

Laboratory Testing

- Adrenal Stress Profile
- Annual Complete Blood Testing
- Better Brain Profile
- Bone Density Testing
- Cardiovascular Health Profile
- Complete Digestive Stool Analysis and Parasitology
- Diabetes Profile
- Female and Male Salivary Hormone Assessment
- Food Allergy and Inhalant Allergy Testing
- Genetic Testing
- Helicobacter Pylori
- Thyroid Assessment
- Toxic Metal and Essential Mineral Analysis
- Vitamin Assessment

Adrenal Function Test

The Adrenal glands are involved in supporting your body during emotional, physiological or environmental stress. Evaluating your adrenal stress hormones is important particularly when dealing with chronic health conditions. Adrenal hormone imbalance may cause fatigue, weakness, dizziness, depression, headaches, low body temperature, and low blood pressure.

Annual Complete Blood Test

Clinical Research has shown that regular screening of blood tests can alert your Naturopathic Physician to screen for early stages of illness that can be managed effectively before proceeding to disease. **Chemistry Profile includes the following tests:**

- | | |
|------------------------|--------------------------|
| -Renal function | -Auto-Immune Screen |
| -Electrolyte Screen | -Celiac/Gluten Sensitive |
| -Liver Function Screen | -Enteropathy Screen |
| -Bone & Mineral Screen | -Glycemic Control Screen |
| -Thyroid Screen | -Invasive Candida Screen |
| -Coronary Risk Screen | -Anemia Screen |
| -Complete Blood Count | |

Better Brain Profile

A combination of tests that help to personalize diet and nutritional supplementation, aiming to promote optimal brain function and support conditions such as Autism and ADHD/ADD. The profile includes evaluation of: Essential & Metabolic Fatty Acid Analysis , IgG Food Antibodies , Celiac Disease screen and APOE (apolipoprotein E).

Bone Density Test

This test is critical in the prevention of bone loss throughout all stages of life. Accelerated bone loss leads to a condition known as Osteoporosis, which is defined as reduced bone density causing an increased risk of fractures.

Cardiovascular Health Profile

A comprehensive cardiovascular profile includes markers that enable early detection of heart disease up to 30% more effectively compared to conventional cholesterol testing alone.

Comprehensive Digestive Stool Assessments

Bacteria and parasites are transmitted through contaminated food and water and may remain in our system chronically affecting our overall health. Bacterial, yeast, and parasitic infestations of the gastrointestinal tract are related to Irritable Bowel Syndrome, Allergies, and colon cancer.

Diabetes Profile

The diabetes profile measures the glucose and insulin levels in your blood. Glucose comes from the food you eat; insulin transports the glucose into your body's cells from your blood. If there is a lack of insulin or it doesn't function properly, high blood glucose levels will be the result. Symptoms indicating testing should be considered include persistent thirst, urinary frequency, fatigue, and blurry vision.

Female and Male Salivary Hormonal assessment

Salivary hormone testing provides an accurate assessment of your hormonal balance by measuring stored levels of hormones. Hormones are related to the aging process, emotional health, heart health, fertility, immune function and breast and prostate cancer.

Food and Inhalant Allergy Assessment

Individual food and environmental allergies are determined through blood serum analysis using Immunoglobins (IgG and IgE). Exposure to allergens creates inflammation in your body and produces symptoms that can include: acne, arthritis, asthma, autoimmune disease, eczema, fatigue, gastrointestinal disorders, hormonal imbalances, immunodeficiency, psoriasis, and sinusitis. **“What is food to one man may be fierce poison to others”.** *Lucretius (c. 99 B.C.-c. 55 B.C.)*

Genetic Testing

DNA is the "blueprint for building life" and key to determining your genetic predisposition to specific illnesses. With this information we can offer interventions to support your health and keep you healthier. This is a very pro-active approach to healthcare.

Helicobacter Pylori

H. pylori are pathogenic bacteria that get into the body and live in the stomach. These bacteria cause gastrointestinal discomfort and may lead to ulcers, stomach cancer and lymphoma. With the results of the test, we can offer remedies to remove these bacteria from your body.

Toxic Metal and Essential Mineral Analysis

Heavy metals and essential minerals are quantitatively measured using a provocation urine collection. It is important to remove toxins from your body as an increased burden of toxic elements is related to many chronic diseases.

