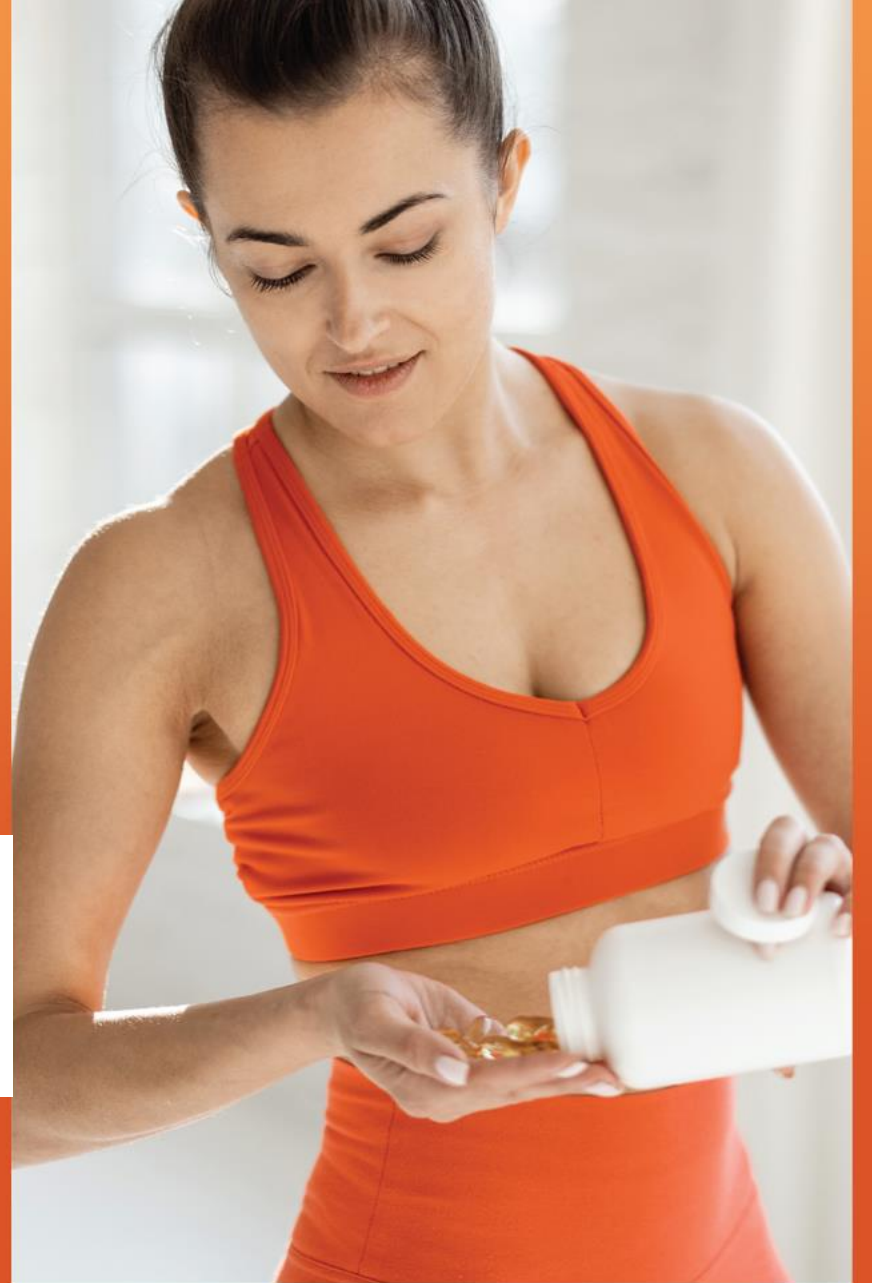


Setria®

Glutathione

**The Standout Antioxidant for
Women's Health**



COMPANY OVERVIEW

Date of Incorporation

February 23, 1907



Number of Group Companies

178



Number of Employees

30,000+

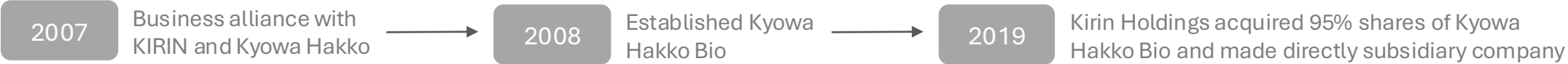
KIRIN HOLDINGS COMPANY, LTD.

Joy brings us together



Kyowa Hakko USA

COMPANY OVERVIEW



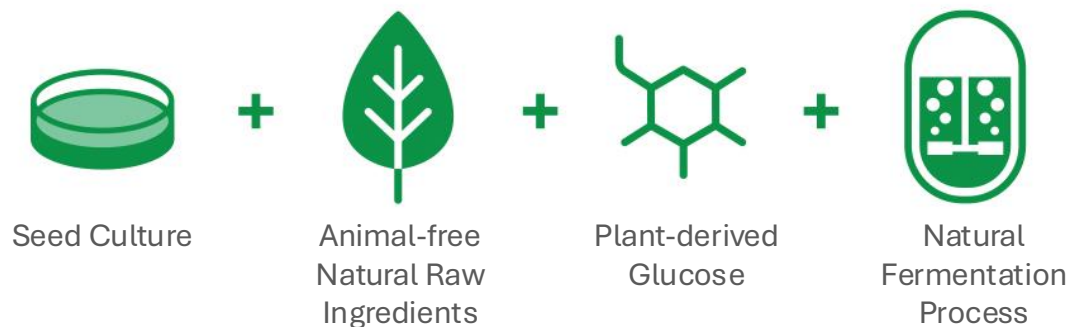
COMPANY OVERVIEW

Who We Are

Building on over 75 years of fermentation innovation and Kirin's 100+ year legacy of fermentation excellence, Kyowa delivers premium, science-backed branded ingredients to the nutraceutical, pharmaceutical, functional food, beverage, and wellness industries.

Our Fermentation Process

Backed by Kyowa's 75+ year legacy of biotech innovation and Kirin Holdings' century-long fermentation expertise.



Sales & Manufacturing Plants



Hofu Plant

Sales Offices

Head Office: Tokyo
Kyowa Hakko USA, Inc.
Kyowa Hakko Bio Italia S.R.L.

Manufacturing Plants

Kyowa Hakko Bio Co., LTD
(Hofu – Japan)

DIETARY SUPPLEMENT & NUTRITION PRODUCTS

Nucleic Acids

Citicoline (Cognizin®)

Postbiotics

Kirin Holdings Co. Ltd.,

Product Offerings:

Lactacisibacillus paracasei KW3110
(EYEMUSE™)

Peptides

L-Alanyl-L-Glutamine

L-Glutathione Reduced (Setria®)

Vitamins

Vitamin K₂

Vitamins B Derivatives

Kyowa Pharma Chemical Co.

