

## Lab Tests We Need - Functional Perspective (Mar 2011)

When I do a functional blood chemistry analysis, I look for optimal ranges of all the markers in the old SMAC 24 test, a panel that used to include 20+ blood chemistry tests, lipids & triglycerides.

Currently, most labs' Comprehensive Metabolic Panels have only 15-17 tests. They leave out several important markers that we cross-reference with other results in order to determine the likelihood of functional patterns indicating reactive hypoglycemia, adrenal issues, nutrient deficiencies, etc.

- Quest:** 8000 META COMP (17 items) is a typical panel currently used

### COMPREHENSIVE METABOLIC PANEL

SODIUM, SERUM	CALCIUM, SERUM
POTASSIUM, SERUM	PROTEIN, Total
CHLORIDE, SERUM	ALBUMIN
CO2 (Carbon Dioxide)	GLOBULIN, Total
BUN (Urea Nitrogen,Blood)	A/G RATIO
CREATININE, SERUM	AST (SGOT)
eGFR	ALT (SGPT)
GLUCOSE	BILIRUBIN, Total
	ALKALINE PHOSPHATASE

- To complete the full metabolic panel, add these 4 tests

GGT	LACTATE DEHYDROGENASE (LDH)
URIC ACID, Serum	PHOSPHORUS, Serum

#### Plus

- CBC (INCLUDES DIFF/PLT)
- LIPID PROFILE

#### To complete the blood sugar evaluation, add

- HEMOGLOBIN A1C Immunoassay

#### To complete the iron evaluation, add

- FERRITIN
- IRON
- TIBC

#### To complete a basic thyroid function evaluation:

- TSH, (3<sup>rd</sup> generation)
- T4 (THYROXINE) Also known as: Total T4
- T3 UPTAKE
- T3, FREE

- THYROID ANTIBODY PANEL - (7260X): **Only need to run one time if positive.** Includes

- THYROGLOBULIN ANTIBODIES
- THYROID PEROXIDASE ANTIBODIES

#### when T4 medication like Synthroid, Levoxyl, etc, fails to resolve symptoms, add

- T4, FREE
- T3, REVERSEto get RT3/FT3 ratio

#### For optimal understanding of thyroid, inflammation, cardiovascular and immune function, add

- HOMOCYSTEINE
- VITAMIN D, 25-HYDROXY \*\*
  - \*\*  VITAMIN D, 1,25-DIHYDROXY \*\* run this **only** if Vit. D, 25-HYDROXY is not as expected
- MAGNESIUM, RBC
- CARDIO CRP = hs CRP
- FIBRINOGEN
- VITAMIN B-12 AND FOLATE or  METHYLMALONIC ACID (a much better test for B12)

These tests provide baseline assessment and monitor progress.