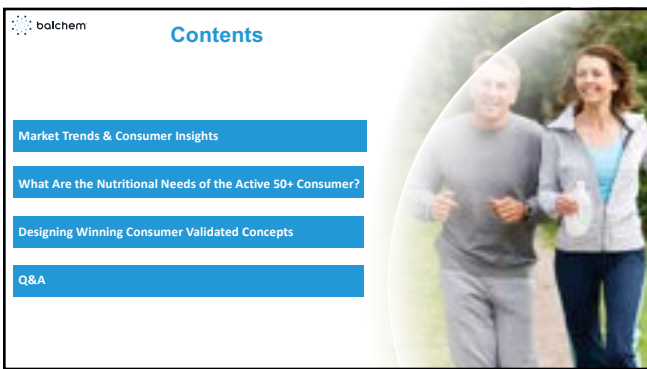


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3

The US Sports Nutrition Market Growth is Expected to Continue

Year	Value (\$B USD)
2019	\$16.8
2020	\$17.9
2021	\$19
2022	\$20.2

Key Growth Drivers

- Consumer activity and sports participation has increased substantially over the past 5 years
- Active consumers are looking for nutritional products to help enhance their performance
- The pandemic accelerated interest in getting healthy and staying fit and will continue to influence the category

balchem Sources: Innova Market Sizing, 2020. Excludes dietary supplements; Statista, 2021; Innova Sports Nutrition Category A&L, 2020

4

An Opportunity Exists to Target the Growing Consumer Base of Active Adults 50+

Consumers are living longer and staying active

1/4 of American consumers 55+ are health club/gym members, up 38% over 10 years

61% of boomers say they exercise or want to exercise more

Active adults 50+ have unique nutritional needs and often lack adequate dietary intake of key minerals and nutrients

balchem Source: IBISWorld, 2020

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The General Dietary Supplement Category Targets Specific Age Demographics

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While the Performance Market is "One Size Fits All"

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Performance Beverages Resonate with All Demographics

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Source: LightSpeed/Market 2020, Base: 1,231 internet users aged 18+ who have purchased any sports/performance/protein drinks or mix in the past six months

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Consumers are Looking to Health Benefit Platforms in Category Adjacencies to Influence the Future of Performance

Immune Health

US Zinc retail sales show massive consumer demand
+126.9% in \$ sales
+112% in physical volume

The global consumer seeks products with Immune Health benefits

67%

72%

Brain Health

24% CAGR 2016-2020

Rise in brain health claims in sports powders and RTD beverages

Need gap analysis shows opportunities for "helping to reduce stress and anxiety"

Longevity

Most Appealing Longevity Product Positioning:

- Mobility Support/Joint Health
- Bone Health
- Vitality/Energy Support

High Protein Content in dairy products with "healthy aging" claims

+86% vs 2017

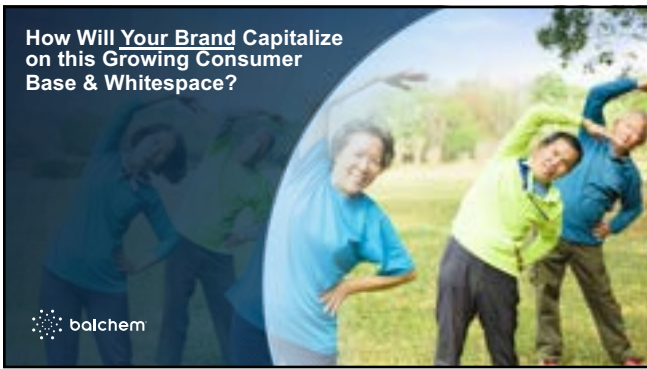
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Sources: Nielsen, Luttrell 52 weeks ending 10/6/21; Innova Product Database, 2022; PREGI Guru; What's Next for Immune Health, 2021; Innova Market Insights, 2021; "Supplements, Food & Beverage ABU, INC, 2020; "Take to the working needs of healthy aging consumer", AMMA, 2022

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12

Active Adults 50+ Need Key Nutrients to Support Their Health

Support for a healthy immune system
Key Nutrients: Zn, Fe

Nutritional support to grow & maintain muscle mass
Key Nutrient: Protein

Exercise recovery support
Key Nutrients: Protein

Support for healthy cognitive function
Key Nutrients: Choline, Fe

Help improve muscle strength with resistance training
Key Nutrient: Creatine

Support for regular muscle contraction and relaxation
Key Nutrients: Ca, Mg

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And Their Dietary Habits Sometimes Interfere With Their Nutritional Needs

Not consuming enough of key nutrients in their diets

Key nutrient needs may be higher than general recommendations

Poor absorption of key nutrients

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Are Consumers Getting Enough?

