



# Curated Nutrition & Health Profile

Boston Heart is proud to offer a curated profile for the assessment of nutrition and health. This profile is excellent for monitoring risk factors for cardiovascular disease, diabetes, vitamin deficiencies and other metabolic dysfunctions

These conditions are widespread and very common among patients, but they are largely treatable, reversible, and/or preventable. The right combination of blood tests is needed to unmask risk factors and optimize health. Healthy lifestyle choices, including optimal nutrition, can make a tremendous difference in overall health and disease prevention.

## Advanced Lipid Testing and Inflammation

Routine lipid testing is insufficient to identify and monitor patients' cardiometabolic risk adequately. Small Dense LDL-C, Lp(a), and fatty acids are all important for uncovering and treating hidden risk. Inflammation in the arteries is an important cause of cardiovascular risk. Basal levels of the inflammation marker, CRP, are good measures of CVD risk after ruling out other causes of inflammation.

## Fatty Acids

Fatty acids are essential to heart health. Balancing fatty acids can improve cholesterol and triglyceride levels, improve immune system function as well as reduce inflammation and rate of heart disease. The Boston Heart Fatty Acid Balance™ test measures the major fatty acids (FA) for the purposes of cardiovascular disease characterization and management.

## Metabolics

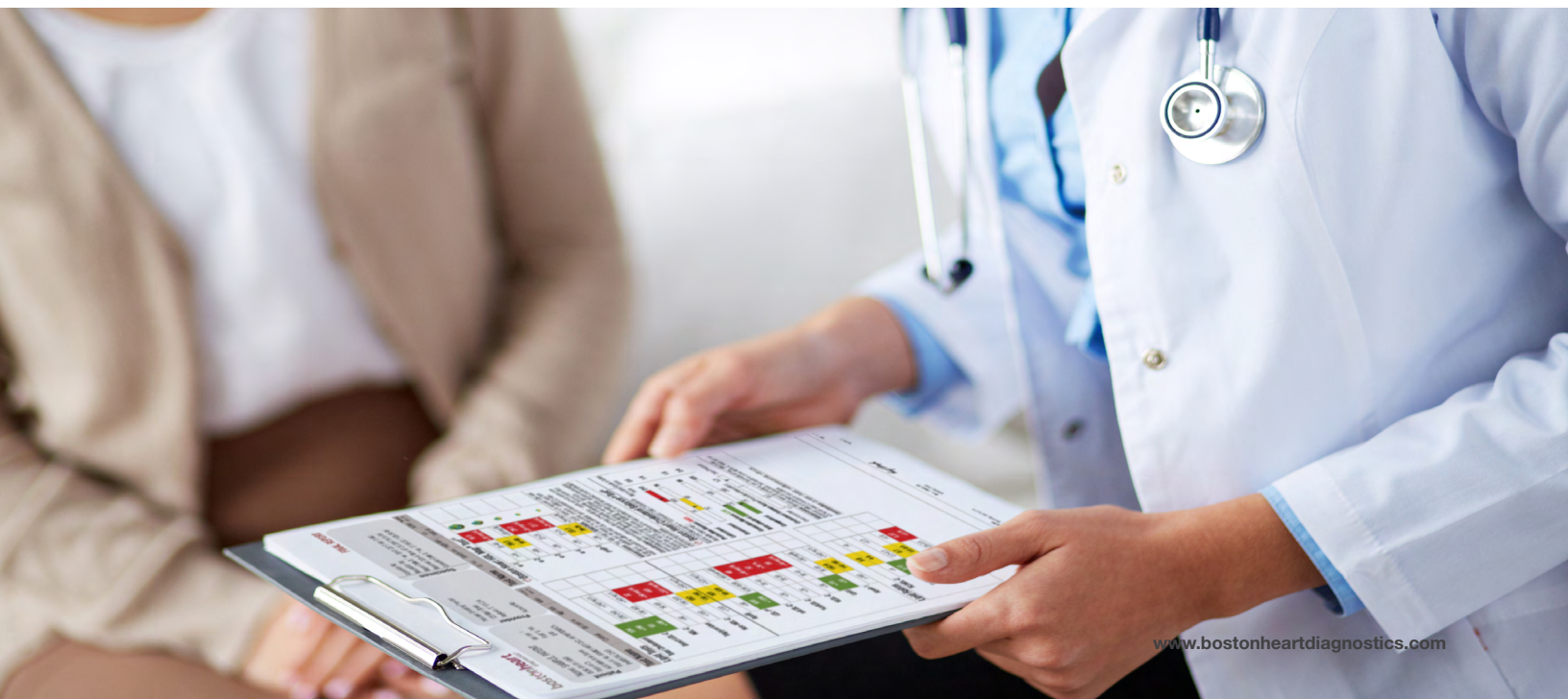
Monitoring glucose and HbA1c is critical for the prevention, early identification, treatment, and reversal of type 2 diabetes and cardiovascular risk.

