

Medical Fact Check Report

Generated:

2025-12-10 11:57:49

Analysis System: MedicalFactChecker (Independent Bio-Investigator)

Analysis Cost: \$0.2546

Duration: 346.7s

Subject

Topic:

supplementation for muscle gain with less risks

Analysis Started: 2025-12-10 11:52:02

Phases Completed: 3

Analysis Pipeline

Phase 1: Conflict Scan

Timestamp:

2025-12-10 11:53:05

User Choice: Both

Key Findings:

- Official Narrative: **Position Statement:**
- **Protein sufficiency through diet alone** (0.8-1.6g/kg bodyweight)
- **Creatine monohydrate** as the only supplement with robust evidence (ISSN position: safe and effective)...
- Counter Narrative: **Core Thesis:**
- A. Protein Requirements Are Systematically Underestimated**
- Morton et al. (2018) meta-analysis in *British Journal of Sports Medicine* found 1.6g/kg is the lower threshold for tra...

Token Usage:

3145 tokens

Phase 2: Evidence Stress Test

Timestamp:

2025-12-10 11:54:27

User Choice: Proceed

Key Findings:

- Industry Funded Studies: **Creatine Research:**
- **Glanbia (Optimum Nutrition), Iovate (MuscleTech)** fund protein timing studies
- **Red flag:** 2013-2017 studies overstated anabolic window importance
- **Concern:** Small s...
- Independent Research: **Epicatechin:**
- Morton et al. (2018) - Protein Meta-Analysis:**
- **Funding:** Canadian Institutes of Health Research (government)
- **Sample:** 49 studies, 1,863 participants
- **Finding:** 1.6g/k...
- Methodology Quality: 1. **Protein recommendations remain anchored to 1980s nitrogen balance studies** despite modern evidence showing

2.0-2.5g/kg benefits in trained individuals

2. Micronutrient deficiencies (magnesium,...

- **Anecdotal Signals:** - Verdict: **Cheap, safe, mechanistically sound; warrants trial**

8. Boron (TESTOSTERONE OPTIMIZATION)

- Naghii et al. (2011, *Journal of Trace Elements in Medicine and Biology*):

- **10mg/day...**

- **Time Weighted Evidence:** - **Taurine deficiency accelerates aging in mice**

- **Supplementation extended lifespan 10-12%**

- Human data: **Observational only (low taurine = higher mortality)**

- Mechanism*: Osmolyte, antioxi...

Token Usage:

6685 tokens

Phase 3: Synthesis Menu

Timestamp:

2025-12-10 11:56:16

User Choice: P

Key Findings:

- Biological Truth: ### **The Ancestral Mismatch Framework**

Modern muscle-building occurs in a biochemically hostile environment our genes never encountered:

Environmental Stressors (Unaccounted in Official Guidelines...

- **Industry Bias:** - Distortion: **Overemphasis on whey timing ("anabolic window")**

- **2013-2017 studies (Glanbia-funded) claimed 30-min post-workout window**

D. Pharmaceutical Suppression of Nutraceuticals

- Patt...
- Grey Zone: ### **Tier 3A: Strong Mechanism, Weak Human Data**
- 1. Boron (6-9mg/day)**
- **Evidence:** Naghii et al. (2011): 28% free testosterone increase in 1 week (n=8)
- **Mechanism:** Inhibits SHBG, reduces...

Token Usage:

7875 tokens

Final Output

See the detailed output file for the complete analysis.

Report Generated By:

MedicalFactChecker

Timestamp: {datetime.now().isoformat()}

DISCLAIMER:

This analysis is for research and educational purposes. It provides critical analysis of medical literature but does not constitute medical advice.

Always consult qualified healthcare professionals.