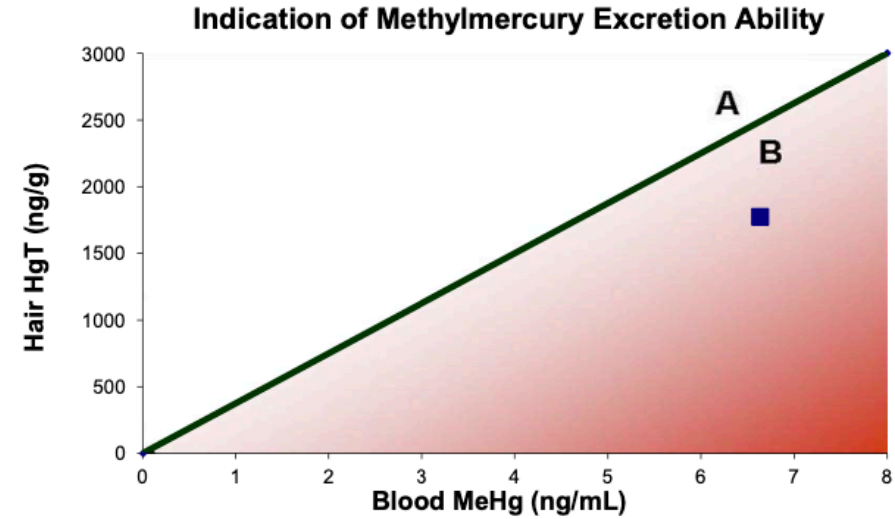


Legend

A) Average Excretion: Mercury output is average or above average when at a ratio of at least 375:1 HgT in hair to MeHg in blood and 6.9:1 HgT in urine to HgII in blood.

B) Below Average Excretion: Mercury output is below average when the tissue Hg comparisons are below ratios mentioned above (red area)

Hair Results



	Urine Results (ng/mL)			Hair (ng/g)
	10/7/2020	NA	%Change	10/6/2020
Methylmercury— MeHg	0.009	NA	<u>NA</u>	NA
Inorganic Mercury— HgII	0.306	NA	<u>NA</u>	NA
Sum— HgT	0.315	NA	<u>NA</u>	1774



Potentially Toxic Elements

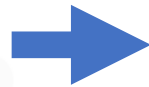
Percentile Rank by Quintile										
Element	10/7/2020	NA	Range	Units	20	40	60	80	100	Percentile
Antimony	8.6	NA	<7.5	µg/L						99%
Arsenic	3.4	NA	<5.0	µg/L						64%
Cadmium	0.4 B	NA	<0.84	µg/L						60%
Cobalt	0.2 B	NA	<5.0	µg/L						41%
Lead	1.17	NA	<2.6	µg/dL						48%
Mercury	6.5	NA	<6.0	µg/L						83%
Silver	< 0.1	NA	<2.6	µg/L						NA
Strontium	21	NA	<50	µg/L						47%

Whole Blood Element Ratios:

Element	10/7/2020	NA	Range	Units	20	40	60	80	100	Percentile
Ca/Mg Ratio	1.53	NA	1.20-1.99	NA						40%
Cu/Zn Ratio	0.15	NA	0.09-0.21	NA						53%



Toxic Exposure



Anti-Trophic Signaling

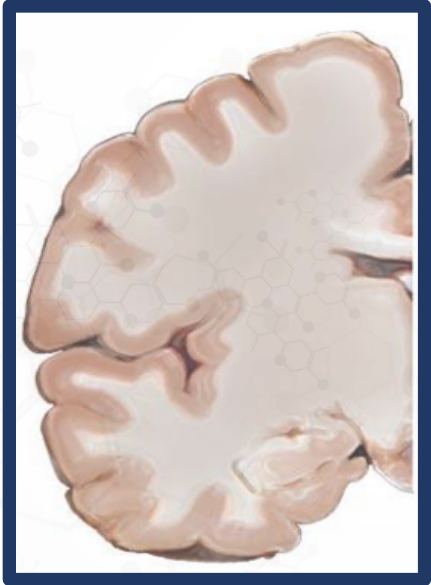



( = Promotes)





Trophic
Signaling



( = Promotes)



The Biogenetix Brain Box



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