

Brain Recovery Protocol

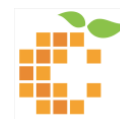
Lab Ordering Sheet:

When you order labs online through these affiliate links, proceeds go to support the work of The NutriScape Project. Thank you for your support!

Online Ordering: The affiliate links in blue will connect you with a web service that allows you to order your tests online, visit a local lab, and get your results online.

Insurance: You can submit charges directly to your insurance for reimbursement using superbill forms you can request by calling [1-800-539-6119](tel:1-800-539-6119) after your order is complete.

Test	Description	Cost
NMR LipoProfile, Homocysteine, C-Reactive Protein Cardiac plus Comprehensive Metabolic Profile - 14 tests, Lipid Profile, HgA1c	NMR LipoProfile, Homocysteine, C-Reactive Protein Cardiac plus Comprehensive Metabolic Profile - 14 tests, Lipid Profile, Hemoglobin A1c	\$235
FOR MEN & WOMEN: Hormone #1 Baseline Blood Test Panel for Men	Testosterone Total & Free, Insulin, Estradiol, Follicle-stimulating Hormone and Luteinizing Hormone, DHEAs, TSH	\$209
WOMEN ONLY: Progesterone	Progesterone	\$43
Heavy Metals Profile II Blood Test	Arsenic, Lead, Mercury, and Cadmium	\$228
Thyroid Antibodies Blood Test	Thyroid Peroxidase Antibodies and Thyroid Antithyroglobulin Ab	\$80
Thyroid #2 Panel with Reverse T3	Thyroid Stimulating Hormone, T4, T3, Free Thyroxine (T4) Index, Reverse T3	\$148
Pregnenolone Blood Test	Pregnenolone, Mass Spectrometry	\$99
Cortisol Morning Blood Test	Cortisol	\$38
NutrEval FMV Comprehensive Nutrient Metabolism Testing	Antioxidants, B Vitamins, Digestive Support, Essential Fatty Acids, Minerals, Metabolic Analysis Profile, Amino Acids Analysis, Essential & Metabolic Fatty Acids Analysis, Elemental Analysis, Packed Erythrocytes, Oxidative Stress	\$579
GI Effects Stool Profile	GI Effects Comprehensive Stool Profile	\$507
Intestinal Permeability Urine Test	Markers of Intestinal Permeability	\$199
Nebula Genomics	Tests for oral pathogens: <i>P. gingivalis</i> , <i>T. denticola</i> , etc. Tests for the APOE4 Gene	\$99
Envirobiomics.com Micometrics.com	ERMI test- Initial Test for 11 Mold Pathogens (May need HERTSMI- 2 Tests for 5 pathogens after you have remediated mold. \$130)	\$ 240



Brain Recovery Labs

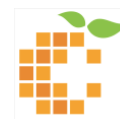
Adapted from [The End of Alzheimer's](#), by Dale Bredeesen, 2020 (Affiliate link), and other resources.

Target Lab Values

CRITICAL TESTS	TARGET VALUES	COMMENTS	Lab Order	Cost	Test	What's on test
Standard Blood Tests						
Vitamin D	50– 80 ng/ mL		Vitamin D (On Thyroid)			
BUN Creatinine	<20 mg/ dL <1.0 mg/ dL		Homocysteine CRP,hs Cholesterol, HDL LDL particle number. VLDL Triglycerides Ratio of HDL cholesterol to total. The A1c Glucose Kidney Profile BUN Creatinine	\$235	NMR LipoProfile, Homoecysteine, C-Reactive Protein Cardiac plus Comprehensive Metabolic Profile - 14 tests, Lipid Profile, Hemoglobin A1c	NMR LipoProfile, Homoecysteine, C-Reactive Protein Cardiac plus Comprehensive Metabolic Profile - 14 tests, Lipid Profile, Hemoglobin A1c
AST ALT	<25 U/ L <25 U/ L		Bun/Cr (eGFR)			
Total cholesterol HDL cholesterol Triglycerides TG to HDL ratio	150– 200 mg/ dL >50 mg/ dL <150 mg/ dL <1.1		Sodium Potassium Chloride CO2 Calcium			
A/ G ratio (albumin to globulin ratio) Albumin	>_1.8:1 4.5– 5.4 g/ dL	Markers of inflammation, liver health	Protein, Total Albumin Globulin, Total Albumin/Globulin Ratio Bilirubin, Total Alkaline Phos. AST or SGOT) ALT or SGPT)			
LDL- P Small dense LDL Oxidized LDL	700– 1200 nM <28 mg/ dL <60 ng/ mL	LDL- P is LDL particle number				
hs- CRP	<0.9 mg/ dL	Systemic inflammation				
Homocysteine Hemoglobin A1c Fasting glucose	<_7µmol/ L 3.0– 5.0 µU/ mL* 70– 90 mg/ dL	Reflects methylation, inflammation, and detox Glycotoxicity and insulin resistance markers				