Product Offerings:

Vitamin B₅ derivatives

Pantesin® LQ80

Pantesin® HF55

Vitamin B₆ derivatives

Pyridoxal-5'-phosphate

Cognizin®

BRAIN HEALTH



BENEFITS:

- ACCURACY
- FOCUS & ATTENTION
- PHOSPHOLIPID SUPPORT
- PRODUCTIVITY
- COGNITIVE HEALTH
- NEUROTRANSMITTER SUPPORT
- LONG-TERM BRAIN HEALTH
- MENTAL ENERGY
- PSYCHOMOTOR PERFORMANCE
- MEMORY
- OXIDATIVE STRESS SUPPORT

Setria®

CELLULAR HEALTH



BENEFITS:

- DETOXIFICATION
- RESPIRATORY HEALTH
- GUT HEALTH
- SETRIA FOR SPORT
- HEALTHY GLUTATHIONE LEVELS & ABSORPTION
- OXIDATIVE STRESS
- IMMUNE HEALTH
- SKIN HEALTH
- HEALTHY AGING

Pantesin®

HEART HEALTH



BENEFITS:

- CHOLESTEROL SUPPORT
- HEALTHY METABOLISM OF LIPIDS
- HEALTHY METABOLISM OF AMINO ACIDS
- HEALTHY METABOLISM OF CARBOHYDRATES

EYEMUSE®

EYE HEALTH



BENEFITS:

- SUPPORTS EYE HEALTH
- MAY HELP REDUCE DAILY EYE FATIGUE

CONTENTS

Women's Health Priorities

What is Setria®?

Oral Efficiency Science

Setria® for Immune Health

Setria® for Healthy Aging

Active Nutrition & Sports Performance


Setria®
Glutathione





NEED-STATES AND WOMEN'S HEALTH

KEY CONSUMER INSIGHTS

Women in the U.S. are increasingly vocal about what they need from the health and wellness industry.

83%

of women agree women's health needs require a different approach than men's

68%

of women say there aren't enough products on the market built around their needs

Source: Nextin Research, 2025

IMMUNE HEALTH

Work, family, and caregiving responsibilities rarely go on pause when life gets hard.

For those already juggling a busy schedule, even a minor illness can quickly feel like it carries high stakes.

35%

of U.S. women agree
“I cannot afford to get sick”

62%

of women interested in immune
health take supplements daily, 19%
higher than all female consumers

55%

of women interested in
immune health are trying to
include more antioxidants
in their diet

Source: Nextin Research, 2025

HEALTHY AGING

Women aren't waiting to feel the effects of aging to start acting on it.

Their interest in healthy aging starts earlier than their male counterparts.

74%

of U.S. women think “healthy aging” should be included under the umbrella of “women’s health”

41%

of women interested in healthy aging say clinical validation is an important attribute when shopping for supplements

Source: Nextin Research, 2025

SPORTS NUTRITION

Women are taking a larger interest in muscle mass and strength training, and that means more female-focused sports nutrition products.

10%

Female-targeted sports nutrition product launches grew 10% globally between 2020 and 2024

15%

of U.S. women identify muscle mass maintenance as a current personal health need



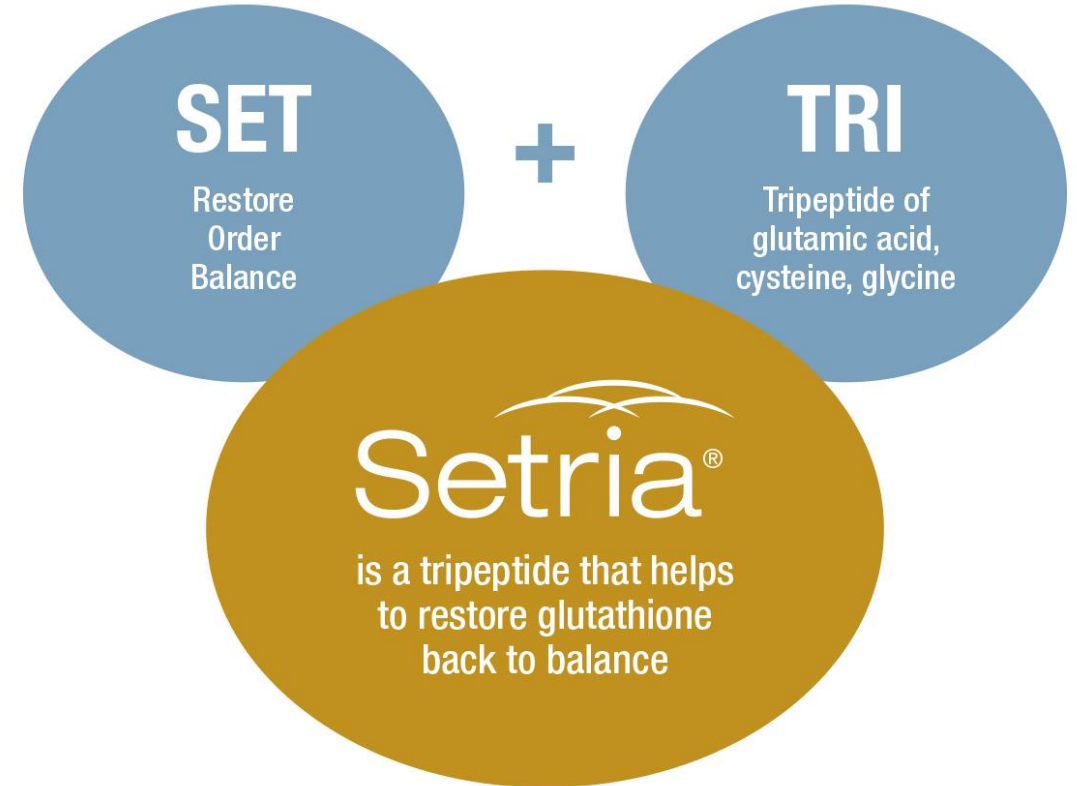
Source: Innova Markets; Nextin Research, 2025

A decorative orange swoosh graphic in the top-left corner of the slide.

WHAT IS SETRIA®?

WHAT IS SETRIA®?

