

## Labs and Pricing

(all lab prices include the follow up review appointment\*)

Organic Acids Test (OAT); \$359 (30 min review)

The organic acid test provides information about the body's biochemical balance by measuring the urine for biomarkers. The 74 metabolites detected in the OAT can indicate vitamin and hormone metabolism, energy cycle function, muscle function, intestinal wall integrity and neurotransmitter metabolites. The OAT can also detect the overgrowth of yeast and bacteria species commonly missed by conventional culture methods.

The OAT reports include: kerb cycle abnormalities, neurotransmitter levels, nutritional deficiencies, antioxidant deficiencies, yeast and Clostridia overgrowth, fatty acid metabolism, oxalate levels, and more.

Clinical Usefulness:

- to understand vitamin and hormone metabolism
- to determine energy production capacity
- to determine intestinal wall integrity
- evaluate muscle function
- performance of the central nervous system
- reveal excessive levels of GI yeast and bacteria
- detect nutritional and antioxidant deficiencies
- determine problems in fatty acid metabolism

IgG Food Allergy Test + Candida; \$279 (30 min review)

IgG (immunoglobulin G) testing is a useful guide for structuring elimination diets in many chronic conditions. Individuals with neurological, gastrointestinal, and movement disorders often suffer from IgG food allergies. These people may continue to eat offending foods unaware of their potential effects. As immunological reactions, IgE food allergy causes the release of histamine, producing an immediate hypersensitivity reaction, in which symptoms appear within minutes or hours. In contrast, food sensitivity is a non-IgE allergy characterized by the measurement of IgG antibodies specific to antigenic food proteins. This IgG food allergy is a delayed hypersensitivity reaction in which symptoms appear anywhere from hours to days after eating the

offending food. The **93 foods tested** in the IgG Food Allergy Test w/ Candida can identify problem food so it can be eliminated from the patient's diet. Elimination of IgG positive foods is necessary to stop food-induced inflammation in the body. Many undesirable symptoms come from eating foods to which we are sensitive. The body's immune system becomes drained from launching a response to foods and leads to many side effects. Food and food-chemical sensitivities remain one of the most under addressed areas of conventional medicine. Food sensitivities have a role in inflammation, weight gain, IBS, headaches, brain fog, fibromyalgia, arthritis, GERD, obesity, metabolic syndrome, ADD/ADHD, autism, cystic fibrosis, rheumatoid arthritis, and epilepsy according to numerous clinical studies.

<b>MEDICAL CONDITIONS WHERE FOOD SENSITIVITIES CAN PLAY A PRIMARY OR SECONDARY ROLE</b>		
<b><u>GASTROINTESTINAL</u></b>	<b><u>NEUROLOGICAL</u></b>	<b><u>MUSCULOSKELETAL</u></b>
<ul style="list-style-type: none"><li>• Irritable Bowel Syndrome</li><li>• Functional Diarrhea</li><li>• GERD</li><li>• Crohn's Disease</li><li>• Ulcerative Colitis</li><li>• Microscopic Colitis</li><li>• Lymphocytic Colitis</li><li>• Cyclic Vomiting Syndrome</li></ul>	<ul style="list-style-type: none"><li>• Migraine</li><li>• ADD/ADHD</li><li>• Autism Spectrum Disorders</li><li>• Epilepsy</li><li>• Depression</li><li>• Insomnia</li><li>• Restless Leg Syndrome</li></ul>	<ul style="list-style-type: none"><li>• Fibromyalgia</li><li>• Inflammatory Arthritis</li></ul>
<b><u>UROLOGICAL</u></b>	<b><u>ENDOCRINE</u></b>	<b><u>DERMATOLOGICAL</u></b>
<ul style="list-style-type: none"><li>• Interstitial Cystitis</li></ul>	<ul style="list-style-type: none"><li>• Obesity</li></ul>	<ul style="list-style-type: none"><li>• Atopic Dermatitis</li><li>• Urticaria</li><li>• Psoriasis</li><li>• Chronic Fatigue Syndrome</li></ul>
		<b><u>GYNECOLOGICAL</u></b>
		<ul style="list-style-type: none"><li>• Polycystic Ovary Syndrome</li></ul>

The Great Plains Laboratory, Inc. has added *Candida* to the IgG Food Allergy Test. *Candida* problems are caused when the benign yeast form of *Candida albicans* mutates to its fungal form. *Candida* can take over sections of the intestinal wall causing numerous symptoms. As it grows out of balance it produces toxins that create holes in the intestinal lining, leading to leaky gut syndrome. After entering the blood, *Candida albicans* causes an inflammatory immune system response. A wide range of disorders have been linked to *Candida* including autism, multiple sclerosis, depression, and chronic fatigue. Use of antibiotics, oral contraceptives, chemotherapy, and anti-inflammatory steroids greatly increase susceptibility to *Candida*.