Nutrient gaps and nutritional needs

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Nutritional Gaps Are Prevalent Amongst 50+ Consumers, Especially Minerals

Consumers aged 50+ are not meeting their needs for key nutrients such as **Calcium, Magnesium, and Zinc** from food and beverages alone

Nutrient	Females (%)	Males (%)
Calcium	~75	~35
Magnesium	~50	~55
Zinc	~20	~20

Source: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3999300/pdf/ajph.aphsp.2011.03.5923.pdf>
Usual nutrient intake from food & beverages; n=197

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Magnesium Carries an FDA Qualified Health Claim

- "Inconsistent and inconclusive scientific evidence suggests that diets with adequate magnesium may reduce the risk of high blood pressure (hypertension), a condition associated with many factors."
- "Consuming diets with adequate magnesium may reduce the risk of high blood pressure (hypertension)."
 - FDA has concluded that the evidence is inconsistent and inconclusive.
- "Some scientific evidence suggests that diets with adequate magnesium may reduce the risk of high blood pressure (hypertension), a condition associated with many factors."
 - FDA has concluded that the scientific evidence supporting this claim is inconsistent and not conclusive.

<https://www.fda.gov/food/qualified-health-claims>

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Creatine Supplementation Supports Performance in Adults 50+

Study Goal
To compare creatine vs placebo during a resistance training program on measures of lean tissue mass and strength

Study Design
Meta-Analysis;

- Healthy adults (mean age >50y)
- N=20 Randomized controlled trials
- Long-term (≥ 5 weeks)

Conclusions
Creatine supplementation supports lean tissue mass and strength increases during resistance training among 50+ adults

Measure	Standard Mean Difference vs Placebo
lean Tissue Mass (kg)	~1.3
Chest Press Strength	~0.3
leg Press Strength (>5g/d creatine)	~0.3

Forbes et al., *Nutrients* 2021, 13(6): 2512. doi:10.3390/nu13062512

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Creatine Carries EFSA Claims on Performance

Creatine EFSA Claims: Performance

Daily creatine consumption can enhance the effect of resistance training on muscle strength in adults over the age of 55

Creatine increases physical performance in successive bursts of short-term, high intensity exercise



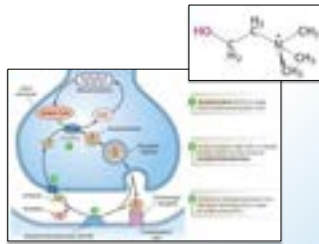
Source: *EFSA Journal* 2009; 7(9): 1236; *EFSA Journal* 2010; 8(12): 1807; *EFSA Journal* 2016; 14(7): 4400.

19

VitaCholine® Supports Brain & Muscle Function



- Choline is an essential nutrient that plays a critical role in both **brain and muscle function**
- Choline is a component of the neurotransmitter **Acetylcholine**, which is critical for the **communication between your brain and muscles**
- Choline supports **mood, memory, and attention** – key aspects of athletic performance



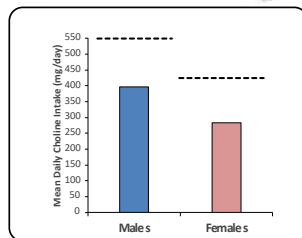
Food and Nutrition Board, Institute of Medicine, 1998; Office of Dietary Supplements, <http://ods.od.nih.gov/Articles/Choline-Health-Professionals/>

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Choline Consumption is Also Lacking



Just **~1 in 10** American adults aged **51+** are consuming enough Choline in their diets



Source: <http://www.ncbi.nlm.nih.gov/pubmed/20033007>; <http://www.ods.od.nih.gov/Articles/Choline-Health-Professionals/>
Usual nutrient intake from food & beverages, n=4,525; ----- = Adequate intake (AI) for age/gender group

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Athletes Have An Increased Need For Iron

Group	Female (mg/day)	Male (mg/day)
General Population	~1.4	~1.1
Athletes	~2.2	~1.7

> Athletes experience greater iron loss each day compared to the general population
 > The Institute of Medicine suggests that the requirement for iron is up to 70% greater for those who engage in regular exercise

balchem | **IRONCHEL**
Source: Weaver & Rajaram / Nutr 1992; 782-792; Food and Nutrition Board, Institute of Medicine, 2001, p352-353; Among males after puberty and menstruating females

