## **TEST IDEAS FOR COMMON SYMPTOMS**

The following is a list of suggested "starting point" tests to consider for common symptoms. An expanded list of markers included in different panels is included at the end of the document:

Symptom	Lab Tests to Consider
Very low energy/fatigue all the time Most common root causes are anemia, simmering infections, blood sugar control issues, hypothyroid, and very high or very low cortisol.	CBC Panel CMP Panel Serum B12 Iron Panel Full Thyroid Panel Perhaps also multi-sample urinary cortisol HbA1c, fasting insulin Sleep study (if suspected sleep apnea)
Poor circulation (cold, numbness, tingling)	CBC Panel CMP Panel Serum B12 Serum B6 RBC Folate Ferritin Homocysteine Iron Panel Full Thyroid Panel Multi-sample urinary cortisol
Frequent illness	Vitamin A Vitamin D RBC zinc CBC panel
Hypertension or other chronic cardiovascular issue	RBC magnesium  CMP panel  CoQ10  Homocysteine  CRP  Fibrinogen  Cardio IQ lipid panel or NMR  HbA1c, fasting insulin.  Multi-sample, urinary sex + adrenal hormones  (e.g. DUTCH)



# **TEST IDEAS FOR COMMON SYMPTOMS**

Symptom	Lab Tests to Consider
Depression	Vitamin D  Multi-sample urinary cortisol profile Full thyroid panel Omega-3 index Fatty acids profile Food sensitivity panel RBC magnesium CRP
Obesity	Full thyroid panel HbA1c, fasting insulin CMP panel Food sensitivity panel Multi-sample Urinary sex + adrenal hormones (e.g. DUTCH), Organic acids test (especially to confirm if/which detoxification pathways are blocked)



# **FUNCTIONAL TESTS & USES**

The following is a list of continuation of common functional tests and what they can be used for:

Functional Test Type	Its Use	Test Name
Comprehensive stool tests	Assess microbial balance/pathogens, digestive function, and inflammatory markers	Genova's GI Effects, Doctor's Data, GI Map, Gut Zoomer
SIBO Breath test	Assess hydrogen & methane over time in multi-sample collections after sugar ingestion	SIBO with Glucose and/or Lactulose Breath Test
Organic Acids test (aka OAT)	assess by-products of various biochemical processes in the urine as reflection of functional nutrient deficiencies and impaired/overloaded pathways	Genova's Organix, NutrEval or Great Plains Laboratory's OAT
Micronutrient Test	Assesses which nutrients when increased could lead to healthier lymphocytes; essentially a functional and cellular test with extrapolation to rest of body	Spectracell or Vibrant America's Micronutrient panel which gives both serum and cellular levels of vitamins, minerals, essential fats or OmegaQuant panel that gives Omega: 3 index and a few specific fatty acid levels



## **FUNCTIONAL TESTS & USES**

The following is a list of common functional tests and what they can be used for:

Functional Test Type	Its Use	Test Name
Hormone Test	Assess a variety of hormone and hormone metabolite levels and balance e.g. cortisol, DHEA, estrogens, melatonin; can be run in saliva, urine, blood	DUTCH multi-sample urinary test unless overt gland failure/disease
Food Allergy/Sensitivity Tests	Assess immune system reactions to food; NONE are fully comprehensive or not vulnerable to false positives/negatives	lgG, lgE, lgA, lgG4, innate e.g. KBMO, Cyrex, Alletesse
Toxicity Test	Assess representative evidence of impaired detoxification and toxins clearance/storage; Urinary glyphosate.	Genova's Urine Toxic Elements (RBC). QuikSilver Mercury Tri-Test. Serum toxins can be quite misleading. Much more extensive panels exist (e.g. Genova's Effects Core) but are quite expensive.
Enhanced Intestinal Permeability	Assess intestinal permeability (aka leaky gut)	Vibrant's Wheat Zoomer includes antibodies to zonulin** and LPS; old school Lactulose/Mannitol test*
Autoimmune Triggers and Mediators	Assess autoimmune activation	Cyrex Array 5 Antibody panel

<sup>\*</sup> https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4047110/

<sup>\*\*</sup> https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6331146/, https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6996528/, https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5569281/



### **EXPANDED PANEL LIST**

### **CBC Panel (with Differentials) includes:**

- WBC
- RBC
- Hemoglobin
- Hematocrit
- MCV
- MCH
- MCHC
- RDW
- Platelets
- Neutrophils (% and absolute)
- Lymphocytes (% and absolute)
- Monocytes (% and absolute)
- Eosinophils (% and absolute)
- Basophils (% and absolute)
- Immature Granulocytes (% and absolute)

### **Iron Panel includes:**

- TIBC (Total Iron-Binding Capacity)
- UIBC (Unsaturated Iron-Binding Capacity)
- Iron Saturation
- Iron, Serum
- Ferritin

### **Full Thyroid Panel includes:**

- TSH (Thyroid Stimulating Hormone)
- Free T4
- Total T4
- Free T3
- Total T3
- Reverse T3
- Thyroid Peroxidase (TPO) Antibody
- Thyroglobulin Antibody

#### **CMP Panel includes:**

- Glucose, Serum
- BUN
- Creatinine
- eGFR
- BUN/Creatinine Ratio
- Sodium, Serum
- Potassium, Serum
- Chloride, Serum
- Carbon Dioxide, Serum
- Calcium, Serum
- Total Protein, Serum
- Albumin, Serum
- Globulin, Serum
- A/G Ratio
- Bilirubin, Total
- Direct Bilirubin
- Alkaline Phosphatase
- AST (SGOT)
- ALT (SGPT)
- GGT