- Kyowa's branded form of L-Glutathione
- A powerful tripeptide
- The most abundant antioxidant in our body
- Promotes **detoxification**
- Provides **antioxidant protection**
- Fortifies the **immune system**



SETRIA[®] FEATURES

Recommended Dosage

- Dietary Supplement: 250-500mg/day
(Max:1,000mg/day)

Use

- Capsule, tablet, or powder form

Taste

- Characteristic odor
- White crystalline powder
- Acidic taste

Stability

- Stable to temperature or humidity
- Unstable in water



PURE

Setria is a pure ingredient with an assay value of 98.0%–101.0%



ADDITIVE-FREE

Setria contains no additives, artificial flavors or preservatives



TSE/BSE RISK FREE



GRAS



GMP COMPLIANT

Setria is manufactured in compliance with GMP guidelines



VEGETARIAN

Setria contains no animal origin material



ALLERGEN-FREE

Considered allergen-free



KOSHER

Certified as Kosher ingredient



FERMENTATION

Produced by an innovative fermentation process



STABLE

Setria is stable to temperature and humidity

SETRIA®: A STRATEGIC ADVANTAGE



Proven Scientific Efficacy



Patented Innovation



Award-Winning Recognition



Consumer Demand for Glutathione is Growing



Unmatched Regulatory and Safety Credentials



Setria's Quality and Purity Set It Apart



Commitment to Continuous Innovation



Versatility Across Consumer Needs



Consumer Trust and Brand Recognition
Drive Sales



A Known Ingredient Can
Simplify Marketing



Differentiation Comes from Formulation,
Not Just Ingredients



Setria's Science-Backed Reputation
Elevates Your Brand



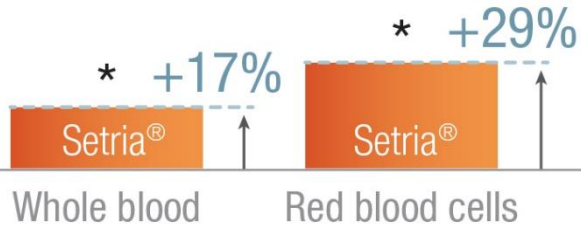
ORAL EFFICIENCY SCIENCE

SETRIA® ORAL EFFICIENCY STUDY

Setria® Glutathione supplementation effectively increases the body's stores of glutathione and supports the immune system

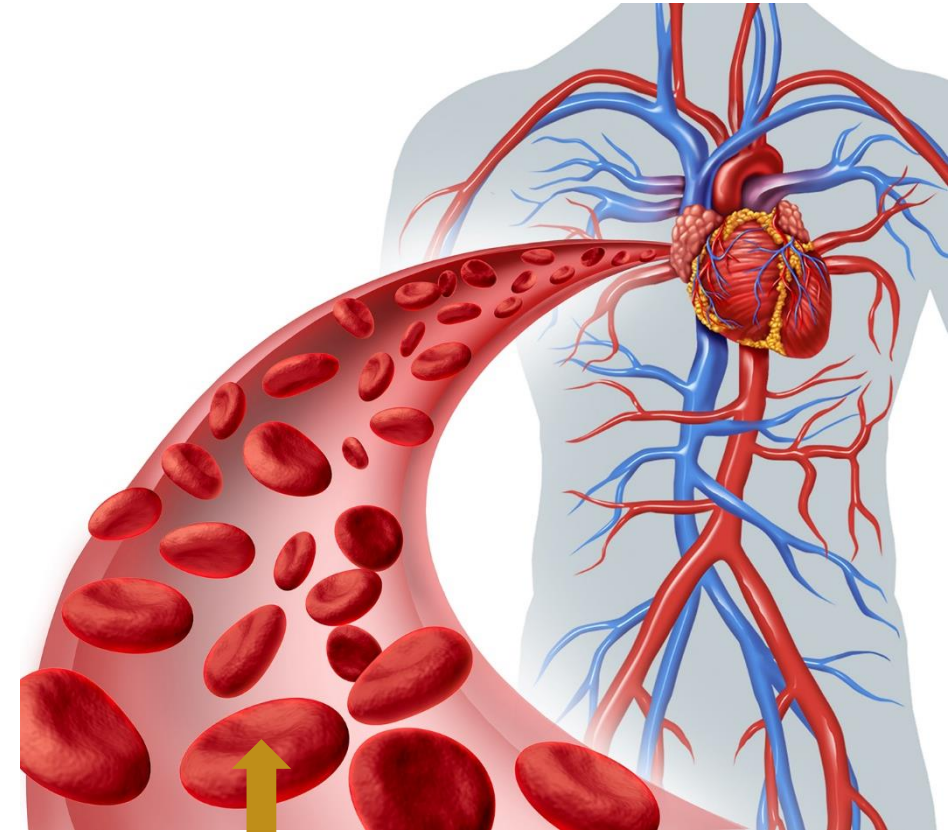
6 Months
Setria® 250mg/day

Baseline



Taking **250mg/day** of Setria® showed a 17% increase in whole blood and a 29% increase in red blood cells in glutathione levels from baseline.

*p<0.05 vs. baseline



Setria®

PROPRIETARY DATA

Richie JP Jr. *European Journal of Nutrition*. May 2014: 1436-6207.