## Vitamins and Nutrition

Folate, vitamin B12, homocysteine, uric acid, vitamin D, and CoQ10 are each associated with nutrition and CVD risk, and can be improved with healthy lifestyle choices. When deficiencies are detected, it is important to understand the underlying cause to determine whether supplementation is appropriate to normalize levels.

## Other Chemistries

Thyroid function, electrolytes, kidney function, liver function and other measures of normal metabolic activity are valuable tools for health assessment and patient management.





## PROFILE COMPONENTS

BIOMARKER NAME	NUTRITION & HEALTH	BIOMARKER DESCRIPTION
ORDER CODE	87207	
<b>Lipids</b>		
Total cholesterol	✓	Measures the amount of cholesterol in all cholesterol-containing lipoproteins.
Direct LDL-C	✓	Amount of cholesterol in the atherogenic low-density lipoproteins.
Non-HDL-C	✓	Calculation that represents the cholesterol carried by all atherogenic particles.
HDL-C	✓	Higher levels of HDL are associated with reduced CVD risk, but not all HDL is good.
Triglycerides	✓	Elevated levels increase CVD risk by altering lipoprotein metabolism.
Lipid Ratios	✓	TC/HDL-C is a stronger risk factor than LDL-C or HDL-C. Low HDL-C/TG is associated with insulin resistance.
Fatty Acid Balance	✓	Measures saturated, trans, mono, omega-6, and omega-3 fatty acids. Includes EPA and DHA.
<b>Metabolics</b>		
Glucose	✓	Fasting glucose is a strong predictor of diabetes and CVD risk.
HbA1c	✓	Assesses the average blood glucose over the last two to three months.
<b>Inflammation</b>		
hs-CRP	✓	Acute phase inflammatory protein. Associated with atherosclerosis after excluding other causes.
<b>Hormones</b>		
TSH	✓	TSH regulates thyroid gland function and is useful in screening for hypo and hyperthyroidism.
<b>Vitamins</b>		
Vitamin D	✓	Vitamin D insufficiency is associated with increased mortality, CVD, type 2 diabetes, and osteoporosis.
Vitamin B12	✓	Vitamin B12 is required for proper red blood cell formation, neurological function, and DNA synthesis. Vitamin B12 also functions as a cofactor for homocysteine metabolism.
Folate	✓	Folate is necessary for normal metabolism, brain function, DNA synthesis/methylation, and red blood cell regeneration. An important folate-dependent reaction is the conversion of homocysteine to methionine.
CoQ10	✓	Facilitates energy production within cells and is a potent antioxidant. Statins reduce CoQ10 levels, increasing risk of muscle pain. The severity of heart failure correlates with severity of CoQ10 deficiency.
<b>Chemistries</b>		
Uric Acid	✓	Reflects purine metabolism. High levels are associated with hypertension, CVD, insulin resistance and gout.
Homocysteine	✓	High levels are associated with vitamin B deficiency and increased risks for CVD and dementia.
Comprehensive Metabolic Profile	✓	Includes Na, K, CO2, Cl, BUN, Creat, Glu, Ca, ALT, AST, AlkPhos, Tbil, Alb, TP and eGFR.