



Functional Medicine

Patient Handout

Dr. Hoffman is a traditionally trained medical doctor who obtained his medical degree in 1981. For twenty years he worked in traditional family practice and since the early 1990's he started to incorporate the principles of Functional Medicine into the way he managed patients. In 2008, he obtained his Fellowship Training in Functional Medicine, Anti-Aging and Regenerative Medicine. The principles of Functional Medicine are firmly incorporated into his Seven Stages to Health and Transformation Model. Please read below for a broader description of what exactly Functional Medicine entails.

What is Functional Medicine?

Functional medicine is an evolution in the practice of medicine that better addresses the healthcare needs of the 21st century. By shifting the traditional disease-centered focus of medical practice to a more patient-centered approach, functional medicine addresses the whole person, not just an isolated set of symptoms. Functional medicine practitioners spend time with their patients, listening to their histories and looking at the interactions among genetic, environmental, and lifestyle factors that can influence long-term health and complex, chronic disease. In this way, functional medicine supports the unique expression of health and vitality for each individual.

Why Do We Need Functional Medicine?

- Our society is experiencing a sharp increase in the number of people who suffer from complex, chronic diseases, such as diabetes, heart disease, cancer, mental illness, and autoimmune disorders like rheumatoid arthritis.
- The system for medicine practiced by most physicians is oriented toward acute care, the diagnosis and treatment of trauma or illness that is of short duration and in need of urgent care, such as appendicitis or a broken leg. Physicians apply specific, prescribed treatments such as drugs or surgery that aim to treat the immediate problem or symptom.
- Unfortunately, the acute-care approach to medicine lacks the proper methodology and tools for preventing and treating complex, chronic disease. In most cases, it does not take into account the unique genetic makeup of each individual or factors such as environmental exposures to toxins and the aspects of today's lifestyle that have a direct influence on the rise in chronic disease in modern Western society.
- There's a huge gap between research and the way doctors practice. The gap between emerging research in basic sciences and integration into medical practice is enormous - as long as 50 years - particularly in the area of complex, chronic illness.
- Most physicians are not adequately trained to assess the underlying causes of complex, chronic disease and to apply strategies such as nutrition, diet, and exercise to both treat and prevent these illnesses in their patients.

How is Functional Medicine Different?

Functional medicine involves understanding the origins, prevention, and treatment of complex, chronic disease. Hallmarks of a functional medicine approach include:

- The focus of functional medicine is on patient-centered care, promoting health as a positive vitality, beyond just the absence of disease. By listening to the patient and learning his or her story, the practitioner brings the patient into the discovery process and tailors treatments that address the individual's unique needs.
- An integrative, science-based healthcare approach. Functional medicine practitioners look “upstream” to consider the complex web of interactions in the patient's history, physiology, and lifestyle that can lead to illness. The unique genetic makeup of each patient is considered, along with both internal (mind, body and spirit) and external (physical and social environment) factors that affect total functioning.
- Functional medicine integrates traditional Western medical practices with what are sometimes considered “alternative” or “integrative” medicine, creating a focus on prevention through nutrition, diet, and exercise; use of the latest laboratory testing and other diagnostic techniques; and prescribed combinations of drugs and/or botanical medicines, supplements, therapeutic diets, detoxification programs, or stress-management techniques.
- Functional medicine practitioners promote wellness by focusing on the fundamental underlying factors that influence every patient's experience of health and disease.

The Functional Medicine Approach to Assessment

The Institute for Functional Medicine teaches practitioners how to assess the patient's fundamental clinical imbalances through careful history taking, physical examination, and laboratory testing. The functional medicine practitioner will consider multiple factors, including:

