

Women 40–50 — Weight Maintenance Stack

Purpose

In their forties, women often face perimenopausal changes such as irregular cycles, declining progesterone, creeping insulin resistance, and higher stress loads. After weight loss, the biggest challenge is preventing **weight rebound** while protecting bone, muscle, and hormonal health. This stack is designed to:

- Maintain metabolic flexibility and appetite control
- Stabilize hormonal rhythms during perimenopause
- Preserve lean mass, bone density, and connective tissue
- Support cardiovascular resilience
- Improve sleep, which helps regulate appetite hormones (ghrelin, leptin, GLP-1)

System-by-System Optimization

Metabolic / Appetite Control (Score: 10/10)

Berberine: Insulin mimetic that maintains glucose control and AMPK activity, reducing fat regain risk. **~0.4 mg/lb/day split with meals.**

Chromium Picolinate: Improves insulin receptor signaling and stabilizes appetite. **200–400 mcg/day.**

Fiber (Psyllium, Acacia, Inulin): Improves satiety, lowers glycemic variability, and nourishes gut microbiome. **0.2–0.3 g/lb/day total fiber.**

Probiotics (≥25B CFU): Maintain microbiome composition that helps regulate appetite and reduce weight rebound. **Per label.**

Endocrine / Hormonal (Score: 10/10)

Vitamin D3 + K2 (MK-7): Supports bone density, immune balance, and menstrual hormone regulation. **30–40 IU/lb/day D3 + 100 mcg/day K2.**

Myo-Inositol: Enhances ovarian insulin sensitivity, stabilizing cycles and reducing PMS during perimenopause. **50–100 mg/lb/day.**

Ashwagandha: Lowers cortisol, improves stress adaptation, and enhances sleep. **1.5–2 mg/lb/day.**

Vitex (Chasteberry): Helps regulate progesterone levels in women with irregular cycles or PMS. **20–40 mg/day standardized extract.**

Lean Mass & Connective Tissue (Score: 10/10)

Essential Amino Acids (EAAs): Sustain MPS to preserve lean mass even with variable training loads. **0.05–0.08 g/lb/day.**

Whey Isolate: Leucine-rich protein to ensure daily protein adequacy. Total protein: **0.8–1.0 g/lb/day.**

Collagen Peptides: Provide glycine-rich amino acids for tendons, ligaments, skin, and hair. **0.05–0.06 g/lb/day.**

Vitamin C: Cofactor for collagen hydroxylation and antioxidant defense. **2–3 mg/lb/day.**

Silica: Supports bone density and collagen cross-linking. **0.5–1 mg/lb/day.**

Omega-3 (EPA/DHA): Anti-inflammatory lipid that supports cardiovascular and joint health. **25–30 mg/lb/day.**

Calcium (if diet is insufficient): Preserves bone mineral density during declining estrogen. **500–800 mg/day supplemental if <1000 mg dietary intake.**

Neurocognitive / Stress Balance (Score: 10/10)

Lion's Mane Mushroom: Promotes NGF, improving cognition, memory, and mood during perimenopause. **3–4 mg/lb/day extract.**

L-Theanine: Reduces stress-related eating by calming excitatory neurotransmission. **100–200 mg/day.**

Immunologic / Anti-inflammatory (Score: 10/10)

Curcumin (with Piperine): Suppresses NF- κ B, lowering inflammation and joint pain. **0.8–1 mg/lb/day.**

Quercetin: Antioxidant that stabilizes mast cells, reduces oxidative stress, and supports vascular health. **2–3 mg/lb/day.**

Sleep / Recovery (Score: 10/10)

Magnesium L-Threonate: Improves cognition, reduces insomnia, and enhances sleep architecture. **8–10 mg/kg/night.**

Apigenin: Flavonoid that binds GABA-A receptors to shorten sleep latency. **50 mg/night.**

Glycine: Deepens slow-wave sleep and lowers core temperature. **0.02–0.03 g/lb/night.**

Tart Cherry Extract: Provides natural melatonin and anthocyanins, extending sleep cycles and reducing soreness. **~5 mg/lb/night.**

Daily Routine

Morning (8 AM): Omega-3, Vitamin D3/K2, Berberine (first dose), Myo-Inositol, Lion's Mane.

Midday (12 PM): Collagen + Vitamin C, Silica, Fiber + Probiotic, EAAs or Whey, Calcium (if needed).

Afternoon (4 PM): Berberine (second dose), Ashwagandha, Chromium, Curcumin, Quercetin, Vitex.

Evening (9 PM): Magnesium L-Threonate, Glycine, Apigenin, Tart Cherry Extract.

Disclaimer

This guide is for educational purposes only. It does not constitute medical advice, diagnosis, or treatment, and it does not establish a doctor–patient relationship. Supplementation, dosing, and timing should be personalized under the supervision of a qualified healthcare provider. Always consult your physician before beginning any new supplement regimen.