

**2<sup>nd</sup> Club**



Club Founder  
**Dr. Mahmoud Bahgat**



**International Pharmacists Club**

## **Nutraceuticals Introduction**

**Sunday 24th Nov. 2024.**  
**9pm Egy 10pm KSA 11pm UAE**



**Dr. Ahmed Mecky**  
**Consultant Trainer Pharmacist**

# Nutraceuticals

## Introduction

Empowerment Through Knowledge



**DR AHMED MECKY**  
Consultant Trainer

# Nutraceuticals

CHARISMA

Quality Solutions





# Objectives

By the end of this course you will be able to:

- Discovering the science behind Nutraceuticals
- Classification and types of Nutraceuticals
- How to search, discover and evaluate the safety and effectiveness of any dietary supplement
- Invading the world of dietary supplements, vitamins, minerals, botanicals and others
- Identify the most effective dietary supplements used for managing the most common cases .
- Exploring new sales gates of the most common dietary supplements





# Market size

The MEA dietary supplements market is expected to grow from US\$ 9,551.77 million in 2021 to US\$ 14,646.02 million by 2028; it is estimated to grow at a CAGR of 6.3% from 2021 to 2028.







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**VITATRON**...The Vitality Formula



**Zinctron**...For Healthy Skin & Hair



**CHROMITRON** ...The Insulin Sensitizer

[www.emfpharm.com](http://www.emfpharm.com)







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0115536666



**إميو-سى حبيبات فوراة في أكياس**  
العبوة 10 أكياس 5 حبيبات كل كيس 5 حبيبات يحتوي على : ...  
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**إل-كارنيتين شراب**  
العبوة 30 ملل بيان التركيب كل 1 مليلتر شراب يحتوي على : ...  
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**إل-كارنيتين بلس**  
العبوة 20 قرص بيان التركيب كل قرص مغلف يحتوي على : ...  
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**إل- أرجينين**  
العبوة 60 قرص بيان التركيب كل قرص يحتوي على : ...  
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## رحلة كلها صحة

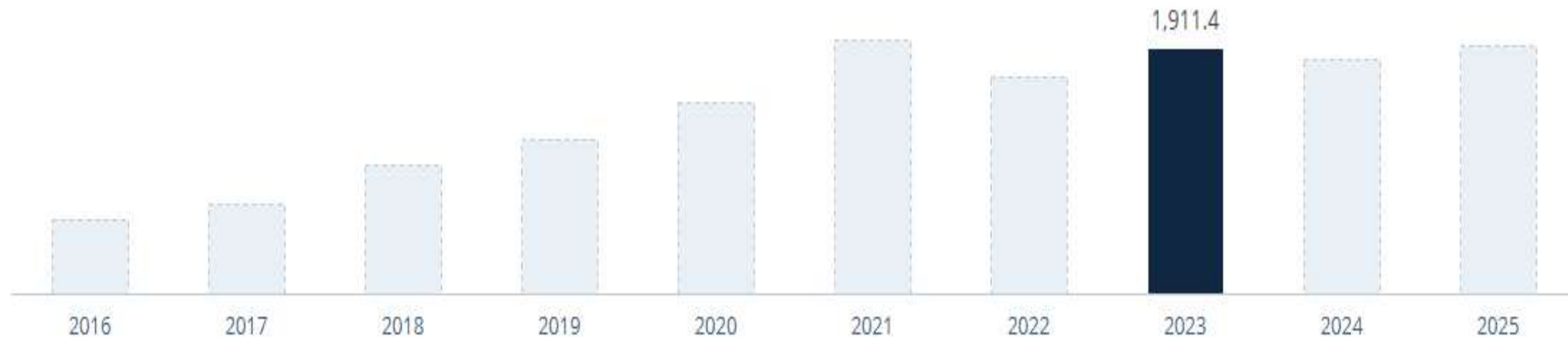


# Iherb sales in millions \$

iherb.com

eCommerce net sales

IN MILLION US\$ ⓘ





# Definition

*Food, or parts of food, that provide **medical** or **health** benefits, including the **prevention** and **treatment** of disease*

CHARISMA  
Quality Solutions



# Types

Medicinal  
Foods



Functional  
Foods



Dietary  
Supplements



# Dietary Supplements

A dietary supplement, defined as the product that

- Is intended to supplement the diet
- & Is labeled as being **a dietary supplement**
- Contains one or more dietary ingredients (including vitamins, minerals, herbs or other botanicals, amino acids, and certain other substances) or their constituents
- Is intended to be taken by mouth, in forms such as tablet, capsule, powder, or liquid





# This definition by DSHEA



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The Free Encyclopedia

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## Dietary Supplement Health and Education Act of 1994

From Wikipedia, the free encyclopedia

The **Dietary Supplement Health and Education Act of 1994** ("**DSHEA**"), is a 1994 statute of [United States Federal legislation](#) which defines and regulates [dietary supplements](#).<sup>[1]</sup>

Under the act, supplements are effectively regulated by the FDA for Good Manufacturing Practices under 21 CFR Part 111.<sup>[2]</sup>

### Contents [\[hide\]](#)

- [1 Background](#)
- [2 Definition of supplement](#)
- [3 Dietary supplement labels](#)
- [4 FDA and DSHEA](#)
- [5 Reception](#)

### Dietary Supplement Health and Education Act of 1994



**Long title**

A bill to amend the Federal Food, Drug, and Cosmetic Act to establish standards with respect to dietary supplements, and for other purposes.



# Functional Foods

According to

## **Academy of Nutrition and Dietetics (AND)**

Whole foods along with fortified, enriched, or enhanced foods that have a potentially beneficial effect on health when consumed as part of a varied diet on a regular basis at effective levels

## **The United States Department of Agriculture (USDA)**

any food, modified food or food ingredient that provides structural, functional or health benefits, thus promoting optimal health, longevity and quality of life.





# Your trusted source of food and nutrition information.

The Academy of Nutrition and Dietetics offers information on nutrition and health, from meal planning and prep to choices that can help prevent or manage health conditions and more.



9

## Dietary Guidance

General Nutrition and Health Information

Dietary Guidelines

MyPlate and Historical Food Pyramid Resources

Interactive Tools

Fraud and Nutrition Misinformation

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## Dietary Guidance



[General Nutrition and Health Information](#)



[Dietary Guidelines for Americans](#)



[Dietary Reference Intakes \(DRIs\)](#)



[MyPlate and Historical Food Pyramid Resources](#)







FUNCTIONAL FOOD EXAMPLES - HIGH FIBRE - AUSTRALIA



# Medicinal Foods

A food which is formulated to be consumed or administered under the supervision of a physician and which is intended for the specific dietary management of a disease or condition for which distinctive nutritional requirements, based on recognized scientific principles, are established by medical evaluation







**U.S. FOOD & DRUG  
ADMINISTRATION**

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## Food

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Medical Foods

# Medical Foods Guidance Documents & Regulatory Information

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The term medical food, as defined in section 5(b) of the Orphan Drug Act (21 U.S.C. 360ee (b) (3)) is "a food which is formulated to be consumed or administered enterally under the supervision of a physician and which is intended for the specific dietary management of a disease or condition for which distinctive nutritional requirements, based on recognized scientific principles, are established by medical evaluation."

- [Guidance for Industry: Frequently Asked Questions About Medical Foods; Second Edition](#)





## OUR INNOVATIVE RANGE

### Aminoven® Infant 10%

The pediatric specific amino acid solution

### Aminosteril® N Hepa

For patients with hepatic insufficiency with or without hepatic encephalopathy

### Aminoven® 10%

The fast-acting amino acid solution

### Aminoven® 5%

The fast-acting amino acid solution

### SMOFIipid®

THE BALANCED MIX FOR LIFE



### Fresubin® HEPA

HEPA stands for Hepatic Encephalopathy



CARE begins with  
Right Nutrition at every stage

Protein-energy malnutrition (PEM) is a transversal condition to all stages of Chronic Liver Disease (CLD) and may be present in 65-90% of patients with advanced disease.

**Recommendations**

**EASL** (European Association for the Study of the Liver) and **ASPM** (American Society for Parenteral Nutrition) guidelines recommend the use of specialized nutrition for patients with CLD.

- SEALs**: Increased energy, reduced protein, reduced fat.
- Customized MCT**: Medium-chain triglycerides (MCT) are easily absorbed and do not require bile salts.
- MCT**: Medium-chain triglycerides (MCT) are easily absorbed and do not require bile salts.
- Essential**: Essential amino acids (EAA) are necessary for protein synthesis and tissue repair.
- Essential**: Essential amino acids (EAA) are necessary for protein synthesis and tissue repair.
- Essential**: Essential amino acids (EAA) are necessary for protein synthesis and tissue repair.

**Fresubin® HEPA** is a specialized nutrition formula designed for patients with CLD. It contains a balanced mix of amino acids, energy, and lipids, including MCT, to support liver function and overall health.

**Freka® PEG** (For long-term enteral nutrition) and **Freka® Trelumina** (Designed for optimal feeding) are also available.

## SMOFIipid®

The unique, well balanced 4-oil mix containing purified natural fish oil



SMOFIipid® offers multiple benefits for optimized patient care such as...

