

Mitochondrial Bioenergetics & Lab Correlation Worksheet

Client Name: _____ Date: _____

Primary Complaint: _____

Section 1: The Mitochondrial Triad (Clinical Presentation)

Assess the client's subjective experience. Check all that apply:

- Exercise Intolerance / PEM:** Does a 20-minute walk or workout cause a "crash" lasting 24+ hours?
 - Brain Fog:** Does the client experience cognitive fatigue or "dimming" after mental exertion?
 - Temperature Dysregulation:** Does the client feel cold or have cold extremities when others are comfortable?
 - Weight Loss Resistance:** Is the client unable to lose weight despite a calorie deficit?
 - Dietary Intolerance:** Does the client feel worse or extremely fatigued on a High-Fat/Ketogenic diet?
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Section 2: OAT Marker & Nutrient Correlation

Input the client's Organic Acid Test (OAT) results to identify enzymatic roadblocks.

OAT Marker	Result (High/Low)	Clinical Significance	Potential Nutrient Need
Citrate / Isocitrate		Block in Aconitase enzyme	Manganese, Antioxidants
Alpha-Ketoglutarate		Krebs Cycle "Stall"	B1, B2, B3, B5, Lipoic Acid
Succinate		ETC Complex II Block	Riboflavin (B2), CoQ10
Adipate / Suberate		Poor Fatty Acid Oxidation	Riboflavin (B2)

OAT Marker	Result (High/Low)	Clinical Significance	Potential Nutrient Need
Ethylmalonate		Fatty Acid "Fuel Pump" Failure	L-Carnitine
Pyruvate / Lactate		Anaerobic Shift (Hypoxia)	B1, B3, CoQ10, ALA

Section 3: Oxidative Damage (The "Exhaust" Test)

Measure the systemic cost of mitochondrial dysfunction.

- **Lipid Peroxides (Urine):** [Value: _]
 - *High indicates mitochondrial membrane "rancidity" and damage.*
- **8-OHdG (DNA Damage):** [Value: _]
 - *High indicates oxidative "rusting" of the genetic blueprint.*

Section 4: Practitioner Reflection & Scoring

Mitochondrial Priority Level (Circle One): * **LOW:** Normal recovery, high metabolic flexibility, low oxidative markers. * **MODERATE:** Occasional brain fog, some OAT imbalances, requires B-complex support. * **CRITICAL:** Post-Exertional Malaise (PEM) present, high 8-OHdG, anaerobic shift (High Lactate).

Key "Aha!" Moment for Client: (e.g., *"Your weight loss resistance is a 'fuel pump' issue (Carnitine), not a willpower issue."*)

Next Steps:

1. _____
2. _____
3. _____

