UROLITHIN A: POSTBIOTIC OA PROTECTION

Core Therapeutic Mechanism

Urolithin A (UA) provides significant protection against Osteoarthritis (OA) markers by enhancing **mitochondrial quantity and quality** in chondrocytes (cartilage cells).

Beneficial effects stem from a dual-action mechanism: **improved mitochondrial health** and **reduced systemic inflammation**.

Clinical Evidence

Randomized trials in middle-aged adults demonstrate:

- Increased muscle strength
- Improved exercise performance
- Enhanced health biomarkers

Strategies for Increasing Urolithin A Production

Dietary Sources: **Pomegranates, Raspberries, Walnuts, Blackberries, Strawberries.**

Target Dosage: **1000mg per day**.

Microbiome Factor: **Akkermansia** muciniphila promotes the natural production of UA from dietary precursors.



Source: Urolithin A improves muscle strength, performance, and biomarkers. https://doi.org/10.1016/j.xcrm.2022.100633

UROLITHIN A - MECHANISM OF ACTION

UROLITHIN A MOA: SYSTEMIC BENEFITS

- **1. Gut conversion:** Microbiome transforms dietary precursors into UA.
- **2. Systematic Delivery:** UA circulates in the bloodstream.
- **3. Target Organs:** Enhanced cellular health and function across key systems.

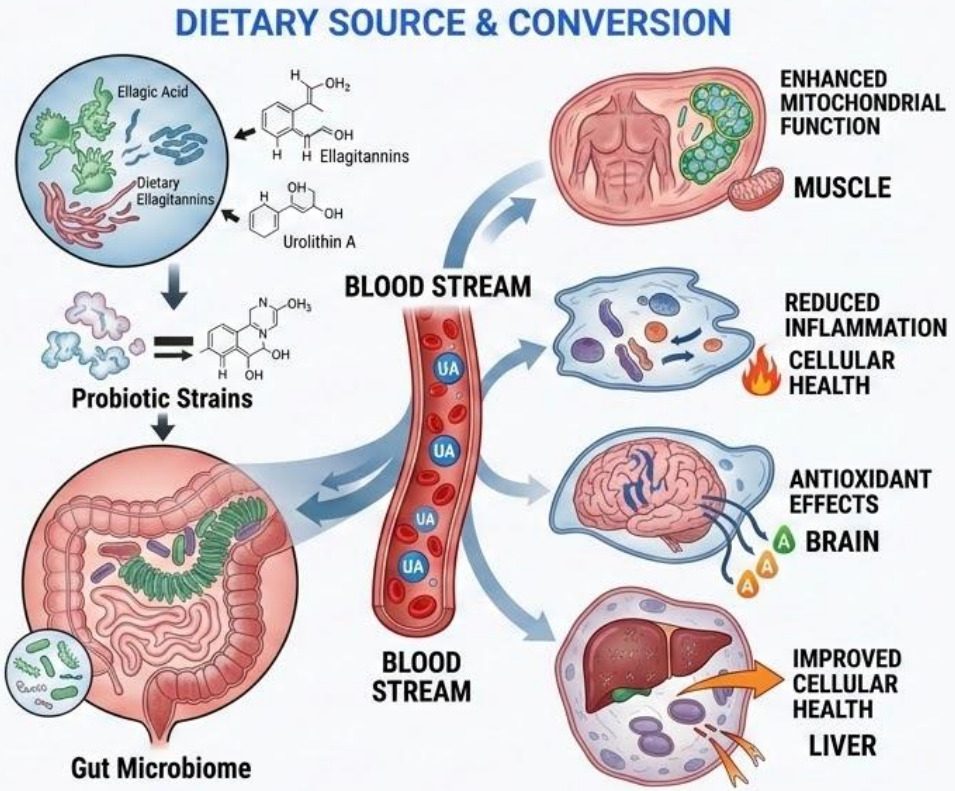


Figure adapted from multiple studies

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