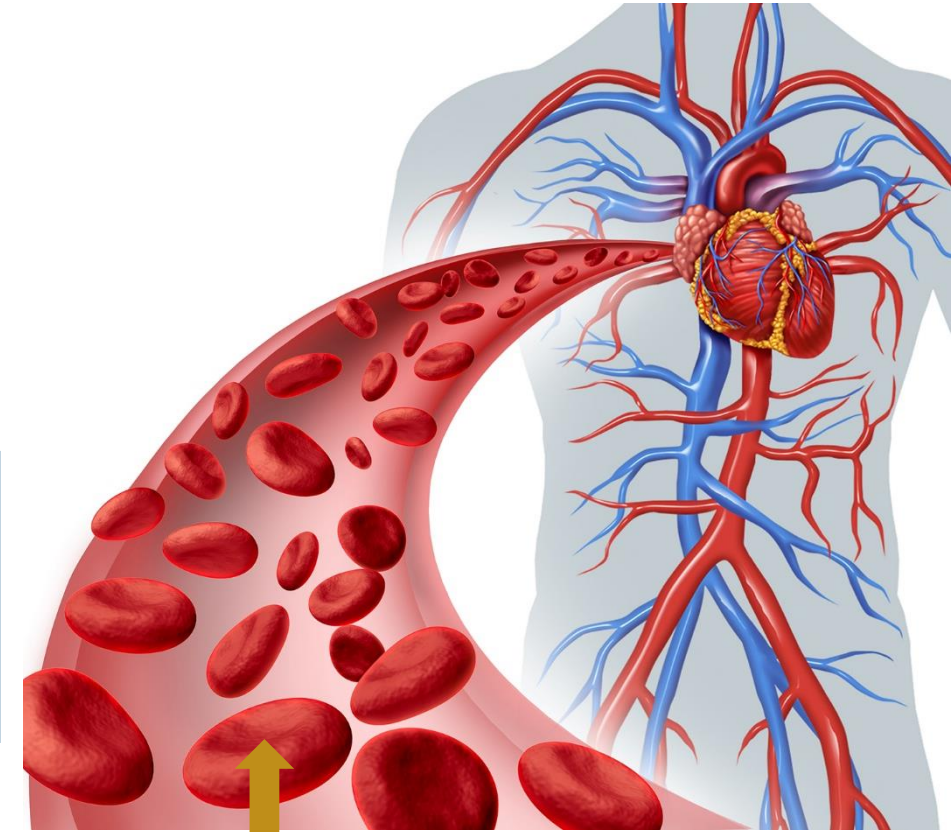
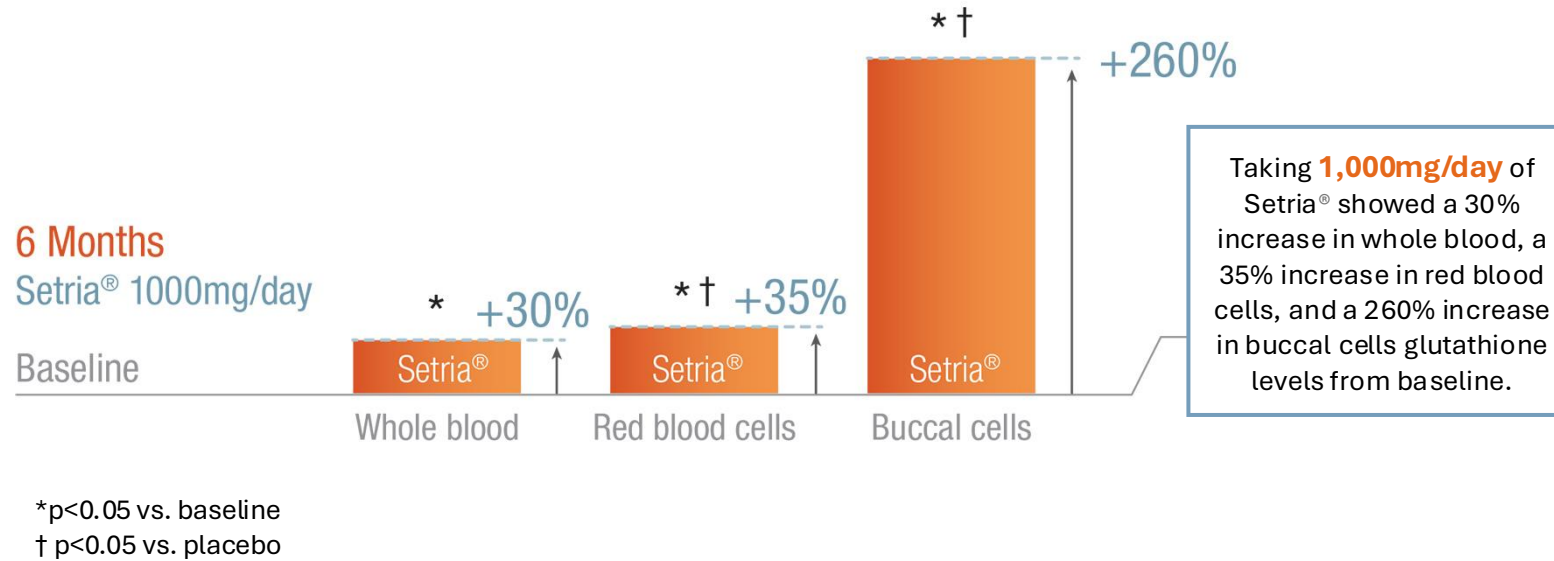
*These statements have not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure or prevent any disease.

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Setria®
Glutathione

SETRIA® ORAL EFFICIENCY STUDY

Setria® Glutathione supplementation effectively increases the body's stores of glutathione and supports the immune system



Setria®

PROPRIETARY DATA

Richie JP Jr. *European Journal of Nutrition*. May 2014: 1436-6207.

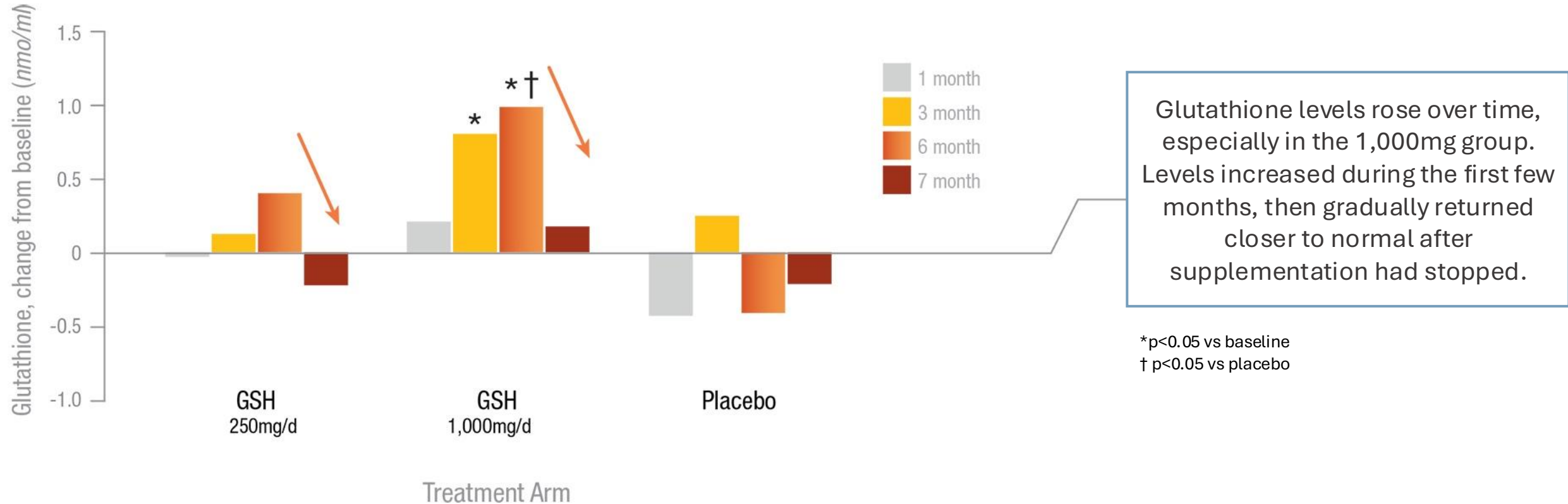
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Setria®
Glutathione

SETRIA® ORAL EFFICIENCY STUDY

Glutathione levels decline when supplementation stops



Richie JP Jr. *European Journal of Nutrition*. May 2014: 1436-6207.

