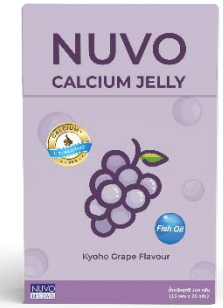
NUVO LIFE CARE

Your health, we care

ABOUT US



MY DEAR MOM

2020

We formed the company seeing the infertility problems nowadays.
Thus, together with infertility specialists, we developed the supplement,
"REPRO VITA-F. REPRO VITA-M, ASTA PRO"

2021

Seeing the difficulties of women in taking calcium during pregnancy, we utilized our best innovation and developed
"NUVO CALCIUM JELLY", a jelly that is suitable for everybody. Here, we also started the studies on hair and skin care product for pregnant women.

2022

We established MY DEAR MOM,
a brand created for pregnant women.
Our products are produced in an internationally accredited factory.
All products are certified by trustworthy organizations.

NUVO CALCIUM JELLY

Your new friend for better health!

NUVO CALCIUM JELLY

Portion of calcium needed per day for each age

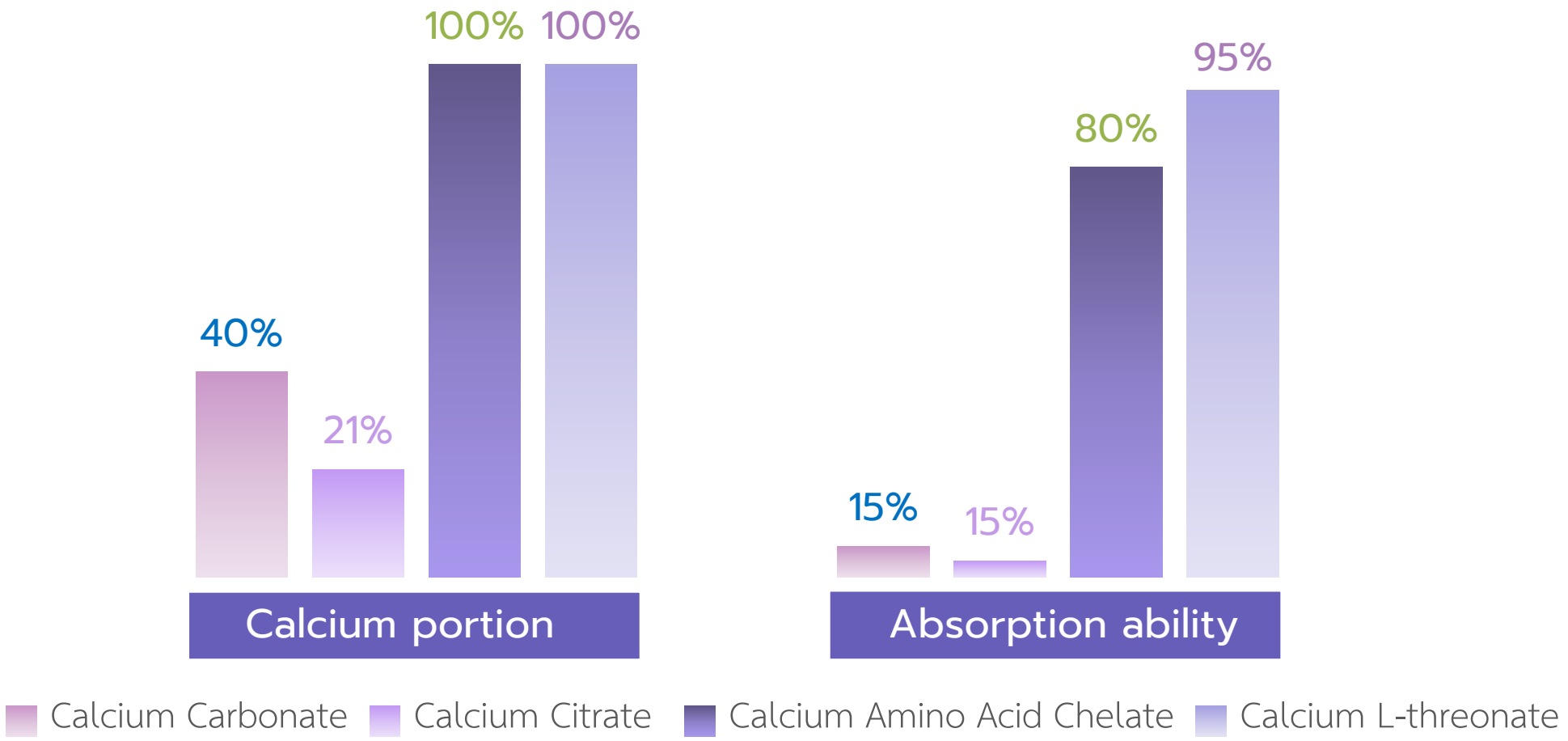
Table 1 - Optimal Calcium Requirements

Group	Optimal Daily Intake (in mg of calcium)
Infant	
Birth-6 months	400
6 months-1 year	600
Children	
1-5 years	800
6-10 years	800-1,200
Adolescents/Young Adults	
11-24 years	1,200-1,500
Men	
25-65 years	1,000
Over 65 years	1,500
Women	
25-50 years	1,000
Over 50 years (postmenopausal)	1,500
On estrogens	1,000
Not on estrogens	1,500
Over 65 years	1,500
Pregnant and nursing	1,200-1,500

Source: https://consensus.nih.gov/1994/1994optimalcalcium097html.htm

NUVO CALCIUM JELLY

Absorption ability of different types of calcium at 1000 mg



Benefits of NUVO CALCIUM JELLY

NUVO CALCIUM JELLY
A supplement for everybody. It boosts calcium, is easy to consume, delicious, and full of benefits!