Thyroid Analysis

A comprehensive assessment of the thyroid hormones is used to evaluate your body's metabolism and diagnose disorders not able to be resolved through conventional medical assessments. A thyroid imbalance may cause weight gain or loss, anxiety, decreased memory, difficulty concentrating, muscle and joint pain, and low libido.

Vitamin Assessment

Research has shown that 50% of individuals taking supplements will remain deficient in vitamins, minerals and antioxidants. A specialized blood test can determine specific supplements you may require to prevent disease and enable optimal health.

Inhouse Lab Testing

- **Blood Typing Test ABO**
- **Indican: Urinary Malabsorption Test**
- **Koenisburg: Urinary Adrenal Test**
- **Oxidata: Urinary Free Radical Test**
- **Saliva pH Challenge Test**
- **Sulkowitch: Urinary Calcium Test**
- **Urinary Vitamin C Test**
- **Urinalysis: Urine Screening Dipstick Test**
- **Zinc Tally Test**

Blood Typing Test:

BLOOD TYPE AND DIET. "Eat Right for Your Type" is authored by Dr. Peter D'Adamo ND. Its basic premise is that ABO [blood type](#) is the most important factor in determining a healthy diet. Using your blood type (A, B, AB, or O) to determine which foods you should eat to optimize your health. Following the blood type diet may slow down the aging process by avoiding factors specific to your blood type that cause rapid cell deterioration.

Evolutionary anthropological studies have lead scientists to relate diet with origin of ancestry and blood type, as different areas of the world have a predominate blood type. Blood type O is the oldest and most common blood type, about 63% of the global population mainly of Indigenous Central and South America, Australia and Western Europe. Blood type A is more prevalent in Central and Eastern Europe. Blood type B is more prevalent in Central Asia. The rarest and most blood type is AB has evolved in the past 1000 years.

Blood Type A had ancestors that were agricultural cultivators, therefore a vegetarian diet rich in fruits and vegetables is recommended. Refrain from dairy products, animal fats, and meats.

Blood Type B had ancestors that were nomads, therefore a carnivorous diet (Red meat and fish) is recommended. A balanced diet with adequate meat and vegetables is ideal.

Blood Type O had ancestors that were hunters and gatherers, therefore lots of animal protein and low carbohydrate diet is recommended.

Blood Type AB, is the most evolved and is of mixed ancestry, therefore a combination of Blood Types A and B diet is recommended.

Indican: Urinary Malabsorption Test

A urine test for diagnosis and monitoring intestinal or digestive problems.

Indican originates from bacterial overgrowth, often in the small intestine. Indican is an indole molecule produced by bacterial action on an amino acid, Tryptophan, in the intestine. Most of indole is excreted in the feces. The remainder is absorbed and metabolized and excreted as indican in the urine. In normal urine, the amount of indican excreted is small. It is increased with high protein diets or inefficient protein digestion. If not digested properly, or if the wrong type of proteins are ingested, bowel putrefaction

can occur. The inability to digest protein can have adverse affects on glycemic control, hormone balance and water balance.

Bowel toxicity related to protein maldigestion can be caused by:

- Overgrowth of anaerobic bacteria
- Intestinal obstruction
- Gastrointestinal cancer,
- Low stomach acid
- Parasitic infections
- Fungal infections
- Lack of digestive enzymes
- Inflammatory Bowel Disease

Koenisburg: Urinary Adrenal Test

A practical way to monitor adrenal function that helps detect Hypoadrenia or Hyperadrenia. The Koenisburg urinary test for adrenal insufficiency assesses for urinary chloride and gives an indirect measurement of sodium excretion. The goal is to assess sub-clinical stages of low adrenal function.

The adrenal glands are a pair of endocrine organs situated above the kidneys that produce and release certain regulatory hormones and chemical messengers. The average weight of the adrenal glands is 4 grams, however, acute stress or lipid depletion may reduce the weight, whereas chronic stress and illness may induce hypertrophy. In addition to helping one handle stress, the two primary adrenal hormones, adrenaline and cortisol, along with others similarly produced, help control body fluid balance, blood pressure, blood sugar, and other central metabolic functions.

Low adrenal function, also called adrenal insufficiency or adrenal fatigue is a condition where the adrenals are unable to cope with stress. Low energy, recurrent infections, fibromyalgia and many other conditions may have this relation. Stress may be physical, emotional, psychological, environmental, infectious, or combination of above mentioned. Low adrenal function has similar symptoms to low thyroid function or can make thyroid problems to be much worse. The adrenal glands require consistent nourishment by proper sleep, lifestyle, and diet.

