

DIAGNOSTIC GUIDE FOR MYALGIC ENCEPHALOMYELITIS / CHRONIC FATIGUE SYNDROME AND LONG COVID

Level	Test	Purpose / Biomarker	Sample Type	Notes	Price (€)
Basic	Complete blood count (CBC)	Anemia, infections, lymphopenia	Blood	Important to review MCV and RDW	10
	Basic biochemistry	Glucose, urea, creatinine, ions	Blood	Check kidney function and glycemia	15
	Liver function panel	AST, ALT, GGT, ALP, bilirubin	Blood	To rule out hepatitis or liver dysfunction	15
	TSH and free T4	Assess thyroid function	Blood	May mimic or coexist with ME/CFS	20
	Ferritin, iron, transferrin	Rule out functional anemia or iron deficiency	Blood	Ferritin may act as an acute-phase reactant	25
	Vitamin B12 and folic acid	Neurological or hematological fatigue	Blood	Consider both hematological and neurological function	30
	Vitamin D	Immune and muscular status	Blood	Relevant in cases of bone or muscle fatigue	25
	CRP and ESR	Low-grade chronic inflammation	Blood	May be normal	15
	Cortisol (morning / daytime saliva)	HPA axis, adrenal fatigue or chronic stress	Blood or saliva	Useful in cases of morning fatigue	25
	Lipid and glucose profile	Vascular and metabolic risk	Blood	Total cholesterol, LDL, HDL, triglycerides, glucose, insulin and HOMA-IR	25
	ACh receptor antibodies and ANA	Rule out myasthenia or autoimmunity	Blood	Indicated in case of weakness + muscle fatigue	45
	EBV/CMV IgG and IgM serologies	Rule out reactivation or primary infection	Blood	Check IgM and IgG (VCA and EA for EBV) and CMV	40
	TOTAL COST				290
Intermediate	Lymphocyte subpopulations (CD3, CD4, CD8, NK)	Cellular immunity, NK dysfunction	Blood	Altered patterns frequently observed in ME/CFS	75
	CD4/CD8 ratio	Immune imbalance	Blood	May suggest immunosenescence	20
	Erythrocyte vitamins and minerals	Intracellular micronutrient status	Blood	More accurate than serum levels for detecting functional deficiencies	90
	Basic mitochondrial function (lactate, pyruvate, CoQ10, carnitine)	Cellular energy metabolism	Blood	May suggest mitochondrial dysfunction	80
	TOTAL COST				265
Advanced	Cytokine panel (IFN- γ , TNF- α , ILs)	Intracellular inflammation and Th1/Th2 profile	Blood	Elevated IFN- γ is typical in many cases	120
	Immune checkpoints (PD-1, TIGIT)	Immune exhaustion or dysfunction	Blood	Used in advanced research	180
	Tilt table test	Rule out dysautonomia/POTS	Orthostatic test	Very useful if dizziness, syncope or tachycardia are present	150
	2-day CPET (cardiopulmonary exercise test)	Key differential diagnosis for ME/CFS	Exercise + gases + VO2	Gold standard for PEM (post-exertional malaise)	350
	Quantitative PCR herpesviruses (EBV, CMV, HHV-6, HHV-7) and COVID	Active viral load	Blood	Accessible technique but low sensitivity in chronic reactivations	400
	ELISpot for latent viruses (EBV, CMV) and COVID	Detects functional reactivation	Blood	More sensitive than PCR. Detects specific cellular immune response	450
	TOTAL COST				1.650
Very Advanced	Intestinal dysbiosis test (NGS + SCFAs + IgA + zonulin)	Gut barrier and microbiome	Stool	Recommended if digestive symptoms or suspected bacterial translocation	300
	Organic acids in urine	Mitochondrial and energy metabolism	Urine	Indicates patterns of multiple dysfunctions	300
	Blood metagenomics via NGS	Identifies microorganisms in an untargeted way	Blood	Sequencing-based analysis of all non-human genetic material in blood	400
	TOTAL COST				1.000