22

Protein is an Important Part of the Diet with Higher Requirements for Seniors and Athletes

Group	Daily Protein Recommendation (g RDA / kg BW / day)
Insitu to of Medicine RDA	~0.8
Seniors*	~1.2
Athletes**	~1.8

Expert group recommendations for daily protein intake for seniors and athletes exceed the current RDA

balchem | **VitalBlend**
Sources: ESPEN Recommendation for Seniors: Datta NEP, et al., Clin Nutr 2014; 33(6): 929-936; **AND / ACSM / DC Position for Athletes: Thomas DT, et al., J Acad Nutr Diet 2016; 116(9): 501-528;

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Closing Nutritional Gaps Through Supplementation and Fortification is Like Filling Your Bathtub

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Nutrient Consumption is Important for the 50+ Athlete, but Nutrient Bioavailability is Most Crucial

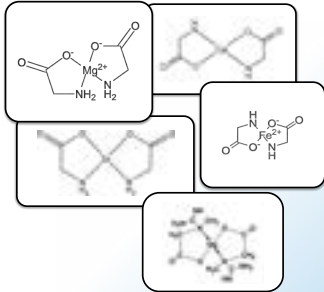


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Chelated Minerals Offer Significant Benefits

- Chelates are minerals bound to amino acids such as glycine
- Mineral chelates have been shown to reduce the binding of Anti-Nutrients (e.g., phytates) and are better absorbed than their non-chelated counterparts
- Mineral chelates have better solubility making them well suited for specific applications (e.g., beverages)



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Summary: Fueling Active 50+ Consumers

- The 50+ consumer needs proper nutrition to best support an active lifestyle, including getting adequate intakes of essential nutrients like **choline, minerals, and plant protein**
- Active adults age 50+ face several challenges in meeting these dietary needs:
 - Inadequate intakes of key nutrients (e.g., Choline, Calcium, Magnesium, Zinc)
 - Increased requirements (e.g., Iron, Protein)
 - Poor absorption (i.e., interference from Anti-Nutrients)
- Chelated minerals are excellent options for products targeted towards the active 50+ consumer
 - They provide essential nutrition to help close nutrient gaps
 - Are better absorbed compared to conventional mineral salts, especially in the presence of Anti-Nutrients
- Products targeted towards active 50+ consumers should provide key nutrients formulated to recognize their specific needs using forms that optimize nutrient absorption

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Designing Winning Consumer Validated Concepts

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Concepts shown are for demonstration purposes only. Ingredient users are solely responsible for ensuring the compliance of formulation and labeling (inclusive of claims) with applicable regulations.

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HEALTHSPAN PRO

Nutrient-enriched protein shake for active adults

Introducing NEW **Healthspan Pro**, a nutrient-rich performance shake designed for active adults just like you!

Each delicious serving of creamy milk chocolate shake includes **all the nutrition you need to power your performance**. With high-quality ingredients **clinically proven** to provide health benefits and deliver a more bioavailable dose through **mineral chelates** in every bottle. Excellent as a pre-workout snack or recovery drink!

- **Calcium** to help maintain strong bones and support a healthy circulatory system
- **Iron** to support healthy energy metabolism and help deliver oxygen to muscles
- **Magnesium** to help support normal muscle function and help support a normal heart rhythm
- **Zinc** to support protein and fat metabolism and support immune health
- **Choline**, essential for brain and nervous system function and helps support muscular control
- **Vitamin D** to help support bone health and help support immune health
- **Plant Protein** to help build, maintain and repair muscles

Healthspan Pro is the *great tasting and great for you* way to power your performance everyday.

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PLANT POWER

Delicious sports nutrition shake powered by the goodness of plants

Your workout is an important part of your day, setting you up for success, mentally and physically. The nutritional products you consume should complement your lifestyle, no matter what diet you follow. **NEW Plant Power** sports nutrition shake helps take the guesswork out of your routine, with important nutrients and 15g of plant-based protein packed in every serving!

Plant Power contains a hefty serving of protein from chickpea and medium chain triglycerides for clean fuel. We've added a unique, patented ingredient, **Creatine MagnaPower® (CMP)** to help deliver energy-producing ATP to muscle cells for increased anaerobic performance. CMP not only contains creatine but also magnesium, to help increase the bioavailability of creatine and your body's capacity to make ATP and improve carbohydrate digestion. Finally, the advanced mineral complex of nutrients like **chromium, boron, potassium and copper** round out this delicious shake!

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