- A favourable immune and inflammatory response compared to ClinOleic
- A positive impact on liver cell function and integrity compared to both ClinOleic and a soybean oil emulsion
- A significantly reduced length of hospital stay compared to soybean oil emulsion, observed in a subgroup



## OUR INNOVATIVE BAGS



### Aminomix® Novum



**SmofKabiven®**  
THE MIX FOR LIFE  
High Amino acids, Optimum Calorie formula



**SmofKabiven®**  
THE MIX FOR LIFE  
Peripheral  
High Amino acids, Optimum Calorie formula



### Kabiven® & Kabiven® Peripheral

Just Open, Mix and Use

# Dietary Supplements







الهيئة القومية لسلامة الغذاء  
National Food Safety Authority



هَيْئَةُ الدَّوَاءِ الْمِصْرِيَّةِ





- Vitamins

**Water-soluble:** B1, B2, B3, B5, B6, B7, B8, B9, B12, C ,**Fat-soluble:** A, D, E, K

- Minerals

**Major elements:** Na, Cl, Ca, Mg, K, P, S, **Trace elements:** Fe, Zn, I, Se, Cu, Mn, F, Cr, Mo

- Amino acids

**Essential aa`:** Histidine, isoleucine, leucine, valine, lysine, methionine, phenylalanine, threonine, and tryptophan ,**Non-essential aa`:** alanine, asparagine, aspartic acid, and glutamic acid ,**Conditional aa`:** arginine, cysteine, glutamine, tyrosine, glycine, ornithine, proline, and serine

- Herbal supplements

Garlic, ginseng, ginkgo Green tea, guarana

- Other nutrients

Cod liver oil, fish oil, Coenzyme Q10, Royal jelly,



# Measuring effectiveness

- Many aspects of natural medicine are influenced by tradition and beliefs passed from one person to another.
- Some natural medicines are used due to traditional or folkloric beliefs
- *Natural Medicines Comprehensive Database* seeks to not perpetuate age-old beliefs and myths, but to replace these with findings from reliable science
- There is no Patency in natural medicines So...!!
- Each natural product is assigned an Effectiveness Rating based on the quality of the evidence for a given indication







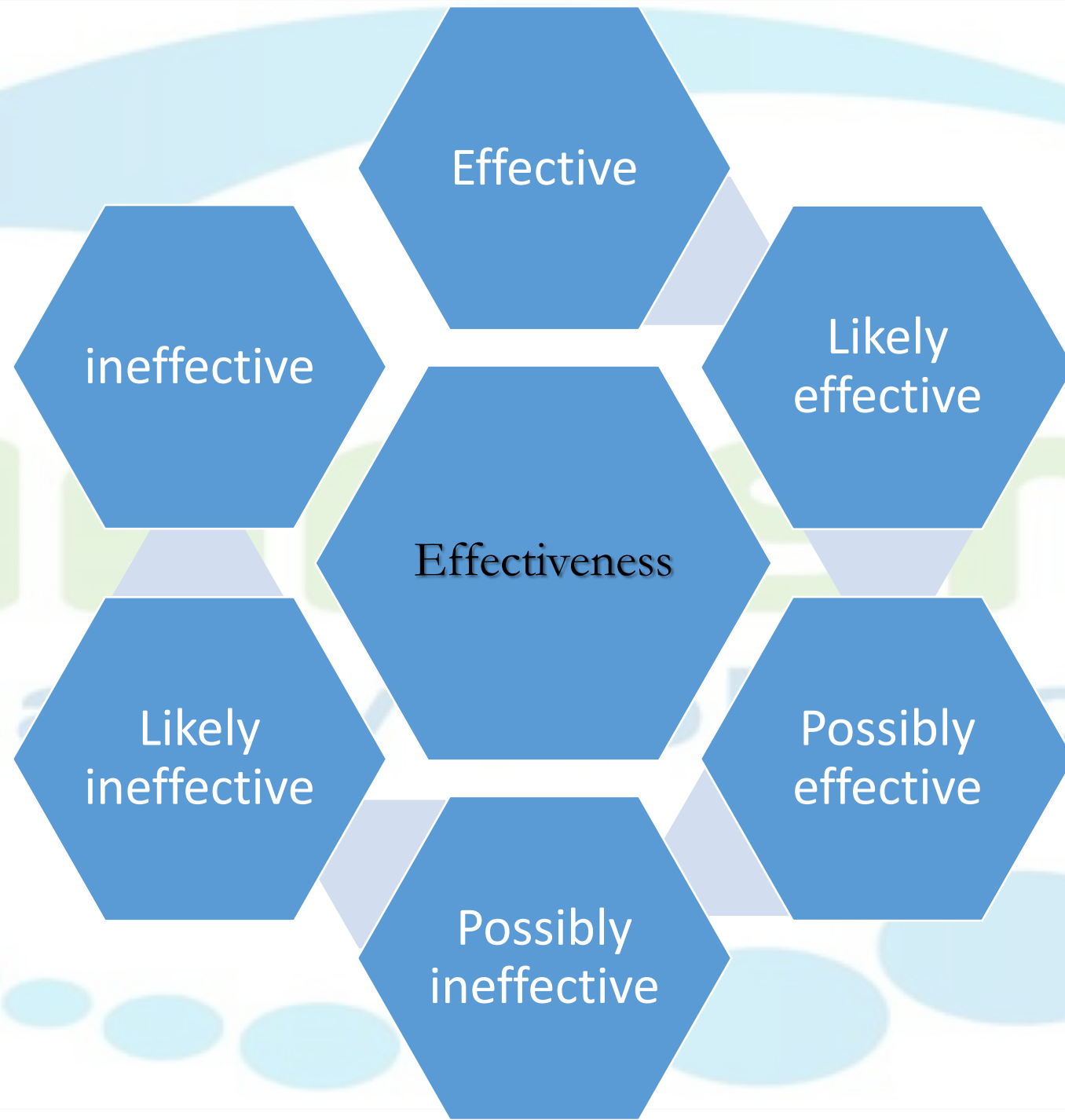
## Food, Herbs & Supplements

# | [A](#) | [B](#) | [C](#) | [D](#) | [E](#) | [F](#) | [G](#) | [H](#) | [I](#) | [J](#) | [K](#) | [L](#) | [M](#) | [N](#) | [O](#) | [P](#) | [Q](#) | [R](#) | [S](#) | [T](#) | [U](#) | [V](#) | [W](#) | [X](#) | [Y](#) | [Z](#)

### A

- [Abscess Root](#)
- [Abuta](#)
- [Acacia rigidula](#)
- [Acai](#)
- [Acerola](#)
- [Acetyl-L-Carnitine](#)
- [Ackee](#)
- [Aconite](#)
- [Activated Charcoal](#)
- [Active hexose correlated compound \(AHCC\)](#)
- [Adenosine](#)
- [Adrafinil](#)
- [Adrenal extract](#)
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- [Androstenedione](#)
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- [Androstenedione](#)
- [Angel's Trumpet](#)
- [Angelica archangelica](#)
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- [Anhydrous Crystalline Maltose](#)
- [Anise](#)
- [Annatto](#)
- [Antineoplastons](#)
- [Antioxidants](#)







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- Alpha Lipoic Acid
- Apple Cider Vinegar
- Black Cohosh
- Calcium
- **Chromium**
- Coenzyme Q – 10
- DHEA
- Flaxseed
- Folic Acid
- Ginko
- Glucosamine
- Melatonin
- Niacin
- Magnesium
- Probiotics
- Red Yeast Rice
- St. John's Wort
- Vitamin C
- Vitamin D
- Vitamin E

Drugs and

Chromium Pic, Chromium Picolinate, Chromium Trivalent, Chromic Chloride, Chromium Acetate, Chromium Chloride, Chromium Nic...  
[See All Names](#)

Ex. Ginseng, Vitamin C, Depression

[Look Up](#)

OVERVIEW

USES

SIDE EFFECTS

INTERACTIONS

DOSING

### CHROMIUM USES & EFFECTIVENESS ⓘ

#### ▼ Likely Effective for:

- Chromium deficiency. Taking chromium by [mouth](#) is effective for preventing chromium deficiency.

#### ▼ Possibly Effective for:

- Diabetes. Some evidence shows that taking chromium picolinate (a chemical compound that contains chromium) by mouth, either alone or along with biotin, can lower fasting blood sugar, lower insulin levels, and help insulin work in people with [type 2 diabetes](#). Also, chromium picolinate might decrease weight gain and fat accumulation in people with [type 2 diabetes](#) who are taking a class of antidiabetes medications called sulfonylureas.

Higher chromium doses might be more effective and work more quickly. Higher doses might also lower the level of certain blood fats (cholesterol and triglycerides) in some people.

### Today on WebMD



#### Vitamins Quiz

Do you know your vitamin ABCs?



#### 11 Supplements for Menopause

Ease hot flashes and other symptoms.



#### Vitamin B12

Are you getting enough?



#### Vitamin D

Wonder pill or overkill?