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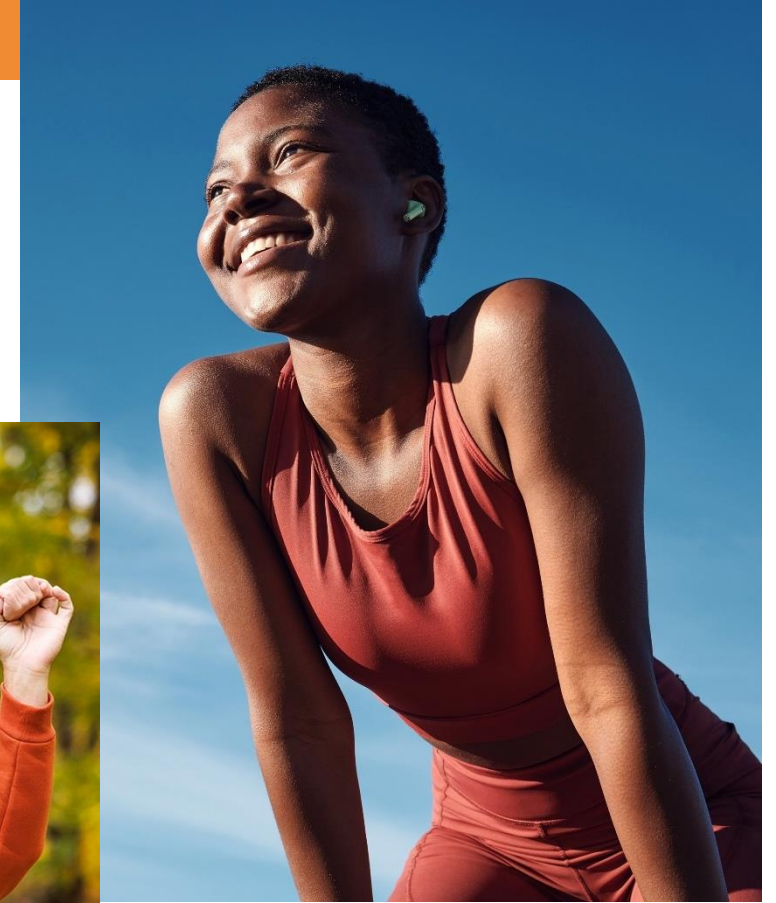
for **IMMUNE HEALTH**

SETRIA® FOR IMMUNE HEALTH

Setria® can be the first line of defense your immune system might need

A strong immune system is important because it protects the body, maintains balance, and supports long-term health.

Glutathione is found in high amounts inside immune cells. Because it is already there before germs enter the body, it helps immune cells respond quickly and effectively when a threat appears.

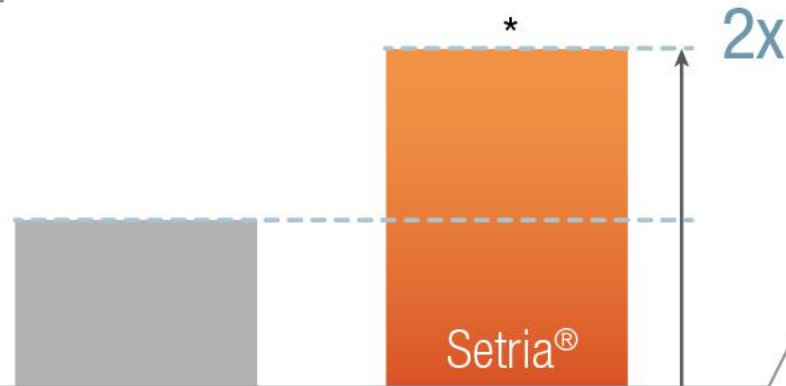


SETRIA® SUPPORTING SCIENCE

Setria® can increase NK cell activity two fold and support the immune system

3 Months

■ Baseline
■ Setria® 1000 mg/day



At three months the study revealed a two-fold increase in NK cell activity at 1,000mg of Setria® (natural killer cells support immune health).

*p<0.05 vs. baseline

Richie JP Jr. *European Journal of Nutrition*. May 2014: 1436-6207.

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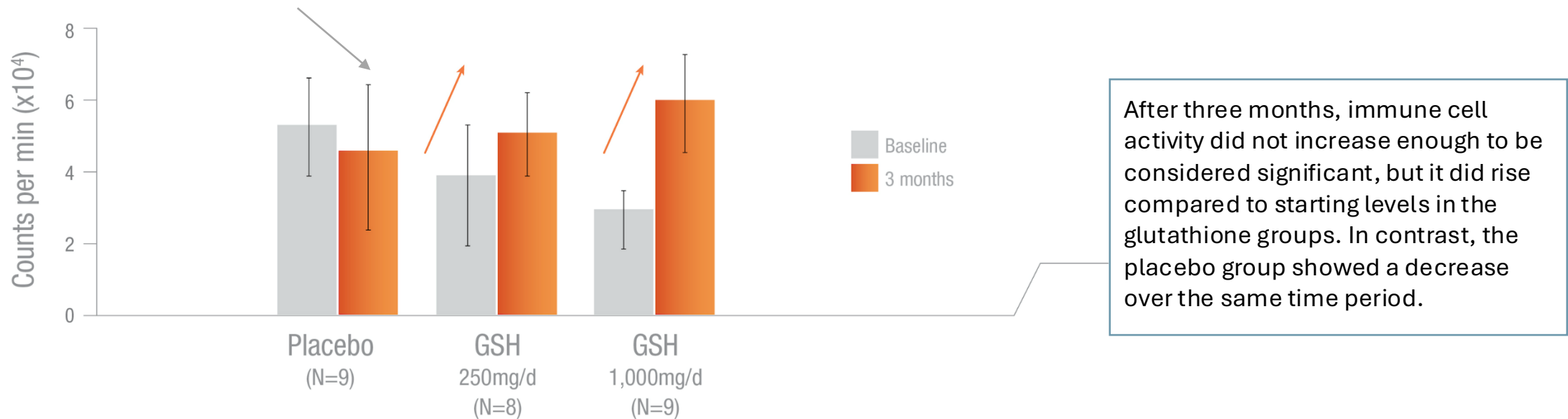
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Setria®
Glutathione

SETRIA[®] SUPPORTING SCIENCE

Glutathione is a critical intracellular antioxidant that supports immune function by maintaining cellular redox balance, protecting immune cells from oxidative stress, and enabling normal lymphocyte proliferation.

