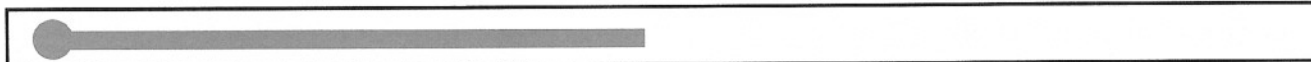


Oxidative Stress/Antioxidant Insufficiency

Taurine		Copper		Manganese		Selenium	
Zinc		Lead		Mercury		Vitamin E	
Vitamin A	L	β -Carotene	X L	Lipid Peroxide	X H	8-OHdG	H
pHPhLac	H	Sulfate					

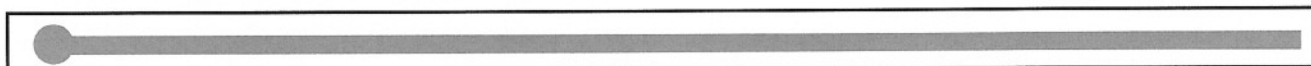


Low significance

High significance

Mitochondrial Functional Impairment

Magnesium	X	CoQ10		Adipate		Suberate	
EtMal	H	Pyruvate	X H	Lactate	H	AHB	X H
BHB	X H	Succinate	X H	Fumarate	X H	Malate	X H



Low significance

High significance

Amino Acid Insufficiency

Arginine	X L	Histidine	X L	Isoleucine		Leucine	
Lysine	X L	Methionine	X L	Phenylalanine	X L	Threonine	X L
Tryptophan	X L	Valine		a-KG		Succinate	X H
Sulfate							

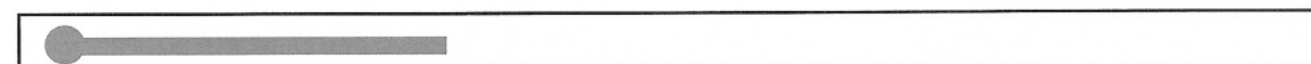


Low significance

High significance

Essential Fatty Acid Insufficiency

ALA		EPA		DHA		LA	
GLA		DGLA	X L	Palmitoleic		Mead	
Triene/Tetra							



Low significance

High significance

Disordered Methyl Group (Single carbon) Transfer

Hcys		Pentadecanoic		Heptadeca		Nonadecanoic	
Tricosanoic	X H	Xanthurenate	X H	Methylmal		FIGLU	H
Kynurenate	X H						



Low significance

High significance