✨ 20 beneficial nutrients! With Calcium L-threonate, which can absorb 6 times better, the body can make use of up to 95% of calcium. It does not accumulate in the body. Plus, it enhances bone and teeth health and treats osteoporosis.

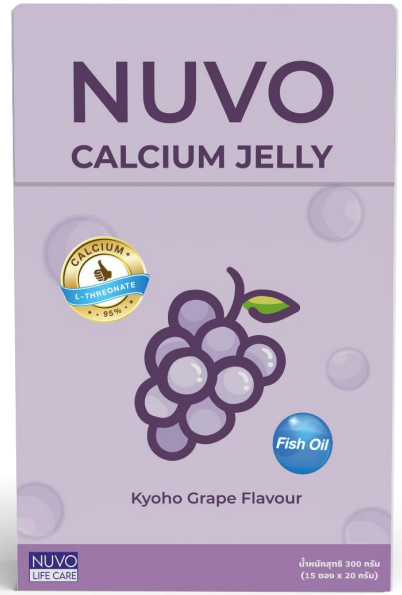
✨ EPA and DHA: reduce inflammation. Enhance cell functions and reduce the risk of heart and vascular disease

✨ Magnesium: helps regulate blood pressure and reduce the severe symptoms of migraine

✨ Ascorbic acid: antioxidant, prevents scurvy, and alleviates cold

✨ Vitamin B3: regulate cholesterol.

✨ Jelly form, easy to eat, tasty, no need to take with vitamin D



CALCIUM TABLETS VS NUVO CALCIUM JELLY

How to take

Hard to take. Feel like taking pills which some people or kids do not like

When to take

Fixed time to take, such as before – after meals, for the best results

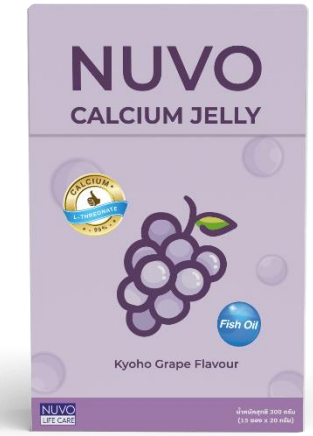
Side effect

Flatulence, indigestion, or gastrolith

Portability

Need to carry the whole bottle, pack, or use pill box

VS



How to take

Calcium in a form of jelly.
Easy to eat for kids

When to take

Any time

Side effect

No side effect. Jelly is easy to digest and does not accumulate

Portability

In a sachet form.
Easy to carry and eat

NUVO CALCIUM JELLY

Key ingredients

- With Calcium L-threonate, which can absorb 6 times better, the body can make use of up to 95%. It does not accumulate in the body. Plus, it enhances bone and teeth health and treats osteoporosis.
- EPA and DHA: reduce inflammation. Enhance cell functions and reduce the risk of heart and vascular disease
- Magnesium: helps regulate blood pressure and reduce the severe symptoms of migraine
- Ascorbic acid: antioxidant, prevents scurvy, and alleviates cold
- Jelly form, easy to eat, tasty, no need to take with vitamin D