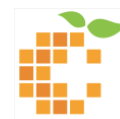
Hormones						
Fasting insulin HOMA- IR	4.0– 5.3% <1.2	HOMA-IR Calculator	Andropause Panel: Testosterone Total & Free, Insulin, Estradiol, Follicle-stimulating Hormone and Luteinizing Hormone, Dehydroepiandrosterone Sulfate, Thyroid Stimulating Hormone	\$209	Hormone #1 Baseline Blood Test Panel for Men	Testosterone Total & Free, Insulin, Estradiol, Follicle-stimulating Hormone and Luteinizing Hormone, Dehydroepiandrosterone Sulfate, Thyroid Stimulating Hormone
DHEA- S (women) DHEA- S (men)	100– 380 mcg/ dL 150– 500 mcg/ dL					
Testosterone- Free testosterone	500– 1000 ng/ dL 18– 26 pg/ ml	Men; age dependent				
Cortisol (AM)	10– 18 mcg/ dL		Cortisol (not on Men's)	\$38	Cortisol Blood Test	Cortisol
Estradiol Progesterone	50– 250 pg/ mL 1– 20 ng/ dL (P)	Women; age dependent Trophic support	Progesterone	\$43 for Women	Progesterone	Progesterone
Free T3 Free T4 Reverse T3 TSH Free T3 to reverse T3	3.2– 4.2 pg/ mL 1.3– 1.8 ng/ dL <20 ng/ dL <2.0 mIU/ L >0.02:1 Negative	mIU/ L = µIU/ mL	Thyroid #2 Essential: TSH Free T3, Reverse T3 T4	\$148	Thyroid #2 Essential Blood Test Panel	Glucose, BUN, Creatinine, BUN/Creatinine Ratio, Total Protein, Glomerular Filtration (eGFR), Total Globulin, Albumin, Total Bilirubin, Albumin/Globulin Ratio, Total Cholesterol/HDL Ratio, CBC, 25 Hydroxy Vit D, B12, Folate, Magnesium
Anti- thyroglobulin antibodies Anti- TPO	Negative		Thyroid Antibodies	\$80	Thyroid Antibodies Blood Test	Thyroid Peroxidase (TPO) Antibodies, Thyroid Antithyroglobulin Antibody (TAA), and Reverse T3 Blood tests.
Pregnenolone	100– 250 ng/ dL	Age dependent	Pregnenalone	\$99	Pregnenolone Blood Test	Pregnenolone, Mass Spect.



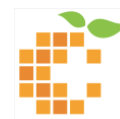
NutrEval								
Vitamin B6 Vitamin B9 (folate) Vitamin B12	25– 50 mcg/ L (PP) 10– 25 ng/ mL 500– 1500 pg/ mL	Improve methylation and reduce homocysteine	NutrEval	\$579	NutrEval FMV Comprehensive Nutrient Metabolism Testing	Antioxidants, B Vitamins, Digestive Support, Essential Fatty Acids, Minerals, Metabolic Analysis Profile, Amino Acids Analysis, Essential & Metabolic Fatty Acids Analysis, Elemental Analysis, Packed Erythrocytes, Oxidative Stress		
Vitamin C Vitamin E	1.3– 2.5 mg/ dL 12– 20 mg/ L							
Omega- 6 to omega- 3 ratio	1:1 to 4:1 (beware that <0.5:1 risk for bleeding)	Inflammatory ratio						
Omega- 3 index	>_10% (ApoE4+) 8– 10% (ApoE4-)	Inflammatory index						
AA to EPA ratio (arachidonic acid to eicosapentaenoic acid ratio)	<3:1	Inflammation						
RBC- magnesium	5.2– 6.5 mg/ dL	Preferable to serum magnesium						
Copper Zinc	90– 110 mcg/ dL 90– 110 mcg/ dL							
Selenium	110– 150 ng/ mL	Trophic support						
Potassium	4.5– 5.5 mEq/ L	Trophic support						
CoQ10	1.1– 2.2 mcg/ mL	Affected by cholesterol level						
Glutathione	>250 mcg/ mL (>814 μM)	Major antioxidant and detoxicant						
Copper to zinc ratio	0.8– 1.2:1	Higher ratios associated with dementia						
Mercury Lead Arsenic Cadmium	<5 mcg/ L <2 mcg/ dL <7 mcg/ L <2.5 mcg/ dL	Heavy metals						Heavy Metals II Blood test
Stool analysis	No pathogens or dysbiosis						\$507	GI Effects Comprehensive Stool Profile-1 Day Stool Test
Leaky gut, leaky blood- brain barrier, gluten sensitivity, autoantibodies	Negative		GDx Intestinal Permeability	\$199	Intestinal Permeability Urine Test			



