

# Formula Category Guide

50 Common Supplement Categories  
Ingredient Stacks · Dosages · Market Insights

This guide covers the most commercially significant supplement categories globally, with standard ingredient stacks, typical clinical dosages, biological mechanisms, and retail market positioning guidance. Use it as a reference when developing your product concept or selecting from NuCoreBio's formula catalog.

■ NuCoreBio has validated, GMP-certified formulas ready to brand in most categories below. Contact us for the full catalog: [Mc5896538@outlook.com](mailto:Mc5896538@outlook.com) | [nucorebio.com](https://nucorebio.com)

Category	Market Size (Global)	Growth Rate	Top Markets	NuCoreBio Formulas
Men's Health	\$8.4B	+7.2% CAGR	US, EU, AU	8 formulas
Women's Wellness	\$6.1B	+8.1% CAGR	US, UK, AU	7 formulas
Cognitive / Brain	\$7.8B	+11.3% CAGR	US, EU, JP	6 formulas
Anti-Aging / Collagen	\$5.5B	+9.4% CAGR	US, EU, CN	9 formulas
Immune Support	\$9.2B	+6.8% CAGR	US, EU, SEA	6 formulas
Sports & Recovery	\$22.4B	+8.9% CAGR	US, UK, AU	5 formulas
Metabolic / Weight	\$6.8B	+7.5% CAGR	US, EU	4 formulas
Sleep & Stress	\$4.2B	+13.1% CAGR	US, EU, AU	5 formulas

## Men's Health & Performance

Testosterone · Vitality · Libido · Stamina

### Market Overview

Men's health supplements represent one of the fastest-growing segments globally, driven by increasing awareness of testosterone decline, stress-related fatigue, and consumer preference for natural alternatives to pharmaceutical interventions. The primary buying demographic is men aged 35–60 in North America, Western Europe, and Australia.

### Standard Ingredient Stack & Dosages

Ingredient	Standard Dose	Specification	Mechanism	Evidence Level
Tongkat Ali (Eurycoma)	200–400mg	Eurycomanone ≥1%, 200:1	LH stimulation → testosterone	★★★★■
Ashwagandha (KSM-66®)	300–600mg	Withanolides ≥5%	Cortisol reduction → T support	★★★★★
Fenugreek Extract	300–500mg	Saponins ≥50%	Inhibits SHBG binding of T	★★★★■
Zinc (as Zinc Bisglycinate)	10–30mg	Highly bioavailable chelate	Testosterone synthesis cofactor	★★★★★
Maca Root Extract	1000–3000mg	10:1 extract preferred	Libido, energy, adaptogenic	★★★██
D-Aspartic Acid	2000–3000mg	Pure D-isomer	LH and FSH release stimulation	★★★██
Vitamin D3 (Cholecalciferol)	1000–4000 IU	Oil-based softgel preferred	Testosterone receptor expression	★★★★■
Boron (Glycinate)	3–10mg	Chelated form	Free testosterone elevation	★★★██
Black Pepper Extract	5mg	Piperine ≥95%	Bioavailability enhancer	★★★★■

■ Market Insight: Men's health formulas with ≥3 evidence-backed actives and perceivable effects within 24 hours command 40–60% higher retail price points. Stack completeness and extract quality ratio (e.g. 200:1 vs 10:1 Tongkat Ali) are key differentiators in the premium segment.

### Retail Positioning Guidance

Positioning Tier	Key Claims	Target Price (60ct)	Key Differentiators
Entry / Mass Market	Natural T-support, energy	\$15–\$25	Price, availability, simple formula
Mid-Range	Clinically-inspired, 24hr effect	\$30–\$50	Quality actives, dosage transparency
Premium	Doctor-formulated, bioavailable actives	\$55–\$90	KSM-66®, 200:1 ratios, COA published
Super-Premium	Pharmaceutical-grade purity, studies	\$90+	HPLC verification published, unique IP

## ■ Women's Wellness & Hormonal Balance

*Hormones · Mood · Cycle · Fertility*

### Market Overview

Women's wellness supplements span three distinct life-stage segments: reproductive health (20–40), peri-menopause (40–52), and post-menopause (52+). Each segment has different ingredient needs. The category is experiencing 8%+ CAGR driven by clean-label demand, hormone-specific formulations, and increasing awareness of phytoestrogens and adaptogens.