- Environmental inputs – The air you breathe and the water you drink, the particular diet you eat, the quality of the food available to you, your level of physical exercise, and toxic exposure or traumas you have experienced all affect your health.
- Mind-body elements – Psychological, spiritual, and social factors all can have a profound influence on your health. Considering these areas helps the functional medicine practitioner see your health in the context of you as a whole person, not just your physical symptoms.
- Genetic makeup - Although individual genes may make you more susceptible to some diseases, your DNA is not an unchanging blueprint for your life. Emerging research shows that your genes may be influenced by everything in your environment, as well as your experiences, attitudes, and beliefs. That means it is possible to change the way genes are activated and expressed.
- Through assessment of these underlying causes and triggers of dysfunction, the functional medicine practitioner is able to understand how key processes are affected. These are the body's processes that keep you alive. Some occur at the cellular level and involve how cells function, repair, and maintain themselves. These processes are related to larger biological functions, such as:
 - How your body rids itself of toxins
 - Regulation of hormones and neurotransmitters
 - Immune system function
 - Inflammatory responses
 - Digestion and absorption of nutrients and the health of the digestive tract
 - Structural integrity
 - Psychological and spiritual equilibrium
 - How you produce energy

- All of these processes are influenced by both environmental factors and your genetic make-up; when they are disturbed or imbalanced, they lead to symptoms, which can lead to disease if effective interventions are not applied.

A Comprehensive Approach to Treatment

Most imbalances in functionality can be addressed; some can be completely restored to optimum functions, and others can be substantially improved.

- Prevention is paramount. Virtually every complex, chronic disease is preceded by long-term, disturbances in functionality.
- Changing how the systems function can have a major impact on the patient's health. The functional medicine practitioner examines a wide array of available interventions and customizes a treatment plan including those with the most impact on underlying functionality.
- Functional medicine expands the clinician's tool kit. Treatment may include combinations of drugs, botanical medicines, nutritional supplements, therapeutic diets, or detoxification programs. They may also include counseling on lifestyle, exercise, or stress-management techniques.
- As a patient, you become an active partner with your functional medicine practitioner. This allows you to really be in charge of improving your own health and changing the outcome of disease.

Chronic Pain, Chronic Fatigue, Fibromyalgia & Autoimmune Disease Patterns of Illness

- Our approach to treating chronic fatigue, fibromyalgia, chronic pain states and autoimmune disorders is derived from applying the best research available pertaining to the biochemical, hormonal, nutritional, immunological, neurological and genetic aspects of these conditions. We use the principles outlined in The Seven Stages to Health and Transformation model developed by Dr Hoffman, as well as the principles as applied in Functional Medicine.
- We use extensive Canadian and USA blood tests to document the presence of genetic defects, chronic infections and inflammation, depleted essential nutrients, hormone imbalances, neurotransmitter deficiencies, heavy metal toxins, detoxification defects, mitochondrial energy deficiency, dental issues, food sensitivities, gut ecosystem imbalances, and immune system insufficiencies. We teach patients how to restore strength to these systems and reclaim their health using a variety of therapeutics, including physical remedies, energetic and mind body based techniques. Our first priority however, is not treatment but it is to discover the underlying biochemistry that is abnormal.
- The metabolic shift observed in chronic disease is not random, there is a pattern. This pattern includes altered blood flow to the brain, low serotonin levels (frequently immeasurable in the blood of our patients), dysregulated hypothalamic-pituitary-adrenal axis due to chronic stress, nutrition deficiency, toxicity or inflammation, elevated substance P levels, elevated rT3/FT3 ratios, reduced mitochondrial membrane permeability (impairs energy production), elevated levels of viral and bacterial DNA, elevated incidence of infections like sinusitis, elevated TNF-alpha levels, reduced mu-opioid receptors and impaired unmyelinated nerve structure in peripheral nerves, elevated stage 1 (shallow) sleep and reduced stage 4 (deep) sleep.
- There is heightened sympathetic nervous system activity (stress mode) and reduced parasympathetic (calming) nervous system activity. Dr. Jacob Teitelbaum has referred to this state as "tired, but wired", and it is a feeling that most patients desperately want to turn off so that they can relax, sleep and feel like themselves again.
- Coming out of chronic pain, fatigue and fibromyalgia is possible and it is our great pleasure

to see patients getting their lives back.

Labs

- Labs determine Biochemical deficiencies which need to be replaced.
- They re-establish normal metabolism pathways required to function optimally

Why Do I have to Take Supplements

- Every supplement and hormone chosen has a reason.
- They replace the deficiency detected in the completed lab tests.

If you wish to learn more about Functional Medicine, visit www.functionalmedicine.org