



THE SOLINGER METHOD

by Root Health L.L.C.

FUNCTIONAL WELLNESS SUPPORT PLAN

Insulin Resistance Protocol

Root Health L.L.C. | The Solinger Method

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Root-Cause Flow, quick map

Insulin Resistance → Impaired Glucose Uptake → Compensatory Hyperinsulinemia → Metabolic Stress → Inflammation → Hormonal Disruption & Weight Dysregulation

Key clinical signals:

- Fatigue after meals, carb cravings, midsection weight gain
 - High fasting insulin with normal or high glucose
 - Elevated triglycerides, low HDL
 - Acanthosis nigricans
 - Irregular cycles or low ovulation (female physiology)
 - Low testosterone, low SHBG (male or female physiology)
 - Afternoon crashes, irritability between meals, waking at 2–3 AM
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Common Drivers

Microbial:

- Endotoxin load from dysbiosis
- Low Akkermansia, low Bifido/Lacto keystones
- SIBO, fungal overgrowth contributing to inflammatory signaling

Dietary:

- High glycemic load meals
- Low protein, low fiber patterns
- High snacking frequency
- High omega-6 intake

Hormonal:

- Cortisol dysregulation
- Low DHEA, low testosterone
- Estrogen dominance or progesterone decline
- Poor sleep architecture

Mitochondrial:

- Low thiamine, low magnesium, low carnitine
- Impaired glucose oxidation

Inflammatory:

- High CRP, environmental burdens, chronic stress
- Sedentary lifestyle



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Goals

- Improve insulin sensitivity
- Stabilize post-meal glucose curve
- Increase muscle glucose uptake
- Rebuild metabolic flexibility
- Reduce inflammatory burden
- Normalize hormone signaling
- Restore energy stability, appetite regulation, and sleep quality

Nutrition

Protein target:

1.2–1.6 g/kg/day minimum for insulin sensitivity, lean mass preservation, and satiety regulation.

Fiber target:

30–40 grams/day, 12–15 grams soluble.

Sources, identical format to your guide:

- Ground flax 2 Tbsp/day
- Chia, oats, lentils, beans

- Kiwi, berries, pears
- Psyllium ½ tsp titrated to 1 tsp BID if tolerated

Carbohydrates:

- Pair all carbs with protein
- Emphasize slow, complex starches
- Cold potatoes or chilled rice for resistant starch
- Limit high-glycemic grains, juices, dried fruit, baked goods

Fats:

- Olive oil, avocado, nuts/seeds
- Avoid seed oil heavy meals

Meal timing:

- Three anchored meals, optional protein-based snack
- 12 hour overnight fast
- Avoid grazing to reduce hyperinsulinemia

Hydration + minerals:

- Clear to pale urine
- Magnesium glycinate **300–400 mg HS** unless contraindicated
- Electrolytes if fatigue or salt craving present



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Phase 1, Weeks 0–4

Stabilize & Rebuild

Lifestyle Foundations

- Post-meal walks 10 minutes after each meal
- 7–8.5 hours sleep minimum
- Morning sunlight 5–10 minutes
- Strength training 2–3 days per week to increase GLUT4 activity

Core Supplements

(Structured parallel to your Phase 1 supplement layout)

1. Magnesium Glycinate

- **300–400 mg HS**
- Why: improves insulin sensitivity, calms HPA axis, supports glucose uptake

2. **Inositol(Myo-InositolorMyo+D-Chiro40:1ratio)**
 - **2–4grams/day**
 - Why: improves insulin signaling, ovarian function, reduces post-meal glucose spikes
 3. **Vitamin D3 + K2**
 - Dose per labs
 4. • Why: Vitamin D receptors modulate insulin receptor function
Thiamine (Benfotiamine or TTFD)
 - **150–300 mg/day**
 5. • Why: restores carbohydrate oxidation, reduces fatigue and crashes after meals
Protein stabilization
 - Minimum **30 grams protein** at breakfast
 - Why: lowers day-long glucose curve
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Phase 2, Weeks 4–12

Deep Metabolic Reset

1. **Berberine**
 - **500mgBID orTID** with meals
 - Why: activates AMPK, improves insulin sensitivity, modulates microbiome
 - Note: safe language maintained per NH
2. **Omega-3 concentrate**
 - **1–2 grams EPA+DHA/day**
 - Why: reduces inflammatory insulin blockade
3. **Probiotics, targeted**
 - **Lactobacillus rhamnosus GG** 10–20B CFU
 - **Bifidobacterium longum** 10–20B CFU
 - Why: improves insulin signaling and reduces gut-derived inflammation
(same strain presentation style as your β -G plan)
4. **Prebiotic fibers**
 - PHGG 3–5 grams/day
 - RS powder 1–2tsp HS
 - Why: improves glycemic control, feeds SCFA producers
5. **Alpha Lipoic Acid (ALA, R-ALA prefer)**
 - **100–300 mg/day**
 - Why: improves glucose uptake and nerve function
6. **Carnitine (ALCAR or L-carnitine tartrate)**
 - **500–1,000 mg/day**
 - Why: supports mitochondrial fat oxidation
7. **Chromium (optional)**
 - **200–400 mcg/day**
 - Why: supports insulin receptor activity



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Quick Interaction Map

- **Protein+ fiber** lowers glucose curve and increases satiety
- **Magnesium+inositol** improve insulin receptor sensitivity
- **Berberine +ALA** increase GLUT4-mediated glucose uptake
- **Prebiotics +probiotics** reduce endotoxin load that impairs insulin signaling
- **Strength training** increases skeletal muscle insulin uptake
- **Thiamine +carnitine** repair mitochondrial glucose oxidation
- **Vitamin D** improves receptor function and immune-metabolic regulation

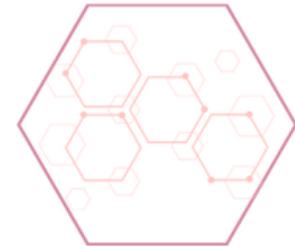
Foods to emphasize

Daily:

- Lean proteins, eggs, Greek yogurt
- Berries, citrus, kiwi, pears
- Brassicas, leafy greens, garlic-onion-leeks
- Olive oil, nuts/seeds, avocado
- Oats, lentils, chickpeas, quinoa

Weekly:

- Broccoli sprouts
- Cold potatoes and rice for resistant starch
- Fermented foods if tolerated
- Salmon or sardines 2–3 times weekly



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Foods to limit for 8–12 weeks

- Refined sugar
 - White bread, pastries, crackers
 - Fruit juices, sweetened beverages
 - Excessive dairy if inflammatory
 - High glycemic baked goods
 - Ultra-processed snacks
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Symptom Tracking Targets

- Fasting glucose trending 80–90
 - Fasting insulin trending 4–8
 - Fewer post-meal crashes
 - 20–40 percent reduction in cravings by week 4–6
 - Improved sleep, more stable energy
 - Waist circumference trending downward
 - PMS, irritability, or mid-cycle symptoms improving
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Retest

- **Re-test fasting glucose, fasting insulin, HOMA-IR, HbA1c** at weeks **8–12**
 - Adjust per symptom trend, not single values
 - Optional: lipid panel, hs-CRP, vitamin D, CMP
 - If cortisol suspected, consider morning cortisol or DUTCH-style rhythm review
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Medication & Safety Notes

- Berberine may interact with some medications and may alter absorption patterns
- ALA may lower glucose, monitor for changes in glucose-lowering therapy
- Avoid high-dose interventions in pregnancy/lactation
- If loose stools occur with prebiotics, reduce dose or switch to PHGG
- Monitor symptoms rather than chasing perfect numbers



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