



**Available in  
British Columbia**

# Why Order Patient Assessment Panels?

Patient Assessment Panels are a great tool for gaining comprehensive insights about your patient's health status, improving your understanding of the underlying imbalances that lead to disease. Each panel has been developed with specific clinical questions in mind. Here you can find the clinical relevance for each of the panels and when you might consider ordering them for your patients.





## Hematology Assessment

The Hematology Assessment provides insight into common markers of blood health. The Complete Blood Count (CBC) reports on the health of red blood cells, white blood cells and platelets. Iron and vitamin B12 biomarkers are included to assess for anemias. The Hematology Assessment may be recommended in the presence of suspected anemias, nutritional deficiencies or any conditions related to blood health (e.g. infections, leukemias, blood clotting disorders).<sup>2,3,4,5</sup>

## Lipids Assessment (Fasting preferred)

The Lipids Assessment reports on cholesterol, triglycerides and the lipid transport proteins LDL and HDL. Lipid levels are standard tests for assessing risk of cardiovascular disease. The Lipids Assessment may be recommended in the presence of low DHEAS in men or women, when androgens are high in women, or whenever cardiovascular disease is suspected.

## Mineral Assessment

The Mineral Assessment provides insight into serum levels of common minerals including calcium (the active ionized form), copper, magnesium and zinc. Serum levels of minerals are generally reflective of recent intake, but a normal result does not preclude the possibility of a mild or moderate deficiency since body stores may be lower than serum levels. The Mineral Assessment may be recommended when urine essential elements are abnormal, hair element analysis exhibits a noticeable 'left shift' or whenever deficiencies or insufficiencies of key minerals are suspected.



## Basic and Enhanced Thyroid Assessments

The Thyroid Assessments provide insight into the major thyroid hormones and thyroid antibodies that inform on thyroid disorders including TSH, free T3, free T4 and TPO. The Enhanced Thyroid Assessment also includes reverse T3 and anti-thyroglobulin antibodies. A Basic or Enhanced Thyroid Assessment may be recommended when hyper- or hypothyroidism is suspected or when hormone imbalances are present that affect, or are affected by, thyroid hormone function. In particular, high cortisol, low cortisol, elevated estrogens, and low DHEAS all have important interactions with thyroid hormones.

## Autoimmune Assessment

The Autoimmune Assessment provides insight into levels of a variety of disease-specific antibodies. Research shows that organ-specific (e.g. thyroid peroxidase) and non-organ specific antibodies (e.g. rheumatoid factor) rise steadily in the years prior to diagnosis of autoimmune disease. In addition, research has shown that removal of wheat gluten from the diet often results in a significant decline in antibody levels. By monitoring antibody levels, functional medicine practitioners may be able to identify and prevent or treat potential autoimmune disorders.<sup>6</sup> The Autoimmune Assessment may be recommended in the presence of elevated gliadin antibodies or moderate or high risk for celiac disease associated with HLA antigens or other celiac markers.

## Female Hormone Assessment

The Female Hormone Assessment is comprised of five major hormones. Interactions between these hormones are fundamental to overall health. Imbalances may negatively impact health and if left untreated may lead to more serious health concerns including polycystic ovary syndrome, thyroid dysfunction, adrenal dysfunction, metabolic syndrome, mental health concerns or chronic illnesses such as lupus and rheumatoid arthritis. The Female Hormone Assessment may be recommended when hormone imbalance is suspected or when the patient presents with weight management issues, chronic fatigue, or mood disorders.

## Female Fertility Assessment

The Female Fertility Assessment provides insight into the most common hormone abnormalities that can affect fertility in women, including elevated prolactin, thyroid disorders, progesterone insufficiency, and polycystic ovary syndrome. Stress can also affect fertility, so consideration may be given to ordering the Comprehensive Hormone Insights™ (CHI) for a view to cortisol production/patterns. The Female Fertility Assessment may be recommended in the presence of decreased progesterone and elevated androgens in women, or whenever infertility is a clinical concern.

## Fatigue Assessment

The Fatigue Assessment provides insight into common causes of fatigue, which include anemias (macrocytic, microcytic, iron deficiency), infections (viral or bacterial), mononucleosis, and hypothyroidism. The Fatigue Assessment informs on nutritional causes of anemias including iron and vitamin B12 deficiency, thyroid function, and presence of antibodies to Epstein-Barr virus. The Fatigue Assessment may be recommended in the presence of low cortisol or when clinical signs and symptoms of general malaise are evident.

### References:

1. Hammond, G. L., Wu, T. S., & Simard, M. (2012). Evolving utility of sex hormone-binding globulin measurements in clinical medicine. *Current Opinion in Endocrinology, Diabetes, and Obesity*, 19(3), 183-189. <https://doi.org/10.1097/MED.0b013e328353732f>.
2. Mayo Foundation for Medical Education and Research. (n.d.). Test ID: Folate, Serum. Retrieved July 13, 2018, from Mayo Clinic website: <https://www.mayomedi-callaboratories.com/test-catalog/Clinical+and+Interpretive/9198>
3. Mayo Foundation for Medical Education and Research. (n.d.). Test ID: Vitamin B12 Assay, Serum. Retrieved July 13, 2018, from Mayo Clinic website: <https://www.mayo-medicallaboratories.com/test-catalog/Clinical+and+Interpretive/9154>
4. Mayo Foundation for Medical Education and Research. (n.d.). Test ID: CBC with Differential, Blood. Retrieved July 13, 2018, from Mayo Clinic website: <https://www.mayomedicallaboratories.com/test-catalog/Clinical+and+Interpretive/9109>
5. Mayo Foundation for Medical Education and Research. (n.d.). Test ID: Ferritin, Serum. Retrieved July 13, 2018, from Mayo Clinic website: <https://www.mayomedi-callaboratories.com/test-catalog/Clinical+and+Interpretive/88153>
6. The Nutrition for Optimal Health Association. (2009, Winter). Avoid Wheat If Elevated Antibodies But No Symptoms? *Nutrition Digest*, 38(2). <http://americannutritionassociation.org/newsletter/avoid-wheat-if-elevated-antibodies-no-symptoms-0>