## Hypoglycemia, Prevention

200 mcg PO qDay

## Dysthymic Disorder

200 mcg PO qDay-BID

## Other Indications & Uses

Weight loss, type 2 diabetes, hypercholesterolemia, athletic performance enhancement, dysthymic disorder, hyperglycemia, hypoglycemia (reactive), low HDL cholesterol (beta blocker-related), muscle mass builder

## Efficacy

- Possibly effective in lowering blood lipids, maintaining glycemic control
- Likely ineffective for weight loss

Next: [Interactions](#) >



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**NATURAL MEDICINES**  
**COMPREHENSIVE DATABASE**



Unbiased, Scientific Clinical Information on Complementary, Alternative, and Integrative Therapies

## Search

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**Search (Help)**

⇒ **Search Product, Ingredient, Drug, Disease, etc.:**  
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Find interactions between drugs and natural products. [More help](#)

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Find nutrient depletion issues caused by medications. [More help](#)





# Levels of Evidence for Assessing Effectiveness

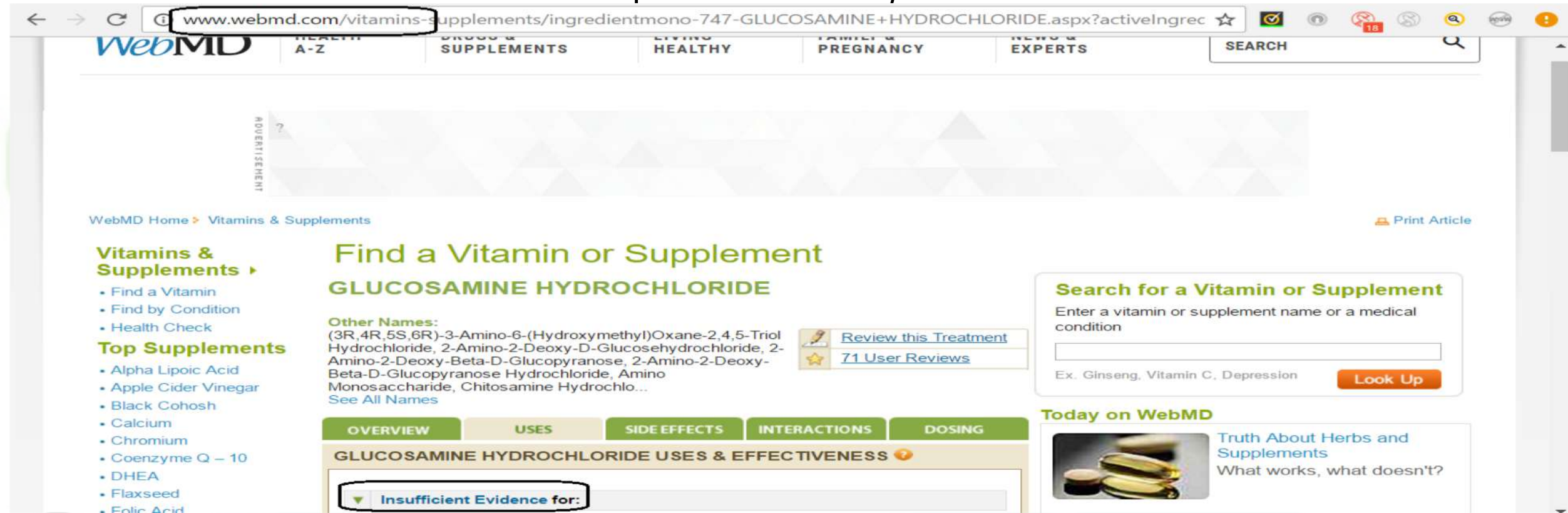
Effectiveness Rating	Level of Evidence
Effective	The product has passed a rigorous scientific review equivalent to a review by the FDA, Health Canada, or other governmental authority and has been found to be effective for a specific indication as an OTC drug, orphan drug, or prescription drug product.
Likely Effective	Reputable references generally agree that the product is effective for the given indication, based on two or more randomized, controlled, clinical trials involving several hundred to several thousand patients, giving positive results for clinically relevant endpoints and published in established, refereed journals.
Possibly Effective	Reputable references suggest that the product might work for the given indication based on one or more clinical trials giving positive results for clinically relevant endpoints.
Possibly Ineffective	Reputable references suggest that the product might not work for the given indication based on one human study giving negative results for clinically relevant end-points.
Likely Ineffective	Reputable references generally agree that the product is not effective for the given indication, based on two or more randomized, controlled, clinical trials giving negative results for clinically relevant end-points and published in established, refereed journals.
Ineffective	Most reputable references agree that the product is not effective for the given indication, or multiple high-quality studies resulted in negative results; there are no equally reliable human studies offering convincing contradictory data.

Because a high level of evidence is required for a product to be rated Likely Effective or above, relatively few products achieve this rating.



# Insufficient evidence

- If we know claims are being made about a product but there is no scientific info available about the effectiveness or ineffectiveness of the product, we'll let you know



WebMD Home > Vitamins & Supplements

**Vitamins & Supplements**

- Find a Vitamin
- Find by Condition
- Health Check

**Top Supplements**

- Alpha Lipoic Acid
- Apple Cider Vinegar
- Black Cohosh
- Calcium
- Chromium
- Coenzyme Q – 10
- DHEA
- Flaxseed
- Folic Acid

**Find a Vitamin or Supplement**

**GLUCOSAMINE HYDROCHLORIDE**

**Other Names:**  
(3R,4R,5S,6R)-3-Amino-6-(Hydroxymethyl)Oxane-2,4,5-Triol Hydrochloride, 2-Amino-2-Deoxy-D-Glucosehydrochloride, 2-Amino-2-Deoxy-Beta-D-Glucopyranose, 2-Amino-2-Deoxy-Beta-D-Glucopyranose Hydrochloride, Amino Monosaccharide, Chitosamine Hydrochlo...  
[See All Names](#)

[Review this Treatment](#)  
[71 User Reviews](#)

**Search for a Vitamin or Supplement**  
Enter a vitamin or supplement name or a medical condition  
  
Ex. Ginseng, Vitamin C, Depression [Look Up](#)

**Today on WebMD**

[Truth About Herbs and Supplements](#)  
What works, what doesn't?

**GLUCOSAMINE HYDROCHLORIDE USES & EFFECTIVENESS**

**OVERVIEW** **USES** **SIDE EFFECTS** **INTERACTIONS** **DOSING**

**Insufficient Evidence for:**





# Reading Label

**DIRECTION :** Take one tablet daily.

<b>Supplement Facts</b>		
Serving Size One Tablet		
Amount Per Serving		% Thai RDA
Vitamin A (10% as beta-Carotene; 90% as Acetate)	5000 IU	200%
Vitamin C (as Ascorbic Acid)	60 mg	100%
Vitamin D (as Cholecalciferol)	400 IU	200%
Vitamin E (as dl-alpha Tocopheryl Acetate)	30 IU	200%
Thiamin (Vitamin B-1) (as Thiamin Mononitrate)	1.5 mg	100%
Riboflavin (Vitamin B-2)	1.7 mg	100%
Niacin (as Niacinamide)	20 mg	100%
Vitamin B-6 (as Pyridoxine Hydrochloride)	2 mg	100%
Folic Acid	400 mcg	200%
Vitamin B-12 (as Cyanocobalamin)	6 mcg	300%
Biotin	30 mcg	20%
Pantothenic Acid (as d-Pantothenate)	10 mg	167%
	162 mg	20%
	18 mg	120%

**OTHER INGREDIENTS**  
Methylcellulose  
Titanium Dioxide  
Acetaminophen  
Polysorbate 80  
Potassium Chloride  
Nickel (as Nickel Sulfate)  
Silicon  
% Thai RDA

**Supplement Facts**  
Iodine (as Potassium Iodide)  
Magnesium (as Magnesium Oxide)  
Zinc (as Zinc Oxide)  
Selenium (as Selenium Dioxide)  
Copper (as Copper Sulfate)  
Manganese (as Manganese Sulfate)  
Chromium (as Chromium Picolinate)  
Molybdenum (as Molybdenum Sulfate)  
Chloride (as Potassium Chloride)  
Potassium (as Potassium Chloride)  
Nickel (as Nickel Sulfate)  
Silicon  
% Thai RDA





- 1 SUGGESTED USE:** For best results, take one tablet daily with a meal. Keep bottle tightly closed. Store in a cool, dry place.

## Supplement Facts

- 2 Serving Size** 1 Tablet  
**Servings Per Container** 45

Amount Per Serving	% Daily Value	3
<b>7 Vitamin D3 (as Cholecalciferol) 800 IU</b>	<b>200%</b>	
<b>Vitamin B6 (as Pyridoxine Hydrochloride) 10 mg</b>	<b>500%</b>	
<b>Calcium (as Calcium Citrate) 500 mg</b>	<b>50%</b>	
<b>Magnesium (as Magnesium Oxide) 80 mg</b>	<b>20%</b>	
<b>Zinc (as Zinc Oxide) 10 mg</b>	<b>67%</b>	
<b>Copper (as Copper Gluconate) 1 mg</b>	<b>50%</b>	
<b>Manganese (as Manganese Gluconate) 1 mg</b>	<b>50%</b>	
<b>Sodium 5 mg</b>	<b>Less than 1%</b>	
<b>Green Tea Leaf Extract 1 mg</b>		<b>4 *</b>
<b>* Daily Value not established.</b>		

- 7 OTHER INGREDIENTS:** Cellulose gel, Croscarmellose Sodium, Magnesium Stearate

- 8 Manufacturer's Contact Information:**  
Distributed by: Company name  
Company Address,  
Phone Number and Website



- 10 Caution:** Consult with your physician before taking this product if you are pregnant or nursing.