Other Specialty Lab Tests						
Glyphosate (urine)	<1.0 mcg/ g creatinine	Herbicide (Recent exposure)		\$125	Glyphosate (urine)	https://hrilabs.org/product/glyphosate-test-urine/
Mercury Tri- Test	<50th percentile	Hair, blood, urine		\$350	Mercury Tri- Test	
ERMI test- first test for 11 types of mold	<2	Mold index from building		\$240	ERMI test	Envirobiomics.com Micometrics.com
HERTSMI- 2nd test after remediation	<11	Index of most toxic molds		\$130	HERTSMI- 2 test	Envirobiomics.com Micometrics.com
Urinary mycotoxins	Negative	May include contributions from inhalation, ingestion, and infection		\$325	Urinary mycotoxins	https://www.my-medlab.com/great-plains-tests/gpl-mycotox
ApoE4 status Oral Pathogens	Negative for oral pathogens	<i>P. gingivalis</i> , <i>T. denticola</i> , etc.		\$99 or \$299	Nebula Genomics	



Interventions						
Body mass index (BMI) Women: Waist/Hip ratio Men: Waist/Hip ratio	18.5– 25 <0.85 <0.9	Weight (lbs) μ 703/ height (inches) ²			0	Body mass index (BMI) Women: Waist/Hip ratio Men: Waist/Hip ratio
Spouse Questionnaire					0	https://www2.gov.bc.ca/assets/gov/health/practitioner-pro/bc-guidelines/cogimp-alzheimer-questionnaire.pdf https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3207359/
VCS (visual contrast sensitivity)	Pass	Failure associated with biotoxin exposure			\$10	https://www.vctest.com/
MoCA (Montreal Cognitive Assessment)	28– 30					https://www.mocatest.org/preview-family-brochure
CNS Vital Signs					\$100	https://www.cnsvs.com/
Nocturnal oxygen saturation (SpO ₂)	96– 98%	Affected by living at high altitude			\$179	
Neuroquant analysis for mold- This is a software analysis of existing MRI's that are compatible.					\$25	https://www.survivingmold.com/store1/online-neuroquant-test
From: "The End of Alzheimer's Program: The First Protocol to Enhance Cognition and Reverse Decline at Any Age"						



Other Medical Labs						
MARCoNS	Negative	MARCoNS is found in many patients with mold exposure, chronic lyme disease and biotoxin illnesses. Not common in pts with intact immune systems.				<p>MARCoNS</p> <p>https://thegutinstitute.com/products/marcons-test-microbiologydx</p>
Antibodies to tick- borne pathogens	Negative	<i>Borrelia, Babesia, Bartonella, Ehrlichia, Anaplasma</i>			\$200	
Antibodies to Herpes family viruses	Negative	HSV- 1, HSV- 2, HHV- 6, VZV, EBV, CMV				
Organic toxins (urine)	Negative	Benzene, toluene, etc.				
C4a TGF- β1 MMP- 9 MSH	<2830 ng/ mL <2380 pg/ mL 85– 332 ng/ mL 35– 81 pg/ mL	Associated with inflammatory response				
CD57	60– 360 cells/μ L	Reduced with Lyme				
Peak alpha frequency on quantitative EEG	8.9– 11 Hz	Slows with cognitive decline; useful for following progress				
P300b on evoked response testing	<450 ms	Delayed with cognitive decline; useful for following progress				
ImmuKnow (CD4 function, indicated by ATP production)	>_525 ng/ mL	Indicates function of helper cells of the cellular arm of the adaptive immune system. Measures the ATP response of stimulated CD4+ peripheral blood lymphocytes				
AHI (apnea hypopnea index)	<5 events per hour	>5 indicates sleep apnea				