NUVO CALCIUM JELLY

HACCP CERTIFIED

ISO 9001 CERTIFIED

GOOD MANUFACTURING PRACTICE GMP

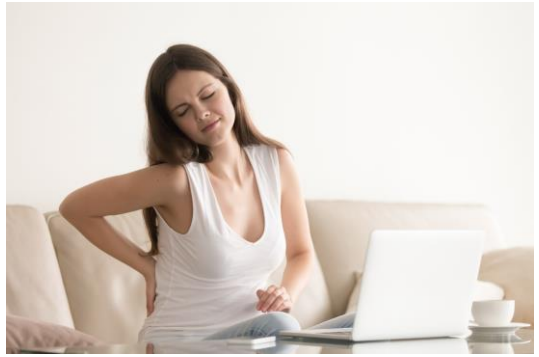
THAILAND TRUSTED QUALITY

Who is Suitable for NUVO CALCIUM JELLY?

Kids who need calcium for growth

Pregnant women who need calcium

Elderly who want to prevent cancellous bone



Working adults who want to take care of bone health

Those who want to boost Calcium and body immune

Reviews of NUVO CALCIUM JELLY

NUVO LIFE CARE

Academic information on the ingredients of Nuvo Calcium Jelly

Calcium L-threonate

Acta Pharmacologica Sinica (2011) 32: 1555–1560

www.nature.com/aps

Original Article

Pharmacokinetics and safety of calcium *L*-threonate in healthy volunteers after single and multiple oral administrations

Hong-yun WANG, Pei HU, Ji JIANG*

Clinical Pharmacology Research Center, Peking Union Medical College Hospital, Chinese Academy of Medical Science and Peking Union Medical College, Beijing 100730, China

Aim: To evaluate the pharmacokinetics of *L*-threonate after single or multiple oral administrations and its safety profile in healthy Chinese volunteers.
Methods: This was an open-label, single- and multiple-dose study. The subjects were assigned to receive a single dose, 675, 2025, or 4050 mg, of calcium *L*-threonate (n=12) or repeated doses of 2025 mg twice daily for 4 d (n=12). Serial plasma and urine samples were analyzed with HPLC-MS/MS. Pharmacokinetic parameters of *L*-threonate were calculated using non-compartmental analysis with WinNonlin software.
Results: In the single dose group, C_{max} reached at 2.0 h and the mean $t_{1/2}$ was approximately 2.5 h. Area under curve (AUC) and C_{max} increased with dose escalation, but dose proportionality was not observed over the range of 675 to 4050 mg. AUC and C_{max} in the fasted subjects were lower compared with those in the non-fasted subjects. Cumulative urinary excretion of *L*-threonate over 24 h represented 5.9% of the administered dose with a mean Cl/r of 0.8 L/h. In the multiple-dose study, no accumulation appeared upon repeated doses of 2025 mg twice daily for 4 d. There were no serious adverse events that occurred during this study.
Conclusion: Calcium *L*-threonate was well tolerated in healthy Chinese subjects, with no pattern of dose-related adverse events. Plasma exposure increased with dose escalation, but linear pharmacokinetics were not observed over the studied doses. *L*-threonate was absorbed rapidly, and its absorption was enhanced by food intake. No systemic accumulation appeared after repeated administrations.

Keywords: osteoporosis; calcium *L*-threonate; *L*-threonic acid; pharmacokinetics; safety; Chinese; open-label, single dose; multiple dose

Acta Pharmacologica Sinica (2011) 32: 1555–1560; doi: 10.1038/aps.2011.138; published online 10 Oct 2011

Introduction

Osteoporosis is a bone disease that leads to an increased risk of fracture. Due to its significant prevalence worldwide, osteoporosis is now considered a serious public health concern. In 1992, there were 1.6 million people worldwide suffering from this disease[1], and this number is estimated to reach 6 million by 2050[2]. Aging of populations worldwide is responsible for the major increase in the incidence of osteoporosis[3]. Osteoporosis can be treated with lifestyle changes and medications. Typical medications include bisphosphonates, estrogen analogs, raloxifene, calcium salts and sodium fluoride. These medications are classified as antiresorptive or bone anabolic agents. Antiresorptive agents reduce bone resorption, whereas bone anabolic agents build bone, rather than inhibit resorption[4].