- 1 Suggested Use:** Informs consumers how to safely and correctly obtain the recommended amount. Manufacturers may also include other useful information, such as the best time to take the supplement and where it should be stored.

- 2 Serving Size:** This shows consumers how many tablets or capsules they need to take in order to reach the %Daily Value or amounts indicated on the label.

- 3 Percent Daily Value (%DV):** Daily Values (DV) are recommended nutrient intake levels for healthy individuals. These figures are based on the Daily Recommended Intake (DRI) levels established by the Institutes of Medicine (IOM). Percentage DV figures identify what percent of a given nutrient requirement is obtained from a single supplement serving.

- 4 Nutrients without a DV:** These are included in nutritional supplements to help inform consumers about the presence of ingredients that may offer health benefits, but for which the IOM has not yet established intake guidelines.

- 5 Lot Numbers:** These are a series of letters and/or numbers that help track a product's history. If you have questions about a specific product, the manufacturer may request the lot number to help track the product's manufacturing history.

- 6 Expiration Dates:** These are put on vitamin bottles to let consumers know how long the ingredients will be potent and the product will meet all of its quality specifications. Supplements may not be as effective after they have passed their date of expiration.

- 7 Ingredients:** In addition to telling you what vitamins and minerals are included in each tablet or capsule, the list of ingredients points out any potential allergens for individuals. This vitamin label lists ingredients in two areas: in the Supplement Facts box and in the "other ingredients" list.

- 8 Manufacturer's Contact Information:** Responsible manufacturers always include an address or phone number, and sometimes a website, as a means for the public to call and ask questions or report adverse events.

- 9 Quality Marks and Statements:** For example, the USP Verified Mark indicates that all manufacturing processes and operations used to make the dietary supplement have been audited by the United States Pharmacopeia (USP). This information helps inform the consumer about any special quality control procedures or programs that help ensure the quality of the product.

- 10 Cautions and Warnings:** This information helps consumers understand who should avoid or take precautions when taking the product, or the potential side effects of taking a supplement. People taking prescription drugs, pregnant or lactating women, people with serious medical conditions, or people with allergies should be particularly aware of warnings on package labels and should always consult their health care professional before taking a supplement.

Lot: KK10386N  
Exp: 10.02.10

**5 6**



# Reading Dietary Reference Intakes (DRIs)

- RDA (**Recommended Daily Allowance**)

The average daily dietary intake level; sufficient to meet the nutrient requirements of nearly all (97-98 percent) healthy individuals in a group

- AI (**Adequate Intake**)

Is believed to cover the needs of all healthy individuals in the groups, but lack of data or uncertainty in the data prevent being able to specify with confidence the percentage of individuals covered by this intake

- UL (**Tolerable Upper Intake Level**)

Is the highest level of daily nutrient intake that is likely to **pose no risk** of adverse health effects to almost all individuals in the general population



# Vitamins





# Fat soluble Vitamins





Alfacalcidol, Calcifediol, Calcipotriene, Calcitriol, Cholecalciferol (D3) Ergocalciferol (D2)



- Maintain normal blood levels of calcium and phosphorus.
- Maintain proper bone structure
- Maintain immune system



**Causes:** less intake of Vitamin D, less exposure to sunlight, dark skin, kidney defects, obesity  
**Symptoms:** Rickets, Osteomalacia, muscular weakness in addition to weak bones, Cardiovascular problems, Asthma, Cognitive impairment in elders and Cancer in late stages



High doses may cause **hypercalcemia**(renal stones and others)  
•Be careful for those cases Arteriosclerosis, Hypercalcemia, Hyperparathyroidism, Lymphoma and Renal disease, avoid using vitamin D with them



Pregnancy & lactation: Likely safe when used in daily amounts below 4000 units



D



- **Aluminum (Antacids).** Take vitamin D 2hrs before, or 4 hours after antacids (may increase Al absorption)
- **Digoxin (Lanoxin).** May cause fatal cardiac arrhythmia in case of high doses
- **Diltiazem.**
- **Verapamil**
- **Thiazide diuretics.** May cause hypercalcemia (thiazide diuretic decrease Calcium excretion)

- **Osteomalacia (Adult Rickets), Rickets, vitamin D deficiency**
- **Osteoporosis and Corticosteroid-induced osteoporosis**
- **Fall prevention in older people**

- **Immunostimulant** for seasonal flu by about 42%, 1200 IU/d during winter months
- **Muscle weakness/pain**
- **Obesity**(with Calcium)
- **Asthma** and Chronic obstructive pulmonary disease (COPD)
- **Hyperlipidemia**, vitamin D 400 IU plus calcium 1200 mg daily
- **Statin-induced myalgia**, 400 IU daily







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## Why does the Vitamin D Council recommend 5,000 IU/day?

Posted on: [December 10, 2013](#) by [John Cannell, MD](#)

TEST YOUR  
VITAMIN D  
LEVELS AT  
HOME!



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## Ratings

☐ ★★★★★ (4713)☐ ★★★★☆ (8934)☐ ★★★☆☆ (128)☐ ★★☆☆☆ (6)☐ ★☆☆☆☆ (5)

## Price

☐ EGP50 - EGP100 (41)☐ EGP100 - EGP200 (464)☐ EGP200 - EGP400 (2001)☐ EGP400+ (11594)

## Special Offers

+

## Weight

+

## Help With

+



California Gold Nutrition, Vitamin D3 + K2, 25 mcg (1,000 IU), 1 fl oz (30 ml)

★★★★★ 2,493  
1,000+ sold in 30 days

EGP1,077.35



NOW Foods, Vitamin D-3, High Potency, 5,000 IU, 120 Softgels

★★★★★ 234,813  
50,000+ sold in 30 days

[More options available](#)

EGP375.95



NOW Foods, Vitamin D-3, High Potency, 10,000 IU, 120 Softgels

★★★★★ 85,528  
20,000+ sold in 30 days

[More options available](#)

EGP487.56



NOW Foods, Vitamin D-3 & K-2, 120 Veg Capsules

★★★★★ 47,671  
40,000+ sold in 30 days

EGP510.37



NOW Foods, Vitamin D-3, High Potency, 2,000 IU, 240 Softgels



California Gold Nutrition, Vitamin D3, 125 mcg (5,000 IU), 90 Fish Oil Softgels



Life Extension, Vitamins D and K with Sea-Iodine, 60 Capsules



California Gold Nutrition, Vitamin D3, 50 mcg (2,000 IU), 90 Fish Gelatin Capsules

**Special!**

# General notes and guidelines

- **All pregnant and breast feeding** women should take a daily supplement containing **10 micrograms of vitamin D(400 IU)**
- All infants and young children aged **1 months to 5 years** should take a daily supplement containing vitamin D in the form of vitamin drops, to help them meet these requirements
- Infants being fed infant formula will not need vitamin drops until they are receiving **less than 500ml** of infant formula a day, as these products are fortified with vitamin D
- Adults/adolescents who are not exposed to much sun should also take a daily supplement containing 400 IU
- vitamin **D3** helps body absorb more calcium, vitamin **K2** helps body transport it to your bones and teeth rather than letting it sit in your arteries and other soft tissues.







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## Food and Nutrition

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## Nutrition for Healthy Term Infants: Recommendations from Birth to Six Months

### A joint statement of Health Canada, Canadian Paediatric Society, Dietitians of Canada, and Breastfeeding Committee for Canada

This statement by the [Infant Feeding Joint Working Group](#) provides health professionals with evidence-informed principles and recommendations. Provinces, territories, and health organizations can use it as a basis for developing practical feeding guidelines for parents and caregivers in Canada.

This statement promotes the communication of accurate and consistent messages on infant nutrition in the first six months. Guidance on nutrition from six months to two years of age will be covered in a separate statement, [available in 2013/14](#).

For information and ideas about how to answer the questions of parents and caregivers, see:



Serum 25 – (OH) D concentration level	Vitamin D status	Manifestation	Management
< 25 nmol/l (10micrograms/l)	Deficient	Rickets, osteomalacia	Treat with high dose vitamin D
25 – 50 nmol/l (10 – 20micrograms/l)	Insufficient	Associated with disease risk	Vitamin D supplementation OTC – Not to be prescribed
50 – 75 nmol/l (20 – 30micrograms/l)	Adequate	Healthy	Lifestyle advice
> 75 nmol/l (30 micrograms/l)	Optimal	Healthy	None



# The Loading Dose Vitamin D\*Calculator

The calculation for the loading dose is based on the formula published by Van Groningen as follows:

Vitamin D Loading dose (IU) =

45 multiplied by the desired rise in vitamin D level (target vitamin D level – starting vitamin D level in ng/mL) multiplied by body weight in pounds (or in kg\*2.2)

Quality Solutions





The UK's No.1 calcium formula

**Osteocare®** has been scientifically developed on the basis of the very latest research to include calcium, magnesium, vitamin D & zinc which contribute to the maintenance of normal bone health.

Getting enough calcium is especially important for men and women over 50, during pregnancy and breastfeeding, and during and after the menopause.

Balanced with essential magnesium

Osteocare's natural source calcium is carefully balanced with essential magnesium, which also contributes to normal functioning of the nervous system and muscle function, plus vitamin D and zinc.