Oxidata: Urinary Free Radical Test

A technological breakthrough Free Radical Test using a urine sample to measure the level of free radical stress in the body. An excess of free radicals over a period of time lead to chronic diseases, cell damage and faster aging.

When free radicals oxidize fat, oxidized byproducts such as MDA (Malondialdehyde) are produced and excreted through the urine. Free Radical Screening detects the level of oxidative stress within the body and can determine if a patient needs greater antioxidant intake

Common causes of Free Radical Damage:

- Heavy metals and petrochemicals from the environment and in our foods.
- Over-the-counter and prescription drugs.
- Fried oils and fats
- Radiation (X-rays, UVA, UVB)
- Viruses, yeast, and bacteria in the system
- Low dietary intake of anti-oxidants
- Physical and emotional stress.

The frequency for the Free Radical Test varies with each individual. If an individual test color is in the high free radical range, the person should begin or increase antioxidant supplementation and retest at least twice a month until free radical activity has been reduced. The Free Radical Test should be taken once a month thereafter.

Saliva pH Challenge Test: Acid-Alkaline Balance

A simple test to measure your susceptibility to various degenerative diseases such as cancer, heart disease, osteoporosis, and arthritis. Saliva pH is controlled by your diet and the amount of vitamins and minerals you have in your body. Lower saliva pH is a good indicator for the need of vitamin and mineral supplements. Saliva pH over 7.0 is a good indicator that you are taking in enough vitamins and mineral. Saliva pH is usually measured from 5-9, the lower your score the more acidic and the more likely to have health problems. Your ideal saliva pH level should be between 7.0-7.4. Journal of the American Dietetic Association; 8/1/1990; Wampold, Richard L. The lower pH found was associated with the lack of nutrients and with a higher incidence of dental cavities. To increase the salivary pH level you need to know what foods to eat and which foods to avoid. The body recognizes foods as either acid, neutral or alkaline based. **Why is an acid-alkaline balance important in the body?**

- To ensure proper vitamin and mineral absorption.
- To maintain proper enzyme and cellular metabolism.
- To prevent increased activity of bacteria, viruses, fungi and parasites.
- To prevent the development of various degenerative conditions.

Acidic Foods: High protein foods such as meats, fish, beans and chicken tend to make the body more acidic. The most acid forming foods include coffee, soda, alcohol, sugar, processed flour and fried foods.

Alkaline foods: Fruits, vegetables, and whole grains are more alkaline in nature and will help increase saliva pH level.

Sulkowitch: Urinary Calcium Test

The Sulkowitch test measures the amount of calcium excreted in the urine, which provides insight to how well the body is able to absorb and utilize dietary calcium. The amount of calcium in the urine directly correlates to the amount in the blood. In addition, this test may help detect parathyroid-gland disorders.

Signs and symptoms that may indicate calcium deficiency:

- Bone or teeth weakness
- High blood pressure
- Osteoporosis
- Insomnia
- Fatigue
- Brittle nails
- Eye twitches
- Leg cramps
- Heart palpitations
- Dry mouth
- Anyone already taking calcium supplements to see if they are absorbing adequately and if dose correction is required.

Decreased calcium absorption can be caused by; low intake of calcium, decreased stomach acid, high fat diet, high phosphorus diet (red meat and soda), low vitamin D status, low magnesium intake, decreased exercise and digestive inflammation.

It is very unusual for calcium to be too high due to over consumption. The body goes to great lengths to keep the calcium levels at optimum levels in the blood and will take it out of the bones, muscles and teeth.

Urinary Vitamin C Test:

Humans have inherited a genetic trait which prevents vitamin C to be manufactured in the body, thus it is necessary to ensure adequate intake from dietary sources. Vitamin C is an antioxidant vitamin needed for the formation of collagen to hold the cells together and for healthy teeth, gums and blood vessels; improves iron absorption and resistance to disease. Vitamin C has been documented in the treatment of infections, (bacterial and viral), allergies, asthma, eye diseases, ulcers, heart disease, and the effects of smoking.

Normal values of urinary Vitamin-C excretion--30mg/24 hours. *Absolutely No Patient preparation required for taking the Urinary Vitamin C test.*

DECREASED levels of urinary Vitamin C may indicate:

- Chronic illness.
- Infection.
- Malabsorption.
- Malnutrition.
- Kidney deficiencies.
- Stress related conditions.
- Vitamin-C deficiency.