Therefore, adequate glutathione availability is essential for effective and adaptive immune responses.



Richie JP Jr. *European Journal of Nutrition*. May 2014: 1436-6207.

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Immune Health Claims (250mg/d)

- Setria® supports immune health
- Setria® helps to promote a healthy immune system
- Setria® supports your body's natural defense system
- Setria® supports immune health by replenishing your body's primary defense molecules
- Support your immune system by maintaining healthy levels of glutathione with the help of Setria®

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for **HEALTHY AGING**

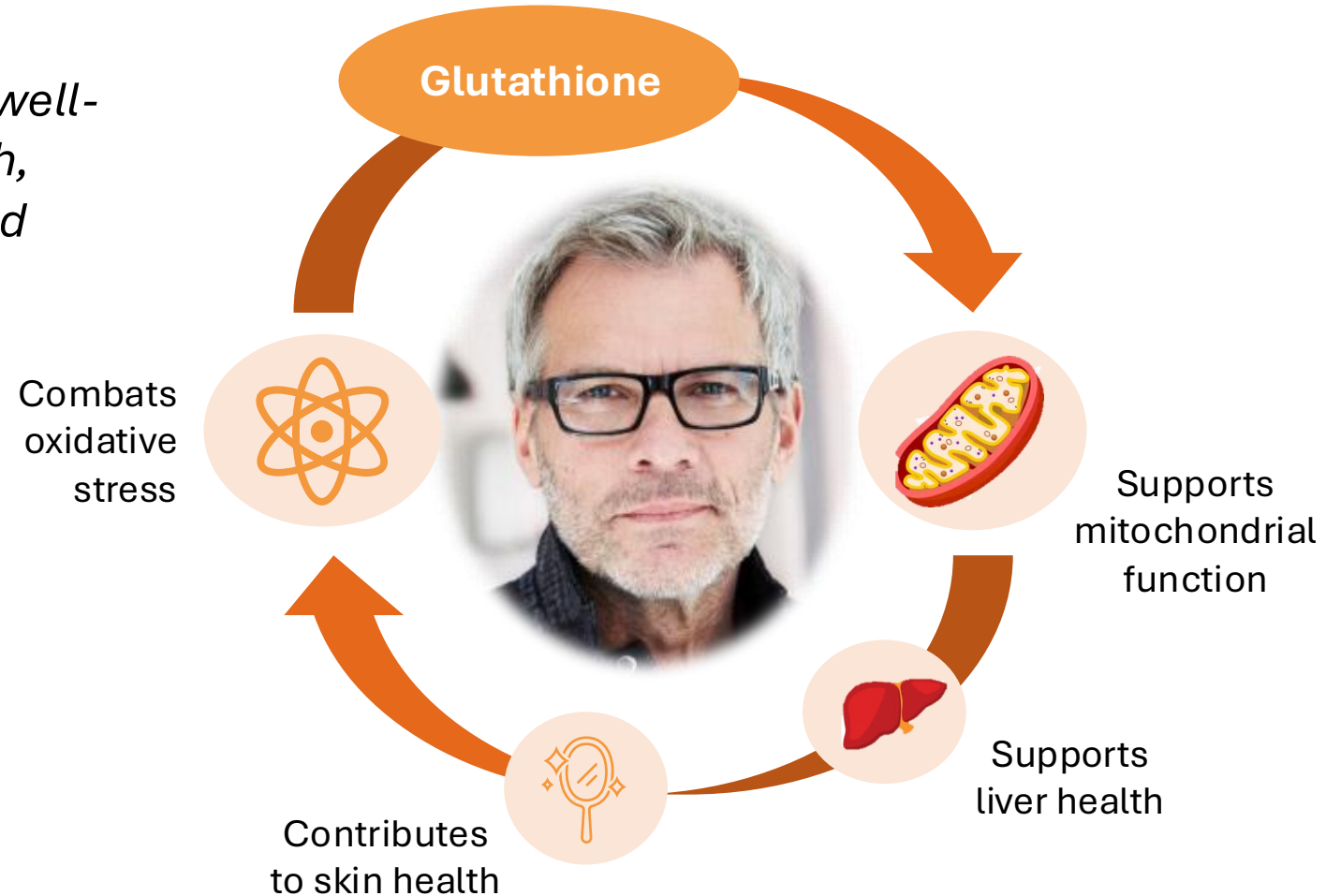
SETRIA® FOR HEALTHY AGING

According to the World Health Organization

“Healthy aging refers to the development and maintenance of functional ability that enables well-being in older age, supported by physical health, cognitive function, psychological resilience, and social engagement.”

As we age, our natural glutathione levels decline, which is closely linked to oxidative stress, immune health, and age-related diseases.

Supplementing with Setria® can help maintain stores of glutathione, lending to many benefits involved in healthy aging.



Glutathione Levels Decrease with Age

Supplementing with Setria® can help maintain stores of glutathione which can help combat oxidative stress.