Nutritional Information	Ax. per 2 tablets	%EC RDA
Vitamin D (as D3-400 IU)	10 µg	200
Calcium	800 mg	100
Magnesium	300 mg	80
Zinc	10 mg	100
Copper	1000 µg	100
Manganese	0.5 mg	25
Selenium	50 µg	91
Boron	0.6 mg	—

\*RDA—Recommended Daily Allowance  
 µg—microgram, mg—milligram,  
 IU—International Units. Energy, protein, fat  
 and carbohydrate content negligible.

### DIRECTIONS

**TWO TABLETS PER DAY WITH A MAIN MEAL:** Swallow with water or a cold drink. Not to be chewed. Do not exceed the recommended intake.

**Osteocare®** can be continued for as long as required and can be taken with other products in the Vitabiotics range.

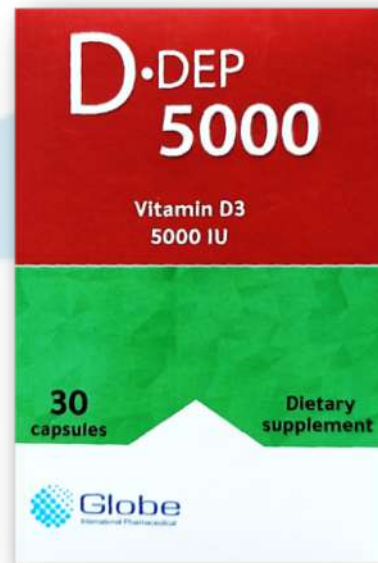
For further information contact:  
Vitabiotics Ltd, 1 Apsley Way,  
London NW2 7HF, England  
Telephone: 020 8955 2662.

[www.osteocare.com](http://www.osteocare.com)


Nutritional Information	Av. per 2 tablets	%EC RDA*
Vitamin D (as D3 400 IU)	10 µg	200
Calcium	800 mg	100
Magnesium	300 mg	80
Zinc	10 mg	100
Copper	1000 µg	100
Manganese	0.5 mg	25
Selenium	50 µg	91
Boron	0.6 mg	—

\*RDA – Recommended Daily Allowance  
 µg – microgram, mg – milligram,  
 IU – International Units Energy, protein, fat  
 and carbohydrate content negligible







E




- Alpha-tocopherol is the most active form in humans
- The natural forms are usually labeled with the letter “d” (for example, d-gamma tocopherol), whereas synthetic forms are labeled “dl” (for example, dl-alpha-tocopherol)
- Found in eggs, fortified cereals, fruit, green leafy vegetables (such as spinach), meat etc.




- Antioxidant effect
- Cardioprotective by inhibiting oxidation of low-density lipoprotein (LDL) cholesterol and through the inhibition of platelet aggregation
- Enhance immune system




Rare




- possible adverse health effects from long-term use (greater than one year)
- Be careful with these cases, Bleeding disorders and Surgery, Myocardial infarction, Prostate cancer and Vitamin k deficiency
- Avoid high doses with diabetes due to increased risk of heart failure



- It is safe if taken at the RDA level. However, maternal supplementation is not generally recommended unless dietary vitamin E falls below the RDA
- Safe in lactation at the RDA level









Anticoagulant/ Antiplatelet drugs: e.g. aspirin, clopidogrel, dalteparin, enoxaparin, heparin and warfarin (added bleeding effect)

- Vitamin E deficiency
- Infertility (asthenospermia or oligoasthenospermia), 200-600 IU daily

- Dementia**(with Vitamin C), 800-2000 IU/d
- Alzheimer's** disease
- Dysmenorrhea**(reduce menstrual pain severity and duration and decrease blood loss), 200 IU twice daily or 500 IU daily starting 2 days before menstruation and continuing through the first 3 days of bleeding
- Premenstrual syndrome(PMS)**
- Physical performance and muscle strength in elderly people
- Rheumatoid arthritis (reduce pain but not inflammation)





## TRIPLE ACTIVE FOR SKIN, HAIR & NAILS

Certain nutrients are of great importance to help maintain healthy looking skin, hair and nails in both women and men because they are delivered via the bloodstream, at the very deepest level.



Perfectil® is designed to complement your daily skin and hair care routine with a range of over 20 micronutrients:

- Vitamins B2, B3 and biotin which contribute to the maintenance of **normal skin**.
- Minerals selenium and zinc which contribute to the maintenance of normal **hair and nails**.

Perfectil® - because skin, hair & nails are deeply nourished from within.

Nutritional information	Av. per tablet	% EC RDA*
Vitamin D (as D3 200 IU)	5 µg	100
Vitamin E (Natural Source)	40 mg α-TE	333
Vitamin C	60 mg	75
Thiamin (Vitamin B1)	8 mg	727
Riboflavin (Vitamin B2)	4 mg	286
Niacin (Vitamin B3)	18 mg NE	113
Vitamin B6	10 mg	714
Folic Acid	400 µg	200
Vitamin B12	9 µg	360
Biotin	45 µg	90
Pantothenic Acid	40 mg	667
Magnesium	75 mg	20
Iron	12 mg	86
Zinc	15 mg	150
Copper	1000 µg	100
Manganese	0.5 mg	25
Selenium	100 µg	182
Chromium GTF	50 µg	125
Iodine	200 µg	133
Cystine	10 mg	—
Each tablet also contains:		
Natural Mixed Carotenoids	2 mg	—
Grape Seed Extract (95% Proanthocyanidins)	15 mg	—

\*RDA – Recommended Daily Allowance  
µg – microgram, mg – milligram, IU – International Units

Originally developed with

*Prof. A. H. Beckett*

**Prof. A. H. Beckett**  
OBE, PhD, DSc  
(1920 - 2010)  
Professor Emeritus,  
University of London



Professor Beckett is cited as a product inventor and former Chairman of Vitabiotics.

## DIRECTIONS

**ONE TABLET PER DAY WITH YOUR MAIN MEAL.**

Swallow with water or a cold drink. Not to be chewed. Do not exceed recommended intake. Only to be taken on a full stomach.

A general multivitamin is not necessary in addition to Perfectil®.

Perfectil® may be used for as long as required, and a regular intake is recommended.

[www.perfectil.com](http://www.perfectil.com)

© Vitabiotics Ltd. Perfectil is a registered trade mark.







Quality Solution







There are two types of vitamin A, retinoids -- that comes from animal products. as liver, kidney, eggs, and dairy products Beta-carotene -- which comes from plants. Ex. dark or yellow vegetables and carrots



- Needed for vision, healthy skin and
  - Vitamin A is essential to maintain intact epithelial tissues
- Natural antioxidant , Research also suggests that vitamin A may reduce death from measles, prevent some types of cancer



Night blindness, Dry eyes (**Xerophthalmia**), Susceptibility to infections skin disorders, infections (such as measles), diarrhea, and lung disorders



**Hypervitaminosis A** : result of altered bone metabolism and altered metabolism of other fat-soluble vitamins, Increase the risk of osteoporosis and hip fracture, particularly in older people , Liver toxicity Dry skin, Hair loss, Teratological effects



**Pregnancy category: X**, a significant increase in birth defects. Sever& even life-threatening. Even twice the daily recommended amount can cause severe birth defects.

FDA recommends pregnant women get their vitamin A from foods containing





The recommended dietary allowance (RDA) of vitamin A during pregnancy is 1,000 RE, which is equal to 3,300 IU of retinol or retinyl esters or 5,000 U in an average U.S. diet containing a mixture of retinol and carotenoids (Food and Nutrition Board, 1980) (Table 2). The RDA of vitamin A during pregnancy was established by extrapolating from that recommended for the nonpregnant adult (800 RE/day or 4,000 IU/day). The International Vitamin A Consultative Group (IVACG) recommended a daily intake of 9.3 RE/kg plus 100 RE during pregnancy (Underwood, '86); this is approximately 620 RE/day (1,800 IU/day) of vitamin A for a 55-kg woman. The World Health Organization (WHO) and IVACG state that a daily supplemental dose of 3,000 RE (10,000 IU) of vitamin A is appropriate in geographical areas or under conditions where vitamin A intake is known to be inadequate and when diet cannot be improved. The USRDA (U.S. recommended daily allowance) of 8,000 IU/day during pregnancy has been established by the U.S. Food and Drug Administration (FDA) as a standard for nutrition labeling, including the labeling of nutritional supplements. Most prenatal vitamin preparations contain 8,000 IU/capsule of vitamin A as a daily supplement. Dietary surveys in the U.S., however, have defined that the average unsupplemented adult diet contains 7,000–8,000 IU/day of vitamin A (Russell-Briefel et al., '85). Therefore, women who are at risk for pregnancy should consider their total dietary intake of vitamin A before taking supplements.

