

Women 50–60 — Anti-Aging Stack

Purpose

By the fifties, most women are in menopause. The drop in estrogen accelerates collagen loss, bone resorption, cardiovascular risk, and metabolic decline. Cellular aging processes — mitochondrial dysfunction, telomere shortening, and accumulation of senescent cells — become more pronounced. This stack is designed to:

- Slow telomere attrition and protect DNA
- Restore NAD⁺ and mitochondrial efficiency
- Clear senescent “zombie” cells that drive inflammation
- Support bone, skin, and joint integrity
- Preserve cognition and sleep quality
- Counter chronic inflammation and oxidative stress

System-by-System Optimization

DNA / Cellular Longevity (Score: 10/10)

NMN (Nicotinamide Mononucleotide): Restores NAD⁺, fueling sirtuins and PARP enzymes that repair DNA and regulate mitochondrial health. **0.5–1 mg/lb/day.**

Resveratrol: Activates SIRT1, mimics caloric restriction, and enhances mitochondrial biogenesis. **2 mg/lb/day.**

Pterostilbene: More bioavailable than resveratrol; enhances sirtuin signaling and combats oxidative stress. **0.6 mg/lb/day.**

Astragaloside IV: Activates telomerase, slowing telomere shortening and supporting genomic stability. **2–3 mg/lb/day.**

Fisetin: Senolytic polyphenol that clears senescent cells, improving tissue regeneration and lowering “inflammaging.” **4–5 mg/lb/day for 2 consecutive days/month.**

Quercetin: Works synergistically with fisetin as a senolytic; also stabilizes mast cells and provides daily antioxidant support. **3–4 mg/lb/day.**

Endocrine / Hormonal (Score: 10/10)

Vitamin D3 + K2: Critical for bone preservation, immune regulation, and cardiovascular protection in postmenopause. **40–60 IU/lb/day D3 + 100 mcg/day K2.**

Zinc + Copper: Zinc supports immune and tissue repair, copper balances zinc and supports collagen enzymes. **Zinc 0.15 mg/lb/day + Copper 0.01 mg/lb/day.**

Ashwagandha: Adaptogen lowering cortisol, improving sleep, and supporting thyroid regulation. **1.5–2 mg/lb/day.**

DHEA (if indicated by labs): Replaces declining adrenal androgens; can improve energy, libido, and lean mass. **5–25 mg/day under supervision.**

Cellular / Mitochondrial (Score: 10/10)

R-Alpha-Lipoic Acid (R-ALA): Improves insulin sensitivity, regenerates glutathione, and reduces oxidative stress. **0.5–1 mg/lb/day.**

Acetyl-L-Carnitine (ALCAR): Transports fatty acids into mitochondria; improves cognition and endurance. **5–6 mg/lb/day.**

Rhodiola Rosea: Adaptogen that stabilizes mood, reduces fatigue, and supports mitochondrial energy. **0.8–1 mg/lb/day.**

CoQ10 (Ubiquinol): Fuels mitochondrial ATP production, essential for cardiac and skeletal muscle. **1–2 mg/lb/day.**

Neurocognitive (Score: 10/10)

Lion's Mane Mushroom: Stimulates NGF, supporting memory, cognition, and mood stability. **3–4 mg/lb/day extract.**

CDP-Choline + Alpha-GPC: Enhance acetylcholine levels, supporting attention, memory, and executive function. **CDP 1 mg/lb/day + Alpha-GPC 1.5 mg/lb/day.**

Phosphatidylserine: Improves cortisol regulation and memory consolidation. **1–2 mg/lb/day.**

Astaxanthin: Protects against oxidative damage in the brain, eyes, and skin. **0.05 mg/lb/day.**

Musculoskeletal / Bone & Skin (Score: 10/10)

Collagen Peptides: Replenish skin, bone, and joint collagen lost after menopause. **0.05–0.06 g/lb/day.**

Vitamin C: Required for collagen hydroxylation and tissue repair. **2–3 mg/lb/day.**

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

Calcium (if diet is insufficient): Essential for bone mineralization as estrogen declines. **500–800 mg/day supplemental if diet <1000 mg/day.**

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

Curcumin (with Piperine): Potent NF- κ B inhibitor that lowers chronic inflammation and supports joint comfort. **0.8–1 mg/lb/day.**

Quercetin (daily use): Provides antioxidant and mast-cell stabilization outside of senolytic pulses. **2–3 mg/lb/day.**

Probiotic (≥ 25 B CFU): Improves gut microbiome diversity, regulates estrogen metabolites, and reduces inflammation. **Per label.**

Sleep / Recovery (Score: 10/10)

Magnesium L-Threonate: Improves brain magnesium, restoring slow-wave sleep and cognition. **8–10 mg/kg/night.**

Apigenin: Calms the nervous system via GABA-A receptors, promoting relaxation and shorter sleep latency. **50 mg/night.**

Glycine: Lowers core body temperature, deepens deep sleep, and supports collagen repair. **0.02–0.03 g/lb/night.**

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

Melatonin (if needed): Restores circadian rhythm as endogenous melatonin production declines. **0.3–1 mg/night.**

Daily Routine

Morning (8 AM): NMN, Resveratrol, Pterostilbene, Omega-3, Vitamin D3/K2, CoQ10, Ashwagandha, Lion's Mane, CDP-Choline, Alpha-GPC.

Midday (12 PM): Myo-Inositol (if included), R-ALA, ALCAR, EGCG, Collagen + Vitamin C, Silica, Calcium (if needed).

Afternoon (4 PM): Fisetin (on senolytic days), Quercetin, Rhodiola, Curcumin, Probiotic.

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

Monthly Senolytic Pulse: Fisetin 4–5 mg/lb/day for 2 days with Quercetin.

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.