

Metabolic Typing Methodology

The Healthexcel System of Metabolic Typing has evolved over a 30 year period to its present state in year 2006, of evaluating 10 Fundamental Homeostatic Control Mechanisms to define metabolic individuality and serve as a basis for individualized nutritional, metabolic lifestyle programs.

Whenever adverse traits have been present or degenerative conditions diagnosed prior to metabolic typing evaluations, imbalances in one or more of the Fundamental Homeostatic Controls (FHC) have always been found when testing the metabolic type.

The quest of metabolic typing is to determine which FHCs are out of balance, and which aspect of the FHC is involved, regardless of the presence of disease or state of health. The only concern in metabolic typing regards which foods and nutrients best balance and support each individual's metabolic requirements. For example, if an Autonomic imbalance exists, either the Sympathetic or the Parasympathetic system could be at fault.

Which FHC is out of balance, and which component of the FHC is involved, will dictate what dietary and nutritional protocols are required to restore balance (properly address the metabolic type). Referring to the example, if a sympathetic imbalance exists, those foods and nutrients that specifically stimulate, strengthen and support the parasympathetic system would be employed, and vice versa for a parasympathetic imbalance. The following summarizes the FHCs and their components that comprise Healthexcel's metabolic typing evaluations:

FHC	FHC COMPONENTS
AUTONOMIC	sympathetic, balanced, parasympathetic
OXIDATIVE	fast, mixed, slow
NEUROTRANSMITTER	excitatory, inhibitory
CATABOLIC / ANABOLIC	catabolic, anabolic
ELECTROLYTE / FLUID	electrolyte excess, electrolyte deficiency
ACID / ALKALINE	metabolic acidosis, respiratory acidosis, potassium excess acidosis, metabolic alkalosis, respiratory alkalosis, potassium depletion alkalosis
PROSTAGLANDIN	PG1, PG2, PG3
ENDOCRINE	pituitary, thyroid, adrenal, gonad
BLOOD TYPE	A, B, AB, O
CONSTITUTIONAL	vata, pitta, kapha

Various modalities have evolved over the last 30 years to evaluate the 10 FHC's and assess the metabolic type: computer analysis of questionnaires, specific objective physiological and biochemical indicators based on metabolic challenge testing, and hair analyses, for example.

The following chart itemizes the types of test procedures utilized in metabolic type testing:

FHC	EVALUATION METHODS
AUTONOMIC	questionnaire, objective challenge tests, hair analysis
OXIDATIVE	questionnaire, objective challenge tests, hair analysis
NEUROTRANSMITTER	urinalysis
CATABOLIC / ANABOLIC	biochemical indicators
ELECTROLYTE / FLUID	physiological and biochemical indicators
ACID / ALKALINE	physiological and biochemical indicators
PROSTAGLANDIN	questionnaire
ENDOCRINE	questionnaire
BLOOD TYPE	lab or home blood type test
CONSTITUTIONAL	questionnaire

Inherent in the use of any questionnaire is the challenge of subjectivity. This issue has been resolved through several evolutionary developments. First, when sufficient numbers of questions are used, inaccuracies of answers can be accounted for. Second, the use of a computer allows for the utilization and tabulation of weighting factors. Certain traits are more indicative of metabolic type than others and can be more heavily weighted. Third, with sufficient numbers of questions, patterns can be discerned through the computer analysis. It is these patterns of metabolism that are indicative of metabolic type factors as opposed to any one or number of traits taken individually. Of interest is the fact that when compared to objective indicators, there is a very high level of accuracy through the use of the computerized questionnaires that we have developed.

Because of the nature of metabolic individuality in relation to nutrients – nutrients behave differently on different levels of the body’s hierarchical organization, and nutrients behave differently in different metabolic types – the use of *absolute* markers is of no practical value in the determination of a metabolic type.

An absolute clinical value can be used to indicate organ dysfunction, but not to discern either the metabolic type or the appropriate nutritional protocol. However, since the specific effects of nutrients on the Fundamental Controls is known (e.g., calcium is sympathetizing, slow oxidizing and catabolic), the use of specific *biochemical challenges* are employed as part of our system of metabolic type testing. How the body reacts to these challenges can objectively help to reveal the underlying dominance of the Fundamental Homeostatic Controls.