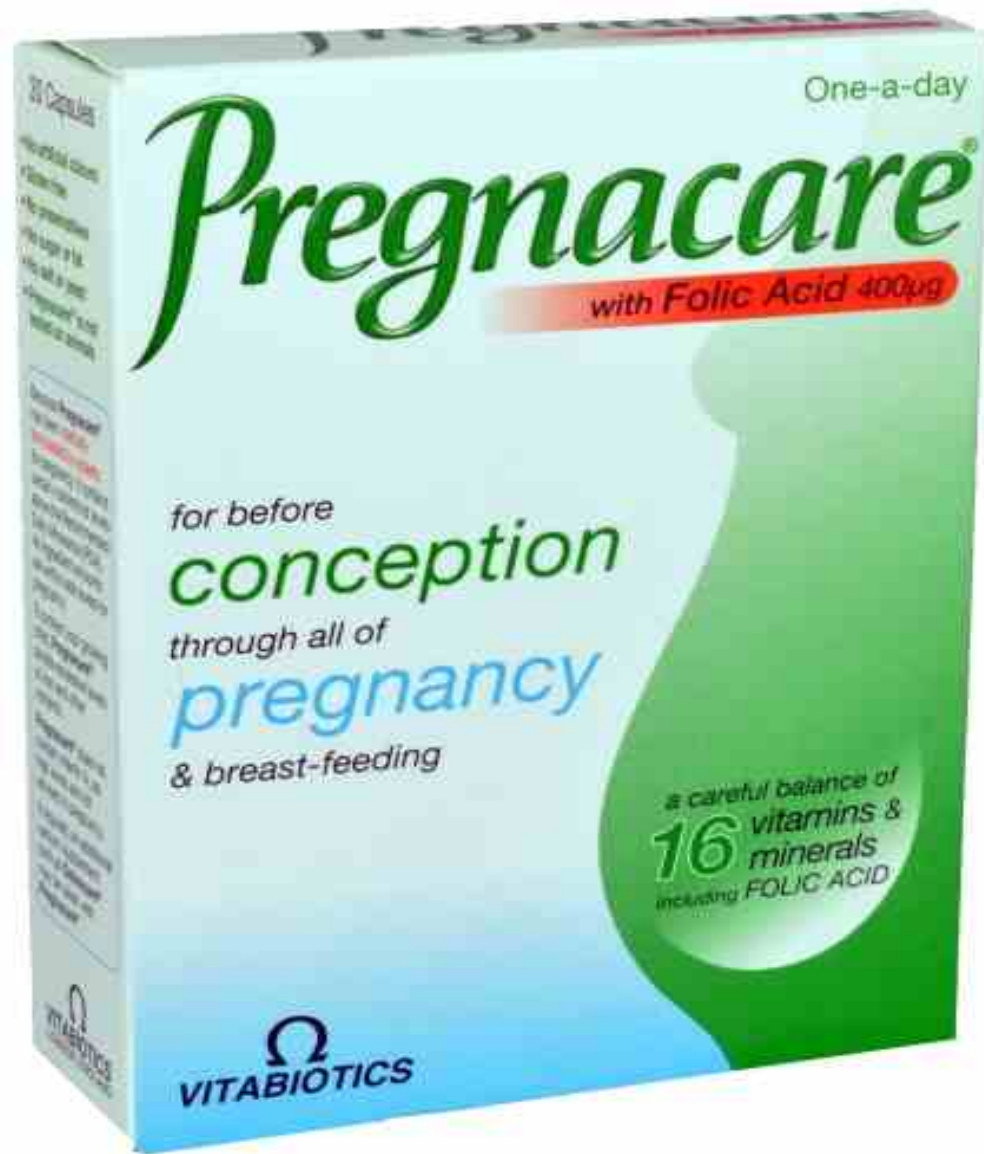
**Vitamin A:** 1 IU is the biological equivalent of 0.3 mcg retinol, or of 0.6 mcg beta-carotene. **Vitamin D:** 1 IU is the biological equivalent of 0.025 mcg cholecalciferol or ergocalciferol. **Vitamin E:** 1 IU is the biological equivalent of 0.67 mg d-alpha-tocopherol, or 0.9 mg of dl-alpha-tocopherol.

and an International Unit (IU)? - Dietary Supplements Ingredient ...  
[https://dietarysupplementdatabase.usda.nih.gov/ingredient\\_calculator/help.php](https://dietarysupplementdatabase.usda.nih.gov/ingredient_calculator/help.php)

5000 IU of beta-carotene = 3000 Mcg = 3 Mg



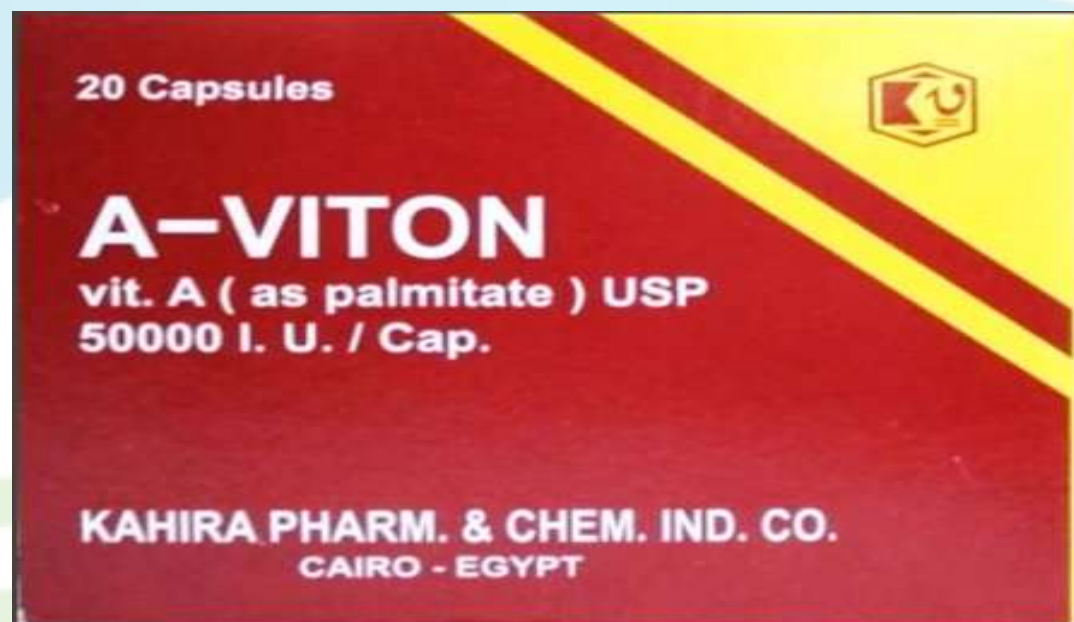




Nutritional Information	Av. per tablet	% EC RDA*
L-Arginine	100 mg	—
Inositol	50 mg	—
N-Acetyl Cysteine	50 mg	—
Betacarotene	3 mg	—
Vitamin D (as D3 600IU)	15 µg	300
Vitamin E	30 mg α-TE	250
Vitamin C	90 mg	113
Thiamin (Vitamin B1)	8 mg	727
Riboflavin (Vitamin B2)	5 mg	357
Niacin (Vitamin B3)	20 mg NE	125
Vitamin B6	10 mg	714
Folic Acid	400 µg	200
Vitamin B12	20 µg	800
Biotin	150 µg	300
Pantothenic Acid	6 mg	100
Iron	14 mg	100
Magnesium	60 mg	16
Zinc	15 mg	150
Iodine	140 µg	93
Selenium	50 µg	91
Copper	1000 µg	100

\*RDA – Recommended Daily Allowance  
µg – microgram, mg – milligram, IU – International Units







# Water soluble vitamins





- Antiscorbutic Vitamin, L-Ascorbic Acid.**
- Found in fruits and vegetables, particularly citrus fruits



- Antioxidant
- Necessary for the formation of collagen in bones, cartilage, muscle, healthy gums and blood vessels.
- Important for healthy gum and blood vessels
- Immunostimulant



**Scurvy** : that may be remembered by the 4 Hs: **H**emorrhage, **H**yperkeratosis, **H**ypochondriasis, and **H**ematologic abnormalities



- Generally safe but **large doses** may be not safe:
- For kidney stone patients, as amounts greater than 1000 mg daily may increase kidney stones formation**
- G6PD**patients, large doses may cause hemolysis
- Other symptoms like diarrhea, nausea and gastritis



Safe, but don't exceed the UL of 2000 mg daily







- Warfarin.** Decrease in warfarin activity with high dose of vitamin C
- Chromium.** Vitamin C increases chromium absorption.

- Vitamin C deficiency (scurvy)
- Common cold

- Iron absorption
- Supportive in treating Stomach Ulcer (H.pylori), 400-1000 mg/d for 7 days
- Systolic Hypertension (with other antihypertensives), 500mg/d to 16 weeks
- Osteoarthritis
- Improving physical performance and strength in the elderly and young boys, 100-1000 mg daily for all athletes
- Gout, 500-1500 mg/d







# Buffered vitamin C

## Calcium ascorbate :

- Buffered vitamin C, derived from beets, is known to be gentler on the stomach than ascorbic acid, which is derived from corn. The acidity of ascorbic vitamin C can easily cause stomach upset, even leading to diarrhea. The buffered form provides the same benefits, while causing less intestinal irritation, and less likelihood of loose bowels



# B<sub>1</sub>



B1 also called Thiamine  
found in many foods including yeast, cereal grains, beans, nuts, and meat



Thiamine is used as part of a treatment for metabolic disorders  
Thiamine is involved in many body functions, including nervous system and muscle function, in combination with B6, B12  
Thiamine is also used for digestive problems including poor appetite, ulcerative colitis



Inadequate intake of thiamin due to: Increased demand (eg, due to hyperthyroidism, pregnancy, lactation, strenuous exercise, or fever), Impaired absorption (eg, due to prolonged diarrhea), Impaired metabolism (eg, due to hepatic insufficiency)  
Thiamine deficiency called beriberi, symptoms including diffuse polyneuropathy, high-output heart failure



Thiamine hypervitaminosis symptoms may include: weakness and a headache, rapid, irregular heart beat and low blood pressure



Thiamine has been assigned to pregnancy category A (injectable) and category C (at doses above RDA)





# Benfotiamine

- Benfotiamine is a synthetic form of vitamin B1 that is fat-soluble
- Because fat-soluble vitamins build up to higher levels in the body, benfotiamine's bioavailability far surpasses that of thiamine
- It stays in bloodstream for longer periods of time, it allows you to make use of the benefits for longer periods of time.



