



## Understanding Biotransformation and Recognizing Toxicity: Evaluation and Treatment in the Functional Medicine Model

This is the second in a series of **A**dvance **P**ractice **M**odules to build the clinician's deeper understand of functional medicine. This module is designed to:

- **A**dvance your understanding of the critical links among toxicity, impaired biotransformation, and chronic disease
- Support your **P**ractice with practical tools that will allow you to better assess and treat your patients
- Incorporate the Functional Medicine **M**atrix Model into you clinical decision making

In the 21<sup>st</sup> century, two things have become increasingly apparent: first, we are exposed to a more complex array of toxic compounds in our air, water, and food than ever before. The EPA estimated that in 1994 over 2.2 *billion* pounds of toxic chemicals were released into the environment in the United States. That more than doubled to 4.7 billion pounds in 2002. There is mounting evidence supporting relationships between these toxins and a variety of chronic health issues, but the connections to dysfunction are often subtle, multifaceted, and complex. Second, medical science has recognized that an individual's ability to detoxify or biotransform and excrete toxic substances, both exogenously (xenobiotics) and endogenously (products of metabolism), is of critical importance to overall health. While the concept that toxins accumulate in the body and are the cause of various health problems has long been a fundamental tenet of traditional healthcare systems around the world, we have learned a great deal in recent years about how toxins affect us, where they are coming from, and how to improve our ability to detoxify in a toxic world. Understanding toxicity and taking practical steps to improve biotransformation are essential and critical pieces in any integrative approach to your patients' health and well-being.

This Functional Medicine Advanced Practice Module™ will focus on systemic influences of toxins and on ways to help patients using tools that you can apply immediately in your practice. We will supply you with the foundational background, insight, and in-depth clinical thinking to confidently work-up and treat any patient who may present with conditions or signs and symptoms indicative of toxicity and/or impaired biotransformation. Our faculty team of Ken Bock, MD; Jeanne Drisko, MD; Kristi Hughes, ND; and Diana Noland, RD, CCN, will discuss in detail the important laboratory evaluations to be considered, the appropriate clinical connections that must be made, and the treatment approaches that should be used. This program will provide a unique, hands-on, experiential, case-based, integrated approach that will provide you with the tools you need to apply a comprehensive functional medicine approach to your patients. Our aim is to make the complex and numerous connections between toxicity and overall health and disease clear and understandable, but most importantly, clinically applicable.