L-Threonic acid is an active metabolite of vitamin C[5–8]. It has been reported that *L*-threonic acid exhibits significant stimulatory action on vitamin C uptake and prolongs the retention of vitamin C in human T-lymphoma cells[9, 10]. It is also well known that vitamin C is a marker for osteoblast formation and has been shown to stimulate procollagen and enhance collagen synthesis[11–14]. Therefore, *L*-threonic acid may play a role in the mineralization process through its positive action on vitamin C. This hypothesis was confirmed in 1999 by Rowe DJ[15]. It was reported that *in vitro* treatment with ascorbate-containing vitamin C metabolites enhanced the formation of the mineralized nodules and collagenous proteins and that *L*-threonate was one of the metabolites that was found to influence the mineralization process[15]. Recently, a preclinical study was performed to investigate the effect of *L*-threonate on bone resorption of rabbit osteoclasts[16]. This study contained a total of six culture groups, including one control group and

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https://pubmed.ncbi.nlm.nih.gov/21986570/

PubChem

COMPOUND SUMMARY

Calcium L-Threonate

PubChem CID	13388558
Structure	 2D 3D Find Similar Structures
Molecular Formula	$C_8H_{14}CaO_{10}$
Synonyms	Calcium L-Threonate 70753-61-6 L-Threonic acid calcium salt Calcium (2R,3S)-2,3,4-trihydroxybutanoate Calcium threonate More...
Molecular Weight	310.27
Parent Compound	CID 5460407 (L-threonic acid)
Component Compounds	CID 5460341 (Calcium) CID 5460407 (L-threonic acid)
Dates	Modify 2022-02-12 Create 2007-02-08

Calcium threonate is a calcium salt of threnoic acid and a novel drug developed for the treatment of osteoporosis and as a calcium supplement. It is found in dietary supplements as a source of L-threonate used in the treatment of calcium deficiency and prevention of osteoporosis. The most common form is calcium L-threonate, or (2R,3S)-2,3,4-trihydroxy butyric acid calcium. L-threonate is an active metabolite of vitamin C that mediates a stimulatory action on vitamin C uptake. Therapeutic efficacy of calcium threonate in reducing was studied and investigated due to the hypothesis that it may play a role in the mineralization process through its positive action on vitamin C.

DrugBank

https://pubchem.ncbi.nlm.nih.gov/compound/Calcium-L-Threonate#section=Patents

efsa European Food Safety Authority

The EFSA Journal (2008) 866, 1-20

Opinion on Calcium L-threonate for use as a source of calcium in food supplements[1]

Scientific Panel on Food Additives and Nutrient Sources added to food (ANS)

(Question number EFSA Q-2005-158)

Adopted by written procedure on 24 October 2008

This opinion replaces the earlier version published on 24 November 2008.[2]

Panel Members

F. Aguilar, U.R. Charrondiere, B. Dusemund, P. Galtier, J. Gilbert, D.M. Gott, S. Grilli, R. Guertler, G.E.N. Kass, J. Koenig, C. Lambré, J-C. Larsen, J-C. Leblanc, A. Mortensen, D. Parent-Massin, I. Pratt, I. Rietjens, I. Stankovic, P. Tobback, T. Verguieva, R. Woutersen.

Summary

Following a request from the Commission, the Scientific Panel on Food Additives and Nutrient Sources added to Food (ANS) has been asked to give advice on the safety and bioavailability of the substance calcium L-threonate, when used as a source of calcium in food supplements.

The present opinion deals only with the safety and bioavailability of a particular source of calcium, calcium L-threonate, to be used as a nutritional substance in food supplements. The safety of calcium itself, in terms of the amounts that may be consumed, is outside the remit of this Panel.

Human and animal studies indicate that calcium from calcium L-threonate is absorbed. In animal studies, the bioavailability of calcium from this source was comparable to or higher than from other sources of calcium.

Threonate is a normal constituent of the body, typically arising from the catabolism of ascorbic acid.

Calcium L-threonate has low oral acute toxicity, with no adverse effects observed at doses as high as 40 g/kg bw in mice or 32 g/kg bw in rats.