#### Clinical Usefulness:

- promotes non-invasive food-based therapy
- eliminate allergy triggers
- reduce the burden on the immune system
- reduce gut inflammation
- reduce food cravings
- improve assimilation of nutrients
- reduce food mediated behaviors

#### Hair Toxicity-Mineral Analysis (HTMA) Test; \$139 (30 min review)

A HTMA Test is an analytical test which measures the mineral content of the hair. The sampled hair, obtained by cutting the first inch and one-half of growth closest to the scalp at the nape of the neck, is prepared in a licensed clinical laboratory through a series of chemical and high temperature digestive procedures. Testing is then performed using highly sophisticated detection equipment and methods to achieve the most accurate and precise results.

A HTMA Test assesses your mineral levels and toxic heavy metal levels. Additionally, it reveals how your adrenals and thyroid are functioning. A hair mineral analysis can be used to design part of your custom supplement program.

Trace minerals are essential in countless metabolic functions in all phases of the life process.

- Zinc is involved in the production, storage and secretion of insulin and is necessary for growth hormones.
- Magnesium is required for normal muscular function, especially the heart. A deficiency has been associated with an increased incidence of abnormal heart conditions, anxiety and nervousness.
- Potassium is critical for normal nutrient transport into the cell. A deficiency can result in muscular weakness, mild depression and lethargy.
- Excess sodium is associated with hypertension, but adequate amounts are required for normal health.

Minerals interact not only with each other but also with vitamins, proteins, carbohydrates and fats. Minerals influence each of these factors, and they, in turn, influence mineral status. Minerals act as enzyme activators, and vitamins are synergistic to minerals as coenzymes. It is extremely rare that a mineral disturbance develops without a corresponding disturbance in the synergistic vitamin(s). It is also rare for a

disturbance in the utilization or activity of a vitamin to occur without affecting a synergistic mineral(s). For example, vitamin C affects iron absorption and reduces copper retention. Boron and iron influence the status of vitamin B2. Vitamin B2 affects the relationship between calcium and magnesium. Vitamin B1 enhances sodium retention, B12 enhances iron and cobalt absorption, and vitamin A enhances the utilization of zinc, while antagonizing vitamins D and E. Protein intake will affect zinc status, etc. Therefore, evaluating mineral status provides good clues of vitamin status and requirements.

The HTMA Test also reveals heavy metal toxins present in your body. With this information we will be able to develop a detox protocol designed to remove the toxins from your body, providing you with better overall health.

Clinical Usefulness:

- assess mineral levels and ratios
- determine heavy metal toxicity
- reveals thyroid and adrenal function
- helps to develop an effective individualized supplemental protocol

### Comprehensive Stool Analysis Test; \$389 (30 min review)

The Comprehensive Stool Analysis Test detects the presence of pathogenic microorganisms including test, parasites and bacteria that contribute to illness and neurological dysfunction. The test also evaluates beneficial bacteria levels, intestinal immune function, overall intestinal health and inflammatory markers.

The stool sample must be collected on 2 separate days at least 12 hours apart and you must discontinue certain supplements 48 hours prior to collection. Please ask your nutritionist for specifics.

Clinical Usefulness:

- parameters for digestion and absorption
- cultures for bacteria
- cultures for yeast
- parasite testing

- sensitivity panels
- inflammatory markers
- stool metabolic markers
- infectious pathogens

\*Christian reviews your labs with you over Zoom video conferencing or facetime. Lab reviews are scheduled on Tuesdays and Thursdays. You will receive your lab results via email before your appointment begins.

Appointments lasting more than 30 minutes will be billed and paid via Square when your appointment ends.