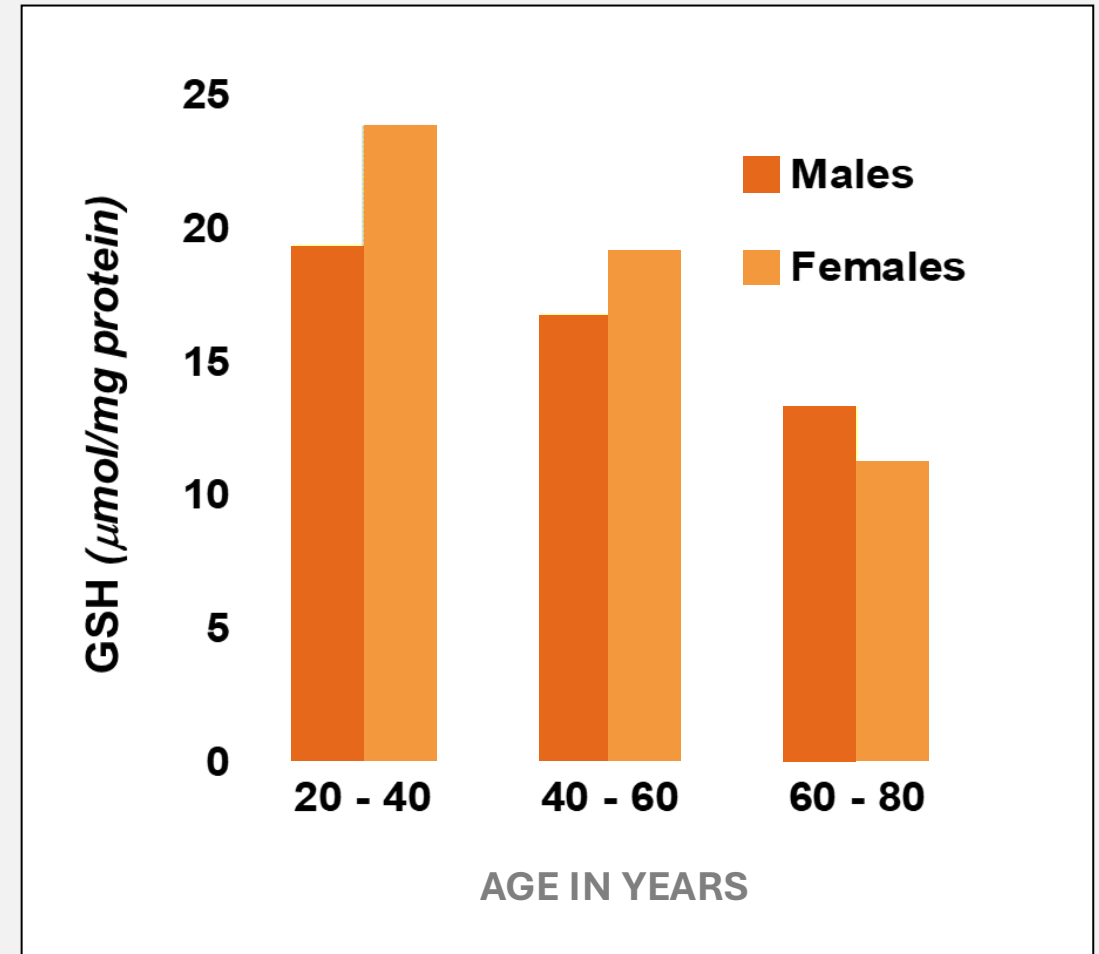
Glutathione Levels can *DECREASE* Due to:

- Age
- Stress
- Poor nutrition
- Poor gut health
- Chronic inflammation
- Cigarettes
- Alcohol
- UV radiation
- Drugs, chemicals
- Environmental toxins

Decreased Glutathione Levels are Associated with:

- Increased oxidative stress
- Reduced detoxification capacity
- Impairment of critical cellular functions
- Enhanced susceptibility to oxidative stress-related disease and disorder

Average Glutathione Levels by Age



Van Lieshout et al., Carcinogenesis.1998

Healthy Aging Claims (250mg/d)

- Setria® glutathione supports healthy aging and overall health
- Setria® glutathione supports mitochondrial health
- Setria® glutathione supports cellular health

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ACTIVE NUTRITION & SPORTS PERFORMANCE



SETRIA® FOR SPORT

The combination of Setria® glutathione (200mg) and L-citrulline (2g) has positive benefits in supporting vasodilation, blood flow, and nitric oxide production better than citrulline alone.

Setria® glutathione plays a key role in fighting oxidative stress that may be caused by intense exercise.

Glutathione also plays a fascinating role in regulating nitric oxide during exercise, adding another layer to its importance in performance and recovery.



SETRIA® SUPPORTING SCIENCE

Setria® combined with l-citrulline creates a complementary blend that supports healthy nitric oxide levels.

Nitric oxide helps blood vessels relax and open up. When vessels are more relaxed, blood flows more easily, delivering oxygen and nutrients where the body needs them.



Design

Double-blind randomized placebo controlled



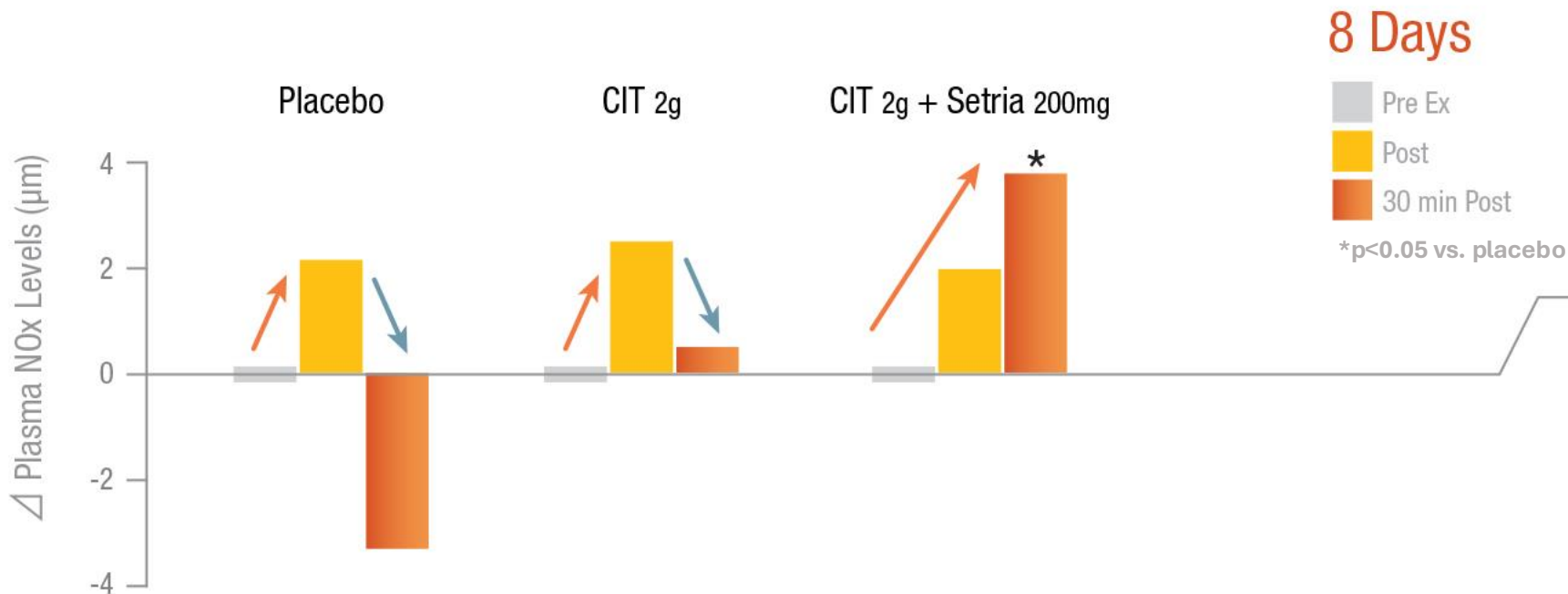
Subjects

n= 60 men (age 18-30 years)