# B<sub>6</sub>



Pyridoxine is vitamin B6  
occur naturally in foods such as meat, poultry, nuts, whole grains, bananas, and avocado



Part of an enzyme needed for protein metabolism; helps make red blood cells, also has an important rule in CNS & skin metabolism,  
Women use pyridoxine for premenstrual syndrome (PMS) and other menstruation problems, "morning sickness" (nausea and vomiting) in early pregnancy



B6 is present in most foods, dietary deficiency is rare. Secondary deficiency may result from various conditions. Symptoms can include peripheral neuropathy, a pellagra-like syndrome, anemia, and seizures in infants, seborrheic dermatitis, glossitis



with high doses of parenteral pyridoxine . peripheral neuropathy, Dermatologic side effects have included allergic contact dermatitis. &Photosensitivity



B6 assigned in pregnancy as category A by the FDA or category C in doses that exceed the RDA, Pyridoxine has been reported to inhibit lactation at large doses





B<sub>6</sub>



Phenytoin: Major interaction, decreasing effectiveness of Phenytoin  
• **Atropine, hyoscyamine, carbidopa/levodopa**  
**Moderate interactions**



- Vitamin B6 deficiency
- Anemia



**Effective for: Certain seizures in infants (pyridoxine-dependent seizures)**  
**Possibly effective for: Macular degeneration, Behavior disorder in children caused by low serotonin levels High blood pressure, Upset stomach and vomiting in pregnancy**



# B<sub>12</sub>



Cobalamin is a general term for compounds with biologic vitamin B12 activity

**Cyanocobalamin**, Hydroxocobalamin, Methylcobalamin

B12 is naturally found in **animal products**, including **fish, meat, poultry**, eggs, **milk**, and **milk** products. Vitamin B12 is generally not present in plant foods



Part of an enzyme needed for making new cells; important to nerve function, Vitamin B12 works closely with vitamin B9, “folic acid”, to help make red blood cells and to help iron work better in the body. B9 & B12 work together to produce S-adenosylmethionine (SAME), a compound involved in immune function and mood



B<sub>12</sub> deficiency can potentially cause severe and irreversible damage, especially to the brain and nervous system. At levels only slightly lower than normal, Megaloblastic anemia, Peripheral neuropathy, Abnormal neurologic and psychiatric symptoms



B12 overdose include itchiness on different body parts and numbness, improper heart functioning, The most serious side effect linked to overtime abuse of this vitamin, is increasing the risk of getting cancer, cancer of the esophagus and stomach, leucukemia



B6 assigned in pregnancy as category C by the FDA, Changes in B12 metabolism during pregnancy affect intestinal absorption, changes in plasma concentrations, and placental transport. The RDA during pregnancy is an increase from 2.0 mcg/day to 2.2 mcg/day to cover fetal storage





# Notes

- Vitamin B9 is an essential nutrient that naturally occurs as folate.
- Low levels of vitamin B9 are associated with an increased risk of several health conditions, including:
  - Elevated homocysteine. (heart disease and stroke )
  - Birth defects.
  - Cancer risk.
- Folate and folic acid are different forms of vitamin B9. While there's a distinct difference between the two
  - Folate is the naturally occurring form of vitamin B9, & Folic acid is a synthetic
- The active form of vitamin B9 is a type of folate known as 5-methyltetrahydrofolate (5-MTHF)
- Quatrefolic® is the amorphous glucosamine salt form of L-methylfolate with a limited stability. This simply means it loses its potency faster than a crystalline-structured type would. Studies have suggested this form has a higher bioavailability than the calcium salts of L-methylfolate.



Table 2: Selected Food Sources of Vitamin B12 [13]

Food	Micrograms (mcg) per serving	Percent DV*
Clams, cooked, 3 ounces	84.1	1,402
Liver, beef, cooked, 3 ounces	70.7	1,178
Breakfast cereals, fortified with 100% of the DV for vitamin B12, 1 serving	6.0	100
Trout, rainbow, wild, cooked, 3 ounces	5.4	90
Salmon, sockeye, cooked, 3 ounces	4.8	80
Trout, rainbow, farmed, cooked, 3 ounces	3.5	58
Tuna fish, light, canned in water, 3 ounces	2.5	42
Cheeseburger, double patty and bun, 1 sandwich	2.1	35
Haddock, cooked, 3 ounces	1.8	30
Breakfast cereals, fortified with 25% of the DV for vitamin B12, 1 serving	1.5	25
Beef, top sirloin, broiled, 3 ounces	1.4	23
Milk, low-fat, 1 cup	1.2	18
Yogurt, fruit, low-fat, 8 ounces	1.1	18
Cheese, Swiss, 1 ounce	0.9	15
Beef taco, 1 soft taco	0.9	15
Ham, cured, roasted, 3 ounces	0.6	10
Egg, whole, hard boiled, 1 large	0.6	10
Chicken, breast meat, roasted, 3 ounces	0.3	5





(97%–98%) healthy individuals.

- Adequate Intake (AI): established when evidence is insufficient to develop an RDA and is set at a level assumed to ensure nutritional adequacy.
- Tolerable Upper Intake Level (UL): maximum daily intake unlikely to cause adverse health effects [5].

Table 1 lists the current RDAs for vitamin B12 in micrograms (mcg) [5]. For infants aged 0 to 12 months, the FNB established an AI for vitamin B12 that is equivalent to the mean intake of vitamin B12 in healthy, breastfed infants.

**Table 1: Recommended Dietary Allowances (RDAs) for Vitamin B12 [5]**

Age	Male	Female	Pregnancy	Lactation
0–6 months*	0.4 mcg	0.4 mcg		
7–12 months*	0.5 mcg	0.5 mcg		
1–3 years	0.9 mcg	0.9 mcg		
4–8 years	1.2 mcg	1.2 mcg		
9–13 years	1.8 mcg	1.8 mcg		
14+ years	2.4 mcg	2.4 mcg	2.6 mcg	2.8 mcg

\* Adequate Intake





**Direction of use:** For Adults, take 1 tablet daily, preferably with a glass of water with or after a meal or as directed by your doctor. Do not exceed the recommended daily allowance.

**Supplement Facts**

Amount Per Serving	% Daily Values*
Vitamin B6 100mg	5,882%
Vitamin B12 500mcg	20,843%
Benfotiamine 300mg	**
Magnesium 200mg	48%
Coenzyme Q10-Cycloseter Complex 120mg	**

\*% Daily Values are based on a 2000 Calorie diet.  
\*\* Daily Value not established.

**Other Ingredients:** Mannitol, Croscarmellose Sodium, Maize Starch, Anhydrous Colloidal Silica, Polyvinylpyrrolidone K25, Magnesium Stearate, Ethyl Cellulose, Carmoisine Red Color.

**This Product Does Not Contain:** Heavy Metals, Wheat, Gluten, Dairy, Soy, Eggs, Nuts, Fish or Paraben.

**NO Yeast, Lactose or Preservatives. Non-GMO.**

**Storage:** Store in a dry place, at a temperature not exceeding 30°C. Keep away from direct sunlight.

**التخزين:** يحفظ في مكان جاف في درجة حرارة لا تزيد 30°م. يحفظ بعيداً عن أشعة الشمس المباشرة.

**This product is not intended to diagnose, treat, cure or prevent any disease and is not considered as a replacement for a balanced nutritional diet or for a healthy lifestyle.**

**لا يعتبر هذا المنتج لتشخيص أو علاج أو مائع للمرضى ولا يعتبر بديل لنظام غذائي متوازن أو أسلوب حياة صحي.**

**معلومات إضافية**

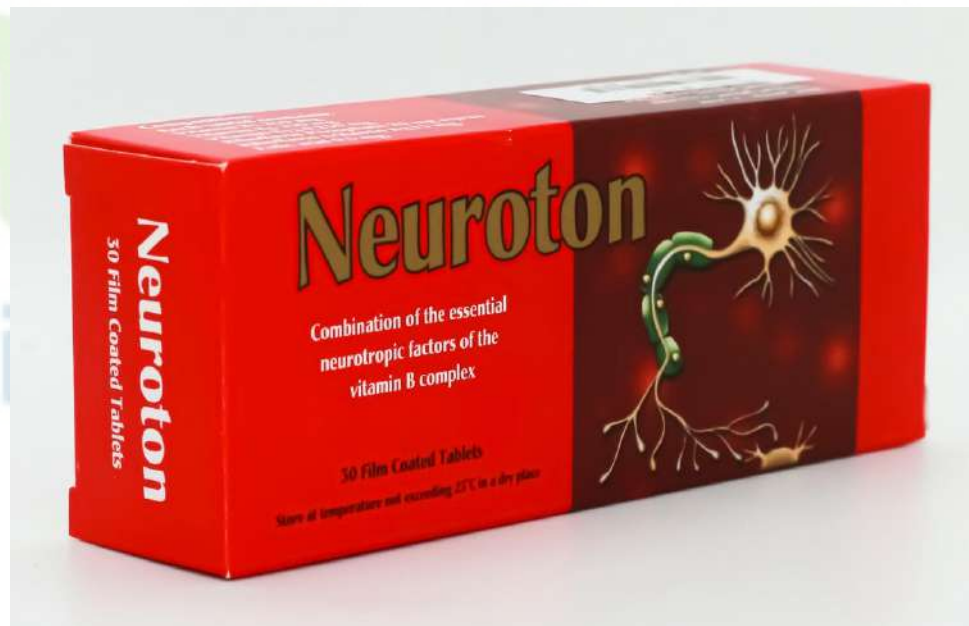
عدد الحبوب في العبوة: 30  
حجم الحبة: 1 قرص ثنائي الطبقة

