

Men 40–50 — Muscle-Building Stack

Purpose

In the forties, testosterone and growth hormone decline faster, recovery windows widen, and connective tissue tolerance narrows. The stack fortifies anabolic signaling, limits catabolic cortisol, preserves joints, and maintains cardiometabolic resilience so you can still add muscle with intelligent recovery.

System-by-System Optimization

Musculoskeletal / Anabolic Drive (Score: 10/10)

Creatine monohydrate: Strength/volume driver that also supports cognition. Dose: **0.05 g/lb/day**.

Beta-alanine: High-rep buffering for productive hypertrophy sets. Dose: **0.03–0.04 g/lb/day**.

EAA: Overcome lower meal frequency/anabolic blunting; peri-workout. Dose: **0.05–0.1 g/lb**.

Whey isolate: Fast MPS trigger; total protein **0.8–1.0 g/lb/day**.

Collagen peptides + Vitamin C: Tendon/ligament matrix support under heavier loads. Dose: **0.06 g/lb + 3 mg/lb Vitamin C**.

Silica: Collagen crosslinking and bone support. Dose: **1 mg/lb/day**.

Endocrine / Hormonal (Score: 10/10)

Vitamin D3 + K2: Androgen, muscle, bone synergy. Dose: **40–60 IU/lb + 100 mcg/day**.

Zinc + Copper: Steroidogenesis + enzymatic balance. Dose: **0.2 mg/lb + 0.01 mg/lb/day**.

Ashwagandha: Cortisol control and strength/testosterone support. Dose: **2 mg/lb/day**.

Tongkat ali: LH support to maintain T in this decade. Dose: **1.2 mg/lb/day**.

Cistanche: Increases AR sensitivity for better response to training. Dose: **3 mg/lb/day**.

Boron: Lowers SHBG to raise free T. Dose: **0.1 mg/lb/day**.

DHEA (if labs indicate): Supports declining adrenal androgens. Dose: **5–25 mg/day under supervision**.

Phosphatidylserine: Blunts exercise-induced cortisol peaks that impair MPS. Dose: **1–2 mg/lb/day**.

Cellular / Mitochondrial (Score: 10/10)

NMN: NAD⁺ support for energy/recovery. Dose: **0.5–1 mg/lb/day**.

R-ALA: Better insulin sensitivity/glycogen replenishment. Dose: **0.5–1 mg/lb/day**.

Acetyl-L-carnitine: Fatty-acid transport and CNS drive. Dose: **6–8 mg/lb/day**.

Rhodiola: Anti-fatigue and resilience for consistent volume. Dose: **1 mg/lb/day**.

Neurocognitive / Training Focus (Score: 10/10)

L-Tyrosine: Catecholamine precursor for high-quality sessions. Dose: **5–7 mg/lb pre-workout**.
Caffeine + L-theanine: Strength/alertness with smoother arousal. Dose: **2–3 mg/kg + 100–200 mg**.

Lion's mane: NGF support. Dose: **3–5 mg/lb/day**.

CDP-choline + Alpha-GPC: Cholinergic NMJ efficiency. Dose: **1.5 mg/lb + 2 mg/lb/day**.

Cardiovascular / Recovery (Score: 10/10)

Omega-3 (EPA/DHA): Inflammation control and joint comfort. Dose: **30–35 mg/lb/day**.

CoQ10 (ubiquinol): Myocardial energy, especially relevant if on statins. Dose: **1–1.5 mg/lb/day**.

Magnesium glycinate: Glucose handling, relaxation, sleep quality. Dose: **4–5 mg/lb/night**.

Bergamot extract: Lipid control supportive of higher-calorie bulks. Dose: **2–3 mg/lb/day**.

Aged garlic extract: BP and arterial elasticity support. Dose: **3–4 mg/lb/day**.

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

Curcumin (with piperine): DOMS and joint irritation down-regulation. Dose: **~1 mg/lb/day**.

Quercetin: Antioxidant and mast-cell modulation. Dose: **3–4 mg/lb/day**.

Reishi: Immune balance under chronic loading. Dose: **6–7 mg/lb/day**.

Sleep / Growth (Score: 10/10)

Magnesium L-threonate: Sleep architecture and cognition. Dose: **~10 mg/kg/night**.

Apigenin: Sleep latency reduction. Dose: **50 mg/night**.

Glycine: Deep sleep and collagen support. Dose: **0.02–0.03 g/lb/night**.

Tart cherry extract: Melatonin/polyphenols for longer cycles. Dose: **~6 mg/lb/night**.

Daily Routine

Morning: NMN, Rhodiola, ALCAR, Omega-3, D3/K2, CoQ10, Bergamot, Aged garlic, Lion's Mane, CDP-choline, Alpha-GPC.

Pre-workout: Creatine, Beta-alanine, L-tyrosine, Caffeine + L-theanine, EAAs (half dose).

Post-workout: Whey isolate; Collagen + Vitamin C; EAAs remainder.

Midday/with meals: R-ALA, Curcumin, Quercetin, Silica; Zinc + Copper; Cistanche; Boron; Phosphatidylserine.

Evening: Magnesium glycinate, Magnesium L-threonate, Glycine, Apigenin, Tart cherry.

If indicated: DHEA per labs and physician oversight.

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.