[1] For citation purposes: Scientific Opinion of the Panel on Food Additives and Nutrient Sources added to food (ANS) on a request from the Commission on calcium L-threonate as a source for calcium added for nutritional purposes in food supplements. *The EFSA Journal* (2008) 866, 1-20
[2] Editorial changes only: page 3 (table of content) and page 8 – 3.3.2 was updated to 3.1.2, page 4 Terms of Reference – the year of the regulation was changed from 202 to 2002. The changes do not affect the overall conclusion of the opinion. To avoid confusion, the original version has been removed from the website.

https://efsa.onlinelibrary.wiley.com/doi/epdf/10.2903/j.efsa.2008.866

Fish Oil & Magnesium

Menu

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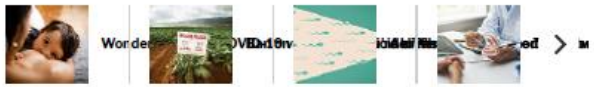

HEART HEALTH

Omega-3 fatty acids and the heart: New evidence, more questions

: www.health.harvard.edu/blog/omega-3-fatty-acids-and-the-heart-new-evidence-more-questions-202103242213

REVIEW

Omega-3 Fatty Acids EPA and DHA: Health Benefits Throughout Life[1,2]

Danielle Swanson,[3] Robert Block,[4] and Shaker A. Mousa[3,5]*
[3]The Pharmaceutical Research Institute, Albany College of Pharmacy and Health Sciences, Rensselaer, NY; [4]Department of Community and Preventive Medicine, and Division of Cardiology, Department of Medicine, University of Rochester School of Medicine and Dentistry, Rochester, NY; [5]College of Medicine, King Saud University, Riyadh, Saudi Arabia

ABSTRACT

Omega-3 [(n-3)] fatty acids have been linked to healthy aging throughout life. Recently, fish-derived omega-3 fatty acids EPA and DHA have been associated with fetal development, cardiovascular function, and Alzheimer's disease. However, because our bodies do not efficiently produce some omega-3 fatty acids from marine sources, it is necessary to obtain adequate amounts through fish and fish-oil products. Studies have shown that EPA and DHA are important for proper fetal development, including neuronal, retinal, and immune function. EPA and DHA may affect many aspects of cardiovascular function including inflammation, peripheral artery disease, major coronary events, and anticoagulation. EPA and DHA have been linked to promising results in prevention, weight management, and cognitive function in those with very mild Alzheimer's disease. *Adv. Nutr. 3: 1–7, 2012.*

Introduction

Omega-3 [(n-3)] long-chain PUFA, including EPA and DHA, are dietary fats with an array of health benefits (1). They are incorporated in many parts of the body including cell membranes (2) and play a role in antiinflammatory processes and in the viscosity of cell membranes (3,4). EPA and DHA are essential for proper fetal development and healthy aging (5). DHA is a key component of all cell membranes and is found in abundance in the brain and retina (6). EPA and DHA are also the precursors of several metabolites that are potent lipid mediators, considered by many investigators to be beneficial in the prevention or treatment of several diseases (7).

It can be challenging to get the appropriate intake of EPA and DHA through diet alone, even though EPA and DHA are produced by water plants such as algae and are prevalent in marine animals. A shorter chain omega-3 fatty acid, α-linolenic acid (ALA),[6] is a prominent component of our diet as it is found in many land plants that are commonly eaten, but it does not provide the health benefits seen with EPA and DHA. Although it is possible for the body to convert ALA to EPA and DHA by enlongase and desaturase enzymes, research suggests that only a small amount can be synthesized in the body from this process (8). For example, 1 study suggested that only ~2 to 10% of ALA is converted to EPA or DHA (9), and other studies found even less: Goyens et al. (10) found an ALA conversion of ~7% for EPA, but only 0.013% for DHA; Hussein et al. (11) found an ALA conversion of only 0.3% for EPA and <0.01% for DHA.

The current American diet has changed over time to be high in SFA and low in omega-3 fatty acids (12). This change in eating habits is centered on fast food containing high amounts of saturated fat, which has small amounts of essential omega-3 PUFA compared with food prepared in the home (13). Seafood sources such as fish and fish-oil supplements are the primary contributors of the 2 biologically important dietary omega-3 fatty acids, EPA and DHA (14–16). This low intake of dietary EPA and DHA is thought to be associated with increased inflammatory processes as well as poor fetal development, general cardiovascular health, and risk of the development of Alzheimer's disease (AD).

This review focuses on the many benefits of EPA and DHA supplementation throughout life, including use during pregnancy for proper fetal development and full-term gestation, to reduce many cardiovascular issues, and potential uses in AD.

