



The Role of Laboratory Testing for Mood Disorders

Our bodies use symptoms, whether mental or physical, to tell us that we are ill. But to understand the meaning behind those symptoms, we must listen to and understand another language through which our imbalanced physiology speaks – biochemistry. Laboratory testing is one way those biochemical messages can be made audible.

In addition to the psychosocial contributors to mental and emotional pain, there can be multiple potential *physiological* causes. Our approach to uncovering these physical factors is a scientific one – gathering objective laboratory data that may include a close examination of a patient’s nutritional status, hormone levels, gastrointestinal function, energy metabolism, immune system, and genetic profile.

To give a drug, herb, or supplement based on only the symptoms of an illness is guesswork. The risk is that what makes each person biochemically unique can be overlooked. Our aim is to provide the physiological intervention that the patient’s body tells us it needs. While a thorough history and physical exam are vital, sometimes laboratory tests provide the most complete translation of what someone’s symptoms are trying to say.

Commonly Recommended Lab Tests

Please note that while these tests can be costly, they are only ordered when medically necessary. And, of course, not all or even most of these tests are ordered on every patient. Some patients may not require any, or the relevant laboratory studies may have been done recently enough to provide the necessary information. Diagnostic assessments, like the treatments we employ, are highly individualized, and based on a comprehensive initial evaluation.

Balance Women’s Health does not profit from the laboratory tests ordered. Labs are completed out of office at laboratory of patient’s choice. Depending on insurance coverage, laboratory tests can pose a significant expense. We ask our patients to check on their lab coverage and out of pocket expense before having labs completed. However, if results lead to the identification of treatable upstream causes of downstream neuropsychiatric or other symptoms, ordering them can ultimately save a lot of money for patients, as well as foreshorten or prevent unnecessary suffering. While the lab assessment needs of each patient will vary, individuals with complex chronic conditions that have been refractory to other treatments should expect to spend a bit more.

Comprehensive metabolic blood panel, Thyroid Panel, and CBC: The factors assessed are hormone imbalances, liver dysfunction, anemias, inflammation, nutrient deficiencies, blood sugar dysregulation, and blood fat abnormalities. Included on this panel are markers for thyroid function: TSH, thyroid hormones (free T4, free T3, and reverse T3), and thyroid autoimmune markers. Hypothyroidism can often be a contributing factor to depression and fatigue conditions. Although less common, hyperthyroidism can be a source of agitation, nervousness, and insomnia. For some patients, their symptoms and history indicate that other items should be added to this basic screen.

Vitamin Deficiency: We commonly check for deficiency in vitamin D, folic acid and B 12 as they commonly contribute to mood disorders.

Inflammatory Markers: The inflammatory process contributes to mood disorders and can indicate whether or not a patient will likely respond to treatment with traditional medications or may require the treatment of the underlying inflammatory illness for remission of symptoms.

Hormone Levels: Many women with mood symptoms have hormone imbalance or an excess or deficiency in hormone levels that influence neurotransmitters or contribute to symptoms and distress. Measuring levels can help identify the deficiency as well as assist in guiding and monitoring treatment.

Glucose/insulin response profile test: This test is recommended when blood sugar imbalances are suspected. It looks at fasting glucose and insulin levels, and then records post-glucose drink levels of glucose and insulin drawn at ½ hour, one hour, 1½, and two hours. This test measures how effective insulin is at facilitating the movement of sugar from the blood into cells. Impaired insulin sensitivity of cells is associated with and contributes to obesity, low-level chronic systemic inflammation, heart disease, atherosclerosis, anxiety, depression, and mild cognitive impairment, and dementia.

MTHFR (Methyl-tetrahydrofolate reductase): This is a common genetic variant that causes the key enzyme (MTHFR) in the body to function at a lower than normal rate, leading to a variety of medical problems. The brain and nervous system are exquisitely sensitive to impairments in the methylation process. Knowing about the presence of mutations in the genes that control these functions can be an important guide to treatment. A variant in the MTHFR gene often causes a deficiency in the neurotransmitters responsible for mood regulation, including dopamine, serotonin and norepinephrine as well as elevated levels of homocysteine and increased risk of developing cancer.

Psychiatric drug response genetic panel: This test has some similarities to the above gene test. But it is more focused on genetic variations that affect a patient's capacity to benefit from, develop adverse reactions to, and detoxify common psychiatric medications. It can also identify genes related to the synthesis and utilization of neurotransmitters. Included on this panel is a MTHFR gene test. This is a genetic test that looks for the presence of a mutated gene that codes for an enzyme needed to metabolize folic acid. When present it can impair the utilization of folic acid from the diet, and be a significant contributing factor to a variety of neuropsychiatric conditions due to dysregulations of serotonin, norepinephrine, and dopamine.

Autoimmune antibody testing: Autoimmune disorders can affect multiple parts of the body, such as the heart, reproductive organs, joints and connective tissue, endocrine glands, and brain tissue. When found early, these antibodies can *predict* illness, i.e., they can sometimes show up decades before an illness produces serious tissue damage or gets expressed as symptoms. This enables patients to initiate treatments that have the potential to prevent future disease.

If you have a recent lab evaluation (within the past 12 months) from another provider please provide those records or complete a record release form so that your doctor can share your records with us.