Ingredient	Dose	Specification	Target Segment	Primary Benefit
Red Clover Isoflavones	40–160mg	Isoflavones ≥40%	Peri/Post-menopause	Phytoestrogenic support
Shatavari Root Extract	300–600mg	20:1 extract	All women	Adaptogen, hormonal balance
Vitex Agnus-Castus	150–240mg	Agnuside ≥0.5%	Reproductive (20–40)	PMS, cycle regulation (LH)
Maca (Peruvian) Root	1500–3000mg	4:1 extract	Peri-menopause	Estrogen balance, libido, energy
DIM (Diindolylmethane)	100–300mg	Standardized DIM	All women	Estrogen metabolite balance
Ashwagandha	300–600mg	Withanolides ≥5%	All women	Cortisol, stress, thyroid support
Evening Primrose Oil	500–1000mg	GLA ≥8%	Peri-menopause	Breast tenderness, hot flash support
Iron (Bisglycinate)	18–27mg	Chelated — gentle on gut	Reproductive age	Menstrual iron replenishment
Folate (5-MTHF)	400–800mcg	Methylated form	Conception / pregnancy	Neural tube, fertility support

■ Market Insight: Life-stage segmentation is critical in women's wellness. A 'women's hormone balance' formula targeting ages 25–35 requires different actives than a peri-menopause formula. Brands that clearly segment their audience command 2–3x higher conversion rates.

# ■ Cognitive Enhancement & Brain Health

*Focus · Memory · Clarity · Neuroprotection*

## Market Overview

The nootropic / cognitive supplement market is the fastest-growing supplement category globally at 11%+ CAGR. Key drivers: remote work proliferation, academic performance demand, aging population, and biohacker culture. The segment spans casual 'focus' consumers through to serious biohackers with deep ingredient knowledge — requiring very different messaging.

Ingredient	Dose	Specification	Mechanism	Speed of Effect
Lion's Mane Mushroom	250–1000mg	8:1 extract, ≥30% polysaccharides	NGF stimulation → neuroplasticity	Chronic (2–4 weeks)
Bacopa Monnieri	150–300mg	Bacosides ≥45–55%	Acetylcholine modulation, memory	Chronic (4–8 weeks)
Phosphatidylserine (PS)	100–300mg	≥20% from soy or sunflower	Cell membrane integrity, cortisol	Sub-chronic (2 weeks)
Alpha-GPC	150–300mg	≥50% alpha-GPC	Acetylcholine precursor	Acute (30–60 min)
L-Theanine	100–200mg	≥98% purity	GABA modulation, alpha brainwaves	Acute (30–45 min)
Caffeine (natural)	50–200mg	Green tea source preferred	Adenosine antagonist	Acute (15–30 min)
Hericenones (Lion's Mane)	20–60mg	Standardized fraction	Direct NGF induction	Chronic (4+ weeks)
Cognizin® (Citicoline)	125–500mg	Branded ingredient	CDP-choline → acetylcholine	Sub-acute (1–2 weeks)

■ Market Insight: Cognitive supplements split into two commercial archetypes: (1) Acute 'pre-work/study' formulas with fast-acting Alpha-GPC + L-Theanine + Caffeine stacks, and (2) Chronic 'brain builder' formulas with Lion's Mane + Bacopa for long-term neuroplasticity. The most successful products combine both — acute energy with chronic neuroprotection in one formula.

## ■ Anti-Aging, Collagen & Beauty From Within

*Skin · Collagen · Elasticity · Hair · Nails*

### Market Overview

The 'beauty from within' / ingestible beauty segment is growing at nearly 9% annually. Marine collagen peptides are the anchor ingredient globally. Key consumer insight: consumers in this category are highly educated, ingredient-aware, and will research molecular weight, source, and clinical backing before purchasing. 'Collagen is collagen' messaging does not work — specific molecular weight and source claims are essential.

Ingredient	Dose	Specification	Mechanism	Evidence
Marine Collagen Tripeptide	2500–10,000mg	MW < 500 Da, 94%+ absorption	Dermal collagen synthesis stimulation	★★★★★
Hyaluronic Acid (HA)	80–200mg	Low MW (< 300 kDa) for absorption	Dermal hydration, joint lubrication	★★★★■
Astaxanthin	4–12mg	Haematococcus pluvialis, ≥5%	Antioxidant, UV photoprotection	★★★★■
Ceramide (LIPOWHEAT®)	30–60mg	Wheat-derived ceramides	Skin barrier function repair	★★★★■
Vitamin C (Ascorbic Acid)	50–1000mg	Ascorbic acid or Ester-C	Collagen hydroxylation cofactor	★★★★★
Biotin (Vitamin B7)	1000–10,000mcg	D-Biotin form	Keratin synthesis (hair/nails)	★★★★■
Resveratrol	50–200mg	Trans-resveratrol ≥98%	Sirtuin activation, anti-aging	★★★★■
Glutathione (Reduced)	100–500mg	Reduced form or Setria®	Skin brightening, antioxidant master	★★★★■

■ Market Insight: Marine collagen with a verified molecular weight < 500 Da commands a 60–80% retail price premium over standard hydrolyzed collagen. Always publish the molecular weight on the label and in marketing. Source transparency (wild-caught vs. farmed fish) is increasingly demanded by premium segment consumers in Europe and Australia.