[1] Supported by the Pharmaceutical Research Institute and in part by grant 10-NAN1034-02 from the Long-Term Comprehensive National Plan for Science, Technology and Innovation, King Saud University, Kingdom of Saudi Arabia.
[2] Author disclosures: D. Swanson, R. Block, and S.A. Mousa, no conflicts of interest.
[6] Abbreviations used: AD, Alzheimer's disease; ALA, α-linolenic acid; CRP, C-reactive protein; MMSE, Mini-Mental State Examination; PAD, peripheral arterial disease.
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Review

Magnesium in Prevention and Therapy

Uwe Gröber [1,*], Joachim Schmidt [1] and Klaus Kisters [1,2]

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Abstract: Magnesium is the fourth most abundant mineral in the body. It has been recognized as a cofactor for more than 300 enzymatic reactions, where it is crucial for adenosine triphosphate (ATP) metabolism. Magnesium is required for DNA and RNA synthesis, reproduction, and protein synthesis. Moreover, magnesium is essential for the regulation of muscular contraction, blood pressure, insulin metabolism, cardiac excitability, vasomotor tone, nerve transmission and neuromuscular conduction. Imbalances in magnesium status—primarily hypomagnesemia as it is seen more common than hypermagnesemia—might result in unwanted neuromuscular, cardiac or nervous disorders. Based on magnesium's many functions within the human body, it plays an important role in prevention and treatment of many diseases. Low levels of magnesium have been associated with a number of chronic diseases, such as Alzheimer's disease, insulin resistance and type-2 diabetes mellitus, hypertension, cardiovascular disease (e.g., stroke), migraine headaches, and attention deficit hyperactivity disorder (ADHD).

Keywords: magnesium; hypomagnesemia; cardiovascular disease; diabetes mellitus; asthma; ADHD; Alzheimer's disease

1. Introduction

Magnesium is the eight most common element in the crust of the Earth and is mainly tied up within mineral deposits, for example as magnesite (magnesium carbonate) and dolomite. Dolomite $CaMg(SO_3)_2$ is as the name suggests abundant in the Dolomite mountain range of the Alps [1–3]. The most plentiful source of biologically available magnesium, however, is the hydrosphere (*i.e.*, oceans

www.ncbi.nlm.nih.gov/pmc/articles/PMC4586582/pdf/nutrients-07-05388.pdf

Zinc & Vitamin C

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Review

Zinc as a Gatekeeper of Immune Function

Inga Wessels, Martina Maywald and Lothar Rink *

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Abstract: After the discovery of zinc deficiency in the 1960s, it soon became clear that zinc is essential for the function of the immune system. Zinc ions are involved in regulating intracellular signaling pathways in innate and adaptive immune cells. Zinc homeostasis is largely controlled via the expression and action of zinc "importers" (ZIP 1–14), zinc "exporters" (ZnT 1–10), and zinc-binding proteins. Anti-inflammatory and anti-oxidant properties of zinc have long been documented, however, underlying mechanisms are still not entirely clear. Here, we report molecular mechanisms underlying the development of a pro-inflammatory phenotype during zinc deficiency. Furthermore, we describe links between altered zinc homeostasis and disease development. Consequently, the benefits of zinc supplementation for a malfunctioning immune system become clear. This article will focus on underlying mechanisms responsible for the regulation of cellular signaling by alterations in zinc homeostasis. Effects of fast zinc flux, intermediate "zinc waves", and late homeostatic zinc signals will be discriminated. Description of zinc homeostasis-related effects on the activation of key signaling molecules, as well as on epigenetic modifications, are included to emphasize the role of zinc as a gatekeeper of immune function.

Keywords: zinc flux; zinc wave; homeostatic zinc signal; immune function; zinc deficiency; signaling pathways

www.ncbi.nlm.nih.gov/pmc/articles/PMC5748737/pdf/nutrients-09-01286.pdf

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By Mayo Clinic Staff

Overview

Vitamin C (ascorbic acid) is a nutrient your body needs to form blood vessels, cartilage, muscle and collagen in bones. Vitamin C is also vital to your body's healing process.

Vitamin C is an antioxidant that helps protect your cells against the effects of free radicals — molecules produced when your body breaks down food or is exposed to tobacco smoke and radiation from the sun, X-rays or other sources. Free radicals might play a role in heart disease, cancer and other diseases. Vitamin C also helps your body absorb and store iron.