Dietary sources of vitamin C include: Vitamin C is found in many fresh vegetables and fruits, such as broccoli, green and red peppers, collar greens, brussel sprouts, cauliflower, cabbage, pineapples, strawberries, citrus fruits and rosehips.

Vitamin C Supplementation: Titrating Vitamin C to bowel tolerance is the method of ingesting and utilizing vitamin C in amounts just short of the dose that produces diarrhea. This amount increases proportionately to stress (anxiety, exercise, heat, cold, etc.) or toxicity of the disease and can be as much as 10 times the amount the patient would tolerate when healthy. Bowel tolerance doses of vitamin C relieve acute symptoms of many diseases. Lesser doses often have little affect on acute symptoms but assist the body in handling the stress of chronic disease. Individuals with intolerances to such high doses of Vitamin C can consider intravenous therapy.

Urinalysis: Urine Screening Dipstick Test

The screening urinalysis test is done by a reagent "dipstick" which contains little pads of chemicals that change color when they come in contact with the substances tested. There are several types of reagent strips, and it depends on the type of strip as to what tests can be performed. Urinalysis may be done as a general screening to check for early signs of disease. It may also be used to monitor diabetes or kidney disease and check for a urinary tract infection or blood in the urine.

Directions for urine sample collection: Collect a "clean-catch" (midstream) urine sample in a clean container, catch about 1 to 2 ounces of urine, and remove the container from the urine stream. The urine should be tested within 15 minutes of collection. Any vitamin C that the body does not need is excreted in the urine. If there are measurable amounts of Vitamin C in the urine, it may interfere with the other urine tests. **Various tests can be conducted from the sample:**

URINE APPEARANCE AND COLOR: If the urine is of an unusual color it may be related to food intake or medication.

URINE SPECIFIC GRAVITY (between 1.006 and 1.030): Measures the concentration of the urine depends, which depends on the time of day, the amount of food and fluids consumed, and the amount of exercise you have had recently. If the specific gravity is higher or lower than the normal range it may indicate a kidney problem.

URINE pH (4.6 to 8.0, with an average of 6.0): In some situation alkaline urine is good. Kidney stones are less likely to form and some antibiotics are more effective in the alkaline urine. There may be times when the acidic urine may help prevent some kinds of kidney stones and may prevent growth of certain types of bacteria.

URINE GLUCOSE: When blood levels of glucose are very high, some of the glucose may show up in the urine. The glucose and **KETONES** tests are usually done together. Large amounts of ketones may be present in uncontrolled diabetes.

URINE PROTEIN: Detecting protein in the urine may screen for kidney disease, although there may be a number of causes for an increased protein level in the urine.

URINE BLOOD: Indication of a urinary tract infection or bleeding from the kidneys. However, hematuria may also be a result of vigorous physical exercise.

BILIRUBIN: Is a sign of a liver or bile duct disease. **UROBILINOGEN** is found in trace amounts in the urine. Greater amounts indicate further testing is necessary.

NITRITES and **WHITE BLOOD CELLS** are an indication of a urinary tract infection.

Oral Zinc Test: Zinc Tally

Any of the below signs and symptoms may be an indication of inadequate levels of the trace mineral zinc. The British 1988 Pharmacopoeia considers the *Zinc Tally* test a good way of testing one's zinc status. The test fluid consisting of a 0.1 % solution of zinc sulphate in distilled water and can detect zinc deficiency in the body. The zinc solution may also be used as a zinc supplement in the case of zinc deficiency.

Zinc deficiency Signs and Symptoms:

- Loss of taste and smell
- Frequent colds and flu
- Premature gray hair
- White marks on nails
- Dry or cracked skin and lips
- Fungal skin infections
- Macular degeneration
- Eyes sensitive to sunlight
- Enlarged prostate (BPH) or prostatitis
- Diabetes or hypoglycemia
- Low sperm count, impotence

Test Procedure: You must not eat, drink, or smoke less than one hour before the test. Then take the equivalent of 10ml of the fluid and rinse your mouth for 10 seconds, after which you can either swallow or spit it out. **No flavour or "like water" => zinc deficiency.**

Unpleasant flavour may be described as either "dry", "metallic", or "sweet" => **No zinc deficiency.**

In cases with amalgam dental fillings in the mouth disposing a fair amount of mercury, the zinc test may not be accurate. The zinc liquid might cause a nasty, metallic taste in the mouth in spite of the zinc deficiency in the body.

