

Keith Holden, M.D.

Functional Medicine

Innovating Chronic Disease Care

Functional Medicine is a relatively new field of medicine that is paving the way for a revolutionary transformation in the treatment of chronic disease. Through science-based training programs developed by The Institute for Functional Medicine, healthcare practitioners in a wide variety of settings are taught to assess for and treat underlying causes of illness through a whole-body system based approach. By identifying root level imbalances, *Functional Medicine practitioners assist the body in making corrections to allow for healing and resolution of chronic illness.*

Functional Medicine's focus is on patient-centered rather than disease-centered care, and recognizes the interconnection of all organ systems in the context of unique environments and varying genetic predispositions. Functional Medicine assesses how our environment, including trauma, chemicals, heavy metals, allergens, hidden and overt infections, drugs, toxins, and stress, impacts the body's defense and regulatory systems. It recognizes that each individual is biochemically different, and how one person may require a higher level of a nutritional substance than another person for a more optimal level of function.

Using a very thorough interview process, Functional Medicine practitioners are taught to assess for antecedents, triggers, and mediators of disease expression by creating a detailed map of the individual's health history called the Functional Medicine Matrix Model. This matrix correlates predispositions for illness, and emphasizes the interconnectedness of body systems, while acting as a guide for practitioners on which path to take in wellness care. Combined with a thorough physical examination



and specialized laboratory testing, Functional Medicine goes beyond the traditional method of disease diagnosis and prescribing of drugs in an attempt to eliminate causative factors of disease.

Functional Medicine looks for imbalances in eight core physiologic systems, including nutrition, immune/inflammation, hormonal, digestive, detoxification, energy metabolism, body-mind, and body structure. Some of these imbalances can be found by evaluating blood, saliva, stool, or urine for amino acids, vitamins, antioxidants, immunoglobulins, hormones, fatty acids, minerals, heavy metals, markers for oxidative stress, neurotransmitter metabolites, metabolites of digestion, and imbalances of gut flora.

These tests can reflect what is going on at the cellular and biochemical level and enable a definitive focus for intervention. In some cases, treatment can be as simple as putting a patient on a hypoallergenic elimination diet, starting digestive enzymes, probiotics, and fish oil supplementation, to create a significantly positive impact on the patient's overall health.

Functional Medicine practitioners know that each body system profoundly impacts the others, and that optimizing the integrity and interplay of each system is integral to a patient's optimal health. One example of this is that to optimize immune system function, one must optimize gastrointestinal (GI) system function. This symbiotic relationship is important because over 70% of the body's lymphocytes (white blood cells) are found in the lymphoid tissue surrounding the GI tract, and because you must have adequate GI function to assimilate and absorb nutrients necessary for proper immune system function. Another well documented example is how poor

oral health promotes systemic disease. Optimal oral health requires a delicate balance of microbes and the immune system, and when imbalanced, inflammation ensues. Inflammatory mediators enter the blood stream, and predispose certain individuals to diabetes, rheumatoid arthritis, obesity, osteoporosis, complications during pregnancy, and cardiovascular disease. Good Functional Medicine practitioners know the importance of working with dentists to keep systemic inflammation at bay.

As a core concept, Functional Medicine acknowledges that food is medicine and all patients are counseled on nutrition.

Most medical students in America are given very little training in how nutrition impacts the expression of disease. The Institute for Functional Medicine emphasizes training in nutrition as a core competency for its practitioners. In keeping with this emphasis on nutrition, most patients are placed on the Functional Medicine Comprehensive Elimination Diet, which is a hypoallergenic whole-food based dietary program designed to remove most common food and chemical sensitivities. Eliminating these sensitivities allows the body's detoxification systems to function efficiently again, thus facilitating removal of various toxins which have accumulated in the body through environmental exposure to foods, chemicals, drugs, and alcohol. This dietary program includes inclusion and exclusion lists, a shopping list, menu plans, recipes, and snack suggestions.

Functional Medicine practitioners serve their patients as an educator and coach. He or she attempts to partner with the patient and use non-invasive, low risk, and more natural approaches to therapies, knowing that the human body is an amazing organism capable of great feats of self-repair when properly supported. Patients are taught lifestyle changes, an integral component for success in the Functional Medicine model.



While lifestyle changes are often recommended in the traditional medical model, most traditional healthcare providers are not able to spend enough time with patients to adequately teach and monitor lifestyle modifications. Functional Medicine practitioners design their practices around spending enough time with patients to not only teach lifestyle changes, but also to have consistent follow-up and time to mentor patients through these changes.

The most common contributors to systemic disease are poorly managed stress and old emotional toxins. These unresolved conflicts keep the body's autonomic nervous system, or autopilot, in a "fight or flight" stress state, which lowers immunity and causes adrenal gland dysfunction and other hormone imbalances. Functional Medicine practitioners often play the role of psychological counselor, or at least guide their patients on steps to address emotional stressors through such methods as meditation and other mindfulness practices. Some Functional Medicine practitioners use innovative therapies for dealing with stress and autonomic nervous system imbalances, such as microcurrent therapy, pulsed electromagnetic field therapy, and heart rate variability analysis.

Functional Medicine practitioners tend to be classified as innovators who continually evaluate and research the practice of medicine for new ways to treat which do no harm. The traditional medical model lags behind in innovation when it comes to disease prevention and more natural therapies due to a system that emphasizes the use of drugs and surgical interventions to combat disease. Functional Medicine promotes innovation through a science-based but practical approach to enhance the way modern medicine treats chronic disease. Under the care of a properly trained practitioner, Functional Medicine is a powerful, effective, and safe way to treat chronic illness. To learn more about Functional Medicine, and to search for a practitioner in your area, go to www.FunctionalMedicine.org.