Because your body doesn't produce vitamin C, you need to get it from your diet. Vitamin C is found in citrus fruits, berries, potatoes, tomatoes, peppers, cabbage, Brussels sprouts, broccoli and spinach. Vitamin C is also available as an oral supplement, typically in the form of capsules and chewable tablets.

Most people get enough vitamin C from a healthy diet. Vitamin C deficiency is more likely in people who:

- Smoke or are exposed to secondhand smoking
- Have certain gastrointestinal conditions or certain types of cancer
- Have a limited diet that doesn't regularly include fruits and vegetables

Severe vitamin C deficiency can lead to a disease called scurvy, which causes anemia, bleeding gums, bruising and poor wound healing.

If you take vitamin C for its antioxidant properties, keep in mind that the supplement might not offer the same benefits as naturally occurring antioxidants in food.

The recommended daily amount of vitamin C is 90 milligrams for adult men and 75 milligrams for adult women.

Evidence

Research on the use of vitamin C for specific conditions shows:

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Review

Old Things New View: Ascorbic Acid Protects the Brain in Neurodegenerative Disorders

Adriana Covarrubias-Pinto [1,2], Aníbal Ignacio Acuña [1,2], Felipe Andrés Beltrán [1,2], Leandro Torres-Díaz [1,2] and Maite Aintzane Castro [1,2,*]

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Academic Editor: Guido Haenen

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2 Center for Interdisciplinary Studies on the Nervous system (CISNe), Universidad Austral de Chile, Casilla 547, Valdivia 5090000, Chile
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Abstract: Ascorbic acid is a key antioxidant of the Central Nervous System (CNS). Under brain activity, ascorbic acid is released from glial reservoirs to the synaptic cleft, where it is taken up by neurons. In neurons, ascorbic acid scavenges reactive oxygen species (ROS) generated during synaptic activity and neuronal metabolism where it is then oxidized to dehydroascorbic acid and released into the extracellular space, where it can be recycled by astrocytes. Other intrinsic properties of ascorbic acid, beyond acting as an antioxidant, are important in its role as a key molecule of the CNS. Ascorbic acid can switch neuronal metabolism from glucose consumption to uptake and use of lactate as a metabolic substrate to sustain synaptic activity. Multiple evidence links oxidative stress with neurodegeneration, positioning redox imbalance and ROS as a cause of neurodegeneration. In this review, we focus on ascorbic acid homeostasis, its functions, how it is used by neurons and recycled to ensure antioxidant supply during synaptic activity and how this antioxidant is dysregulated in neurodegenerative disorders.

Keywords: oxidative stress; brain energy metabolism

www.ncbi.nlm.nih.gov/pmc/articles/PMC4691042/pdf/ijms-16-26095.pdf

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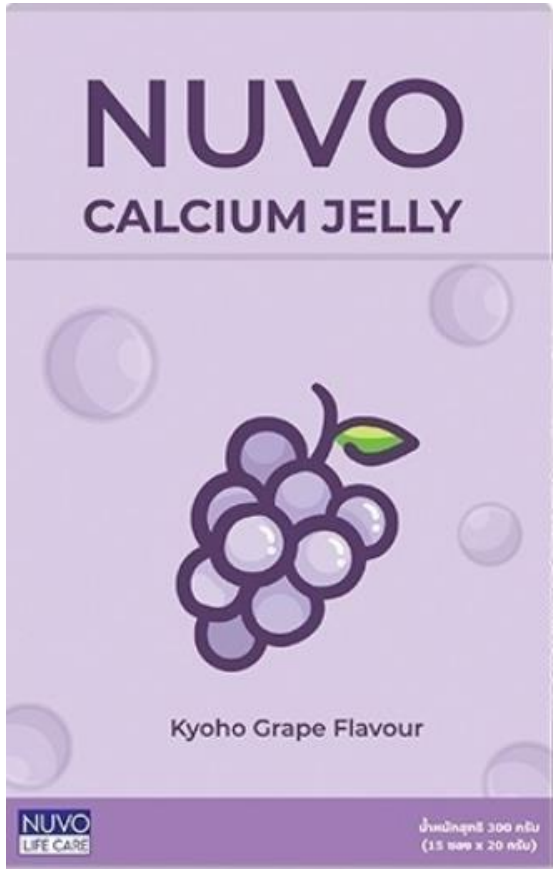

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