## ■ ■ Immune Support & Longevity

*Immunity · Anti-Inflammation · NAD+ · Longevity*

### Market Overview

Immune supplements surged post-2020 and have maintained elevated demand. The segment spans basic immune maintenance (elderberry + zinc) to longevity-focused formulas targeting NAD+ pathway, cellular senescence, and anti-inflammation. Mushroom-based formulas (Reishi, Cordyceps, Turkey Tail) are the highest-growth subsegment.

### Key Ingredients & Standard Dosages

Ingredient	Dose	Specification	Key Benefit
Reishi Mushroom	500–2000mg	Polysaccharides ≥30%, dual extract	Immunomodulation (Th1/Th2 balance)
Beta-1,3/1,6-D-Glucan	100–500mg	≥75% purity	Macrophage & NK cell activation
Elderberry Extract	200–600mg	Anthocyanins ≥3%	Antiviral, cytokine modulation
Zinc Bisglycinate	10–25mg	Chelated for absorption	Immune cell development, antiviral
Vitamin D3 + K2	1000–5000 IU D3 + 45–180mcg K2	Cholecalciferol + MK-7	Innate immunity, bone, cardiovascular
NMN / NR	250–500mg	≥98% purity	NAD+ restoration, cellular energy
Quercetin	250–1000mg	≥95% from Sophora japonica	Anti-inflammatory, zinc ionophore
Astragalus Root	250–500mg	Polysaccharides ≥40%	Telomere protection, anti-aging immunity

■ Longevity positioning commands the highest price point in the immune category. NAD+ formulas (NMN/NR) retail at \$60–\$120+ per bottle in the US premium market. Combining immune + longevity positioning in one formula appeals to consumers 45+ who are the highest-value segment.

## ■ Sports Performance & Recovery

*Muscle · Endurance · Recovery · Joint Support*

### Market Overview

Sports nutrition is the largest supplement category globally at \$22B+. The premium growth segment is 'clean label' sports nutrition — whole food sources, no artificial colors/sweeteners, transparent dosing. Key trends: recovery-focused formulas (vs. pre-workout), adaptogens in sports stacks, and joint support formulas for aging active consumers.

### Key Ingredients & Standard Dosages

Ingredient	Dose	Specification	Key Benefit
HMB (β-Hydroxy β-Methylbutyrate)	1500–3000mg	Free acid form preferred	Anti-catabolic, lean mass preservation
PEA (Palmitoylethanolamide)	300–600mg	≥99% purity	Anti-inflammatory, joint pain modulation
Tart Cherry Extract	480–960mg	Anthocyanins ≥10%	DOMS reduction, antioxidant recovery
L-Glutamine	2000–10,000mg	Pharmaceutical grade	Gut integrity, glycogen replenishment
Creatine Monohydrate	3000–5000mg	≥99.9% Creapure® preferred	ATP resynthesis, strength, power
Electrolytes (Na/K/Mg)	Variable per formula	Chelated mineral forms	Hydration, nerve/muscle function
Collagen Peptides (Type II)	5000–10,000mg	MW optimized for joint uptake	Cartilage repair, joint mobility
Cordyceps CS-4	500–1000mg	Cordycepin ≥0.2%	VO2 max, ATP production, endurance

■ Recovery positioning is outgrowing pre-workout in the premium segment. Recovery formulas targeting delayed onset muscle soreness (DOMS) and joint health appeal to the 35–55 active adult segment who prioritize longevity over peak performance. HMB + PEA recovery stacks are particularly effective with documented anti-catabolic evidence.

## How to Use This Guide

### 1. Identify your primary category

Use the market size and growth data to validate your category selection. High CAGR categories offer faster brand building but more competition.

### 2. Build your ingredient stack

Start with 3–5 core clinically-backed ingredients at full clinical doses. Avoid underdosing for cost savings — it destroys credibility with informed consumers.

### 3. Choose your positioning tier

Entry, mid-range, premium, or super-premium? Your ingredient specification choices (e.g. 200:1 vs 10:1 Tongkat Ali) determine which tier you can credibly enter.

### 4. Check regulatory compliance

Use NuCoreBio's Market Compliance Checklist to verify your ingredient stack is permitted in your target market.

### 5. Submit your formula brief

Use NuCoreBio's Custom Formula Brief Template to formalize your requirements. Our R&D; team responds within 72 hours.

■ Ready to build your formula? • Download the Custom Formula Brief Template and fill in your concept • Request free samples of our standard formulas in your target category • Contact our R&D; team for a free 30-minute formulation consultation Email: [Mc5896538@outlook.com](mailto:Mc5896538@outlook.com) | WhatsApp: +86 15866920149 | [nucorebio.com](https://nucorebio.com)