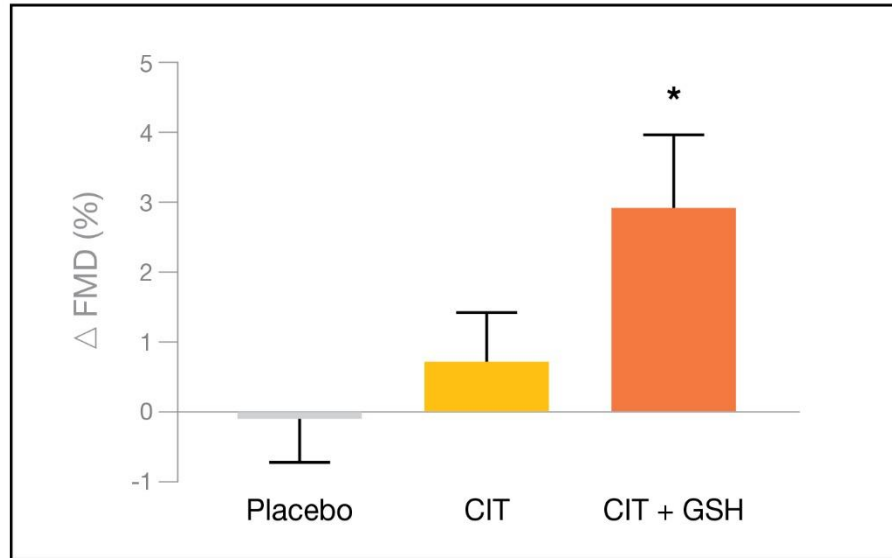
3 Groups

- Placebo
- Citrulline (2 grams)
- Combo (Cit 2 grams + 200 mg Setria)

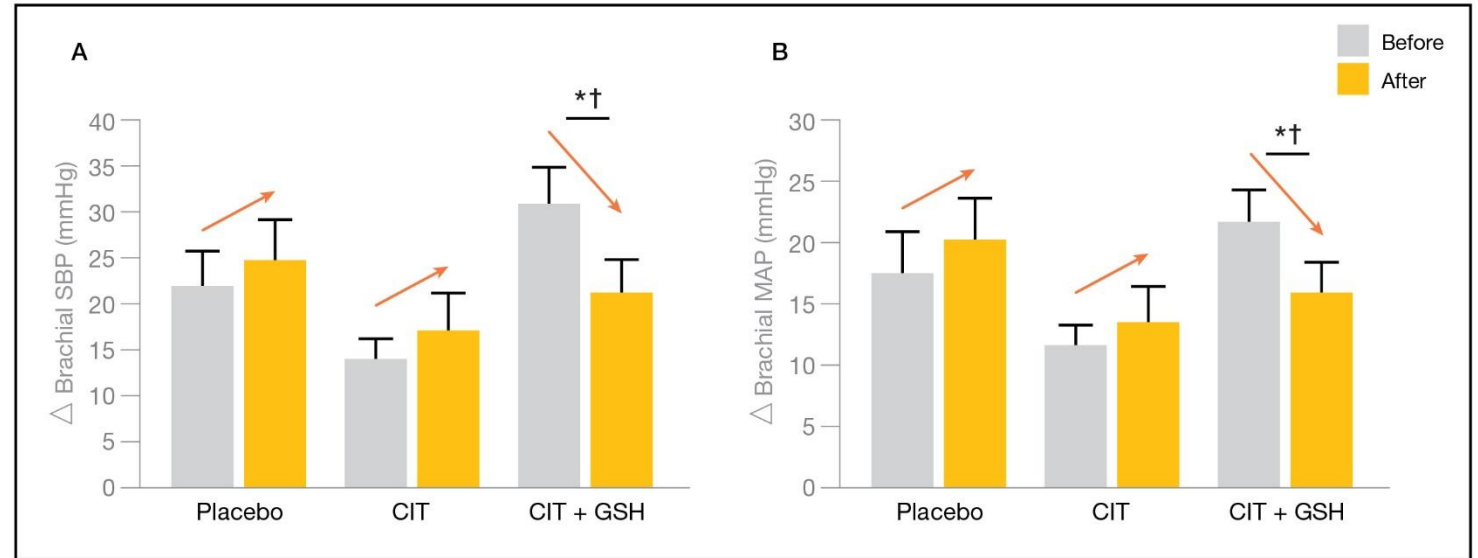


When glutathione is supplemented in combination with citrulline it significantly enhances nitric oxide production levels 30 minutes post-exercise when compared to placebo.

SETRIA® SUPPORTING SCIENCE



Figuroa A et al. *Nutrients* 2023, 15, 1557.



* ($p < 0.05$) Cit + GSH significantly reduced vs. baseline and ± vs. placebo

Results: CIT+GSH improved blood flow and attenuated systolic BP and mean arterial pressure reactivity in postmenopausal women.



Design

Double-blind randomized placebo controlled



Subjects

n= 39 post-menopausal women (age 51-74)



3 Groups

- Placebo
- Citrulline 6 grams
- Combo (Citrulline 2 gram & 200mg Setria)



Duration

4 Weeks



Endpoints

Flow-mediated dilation through brachial artery

Setria® for Sport Claims

(200mg Setria® + 2g citrulline)

- Setria® glutathione plays a role in supporting nitric oxide function
- Setria® in combination with citrulline helps sustain nitric oxide levels for a longer-lasting effect
- Setria® in combination with citrulline aids in vasodilation to fuel muscles
- Setria® in combination with citrulline supports nitric oxide levels 30-minutes post-exercise compared to citrulline alone
- Setria® in combination with citrulline supports lean body mass as part of resistance training
- Setria® in combination with citrulline supports cardiovascular health

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Healthy Glutathione Levels & Oral Efficiency Claims (250mg/d)

- Daily consumption of Setria® increases the body's glutathione levels
- Propriety research shows that the oral form of Setria® glutathione increases the body's glutathione levels
- Setria® is a safe and effective source of glutathione
- Daily consumption of Setria® can help to maintain optimal glutathione levels and overall good health
- Setria® can help maintain healthy glutathione levels

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What questions do you have about glutathione?



THANK YOU!

For more information, please contact us at:
info@kyowa-usa.com info@setriaglutathione.com

www.SetriaGlutathione.com