المادة النشطة	الجرعة
فيتامين ب6	100 مجم
فيتامين ب12	500 ميكروجرام
بنفوتيامين	300 مجم
مغنيسيوم	200 مجم
كوبالامين	120 مجم

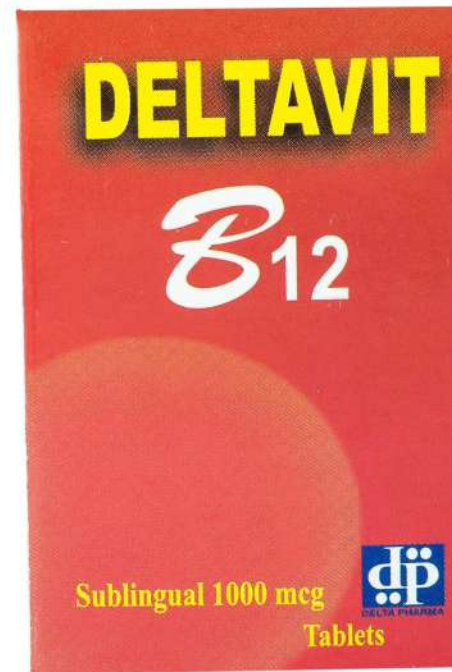
**ملحوظات:** لا تستخدم كبديل للغذاء. لا تستخدم كبديل للعلاج الطبي. لا تستخدم كبديل للأدوية.

**مكونات أخرى:** Mannitol, Croscarmellose Sodium, Maize Starch, Anhydrous Colloidal Silica, Polyvinylpyrrolidone K25, Magnesium Stearate, Ethyl Cellulose, Carmoisine Red Color.

**هذا المنتج لا يستخدم لتشخيص أو علاج أو مائع للمرضى ولا يعتبر بديل لنظام غذائي متوازن أو أسلوب حياة صحي.**



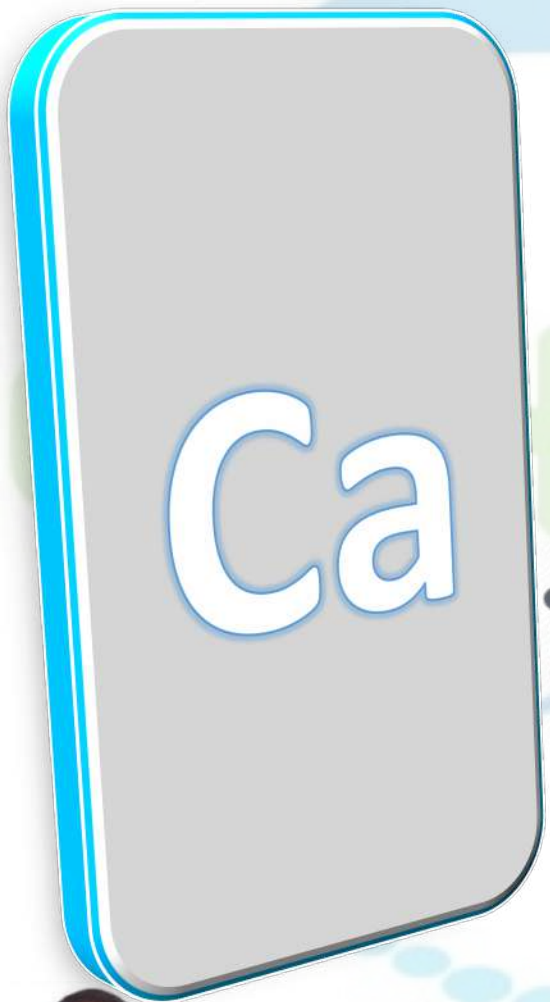




# Minerals







Milk and milk products; canned fish with bones (salmon, sardines); fortified tofu and fortified soy milk; greens (broccoli, mustard)



Important for healthy bones and teeth; helps muscles relax and contract; important in nerve functioning, blood clotting, blood pressure regulation, immune system health



Osteoporosis and Osteomalacia in adults, Rickets in children, **Hypertension**, stroke and cardiovascular diseases



Rare



pregnancy category: Not formally assigned to a pregnancy category  
pregnant should limit their daily intake of calcium to 2500 mg



Ca



Ca and tetracycline, doxycycline, **dolutegravir**, **sodium polystyrene sulfonate**



Dyspepsia (Antacids: Ca carbonate), Hypocalcemia, Increases fetal bone mineralization and density (during pregnancy), Pregnancy-related hypertension and pre-eclampsia  
Pregnancy-related leg cramps (during the second half of pregnancy), Osteoporosis and corticosteroid-induced osteoporosis, Fall prevention in older people (Ca+Vit D), Improve tooth retention in elders



**Premenstrual Syndrome (PMS)**, (significantly reduce depressed mood, water retention, and pain associated with PMS), 1000-1200 mg/d

- **Hypercholesterolemia** (reduce LDL and raise HDL) with vitamin D, 1200 mg/d
- **Mild hypertension**, 1000-1500 mg/d



**Dietary Allowance (mg/day)**

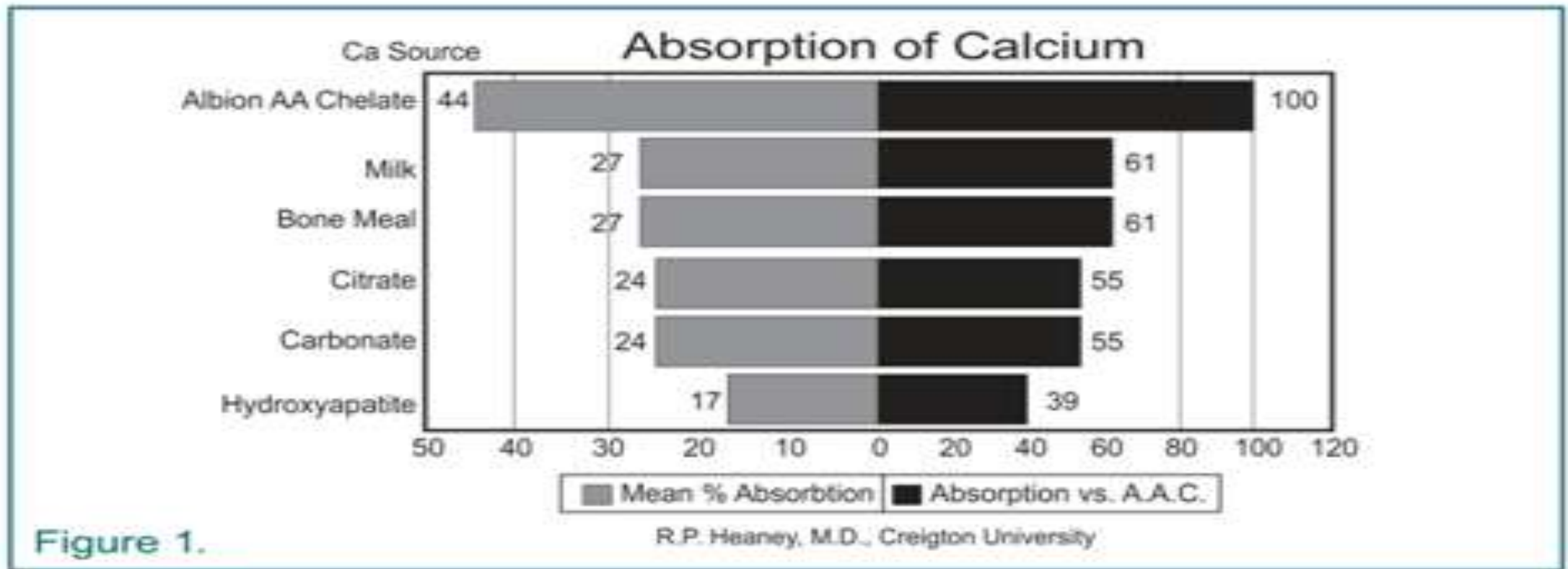
Infants 0 to 6 months	*
Infants 6 to 12 months	*
1 - 3 years old	700
4 - 8 years old	1,000
9 - 13 years old	1,300
14 - 18 years old	1,300
19 - 30 years old	1,000
31 - 50 years old	1,000
51 - 70 years old	1,000
51 - 70 year old females	1,200
71+ years old	1,200
14 - 18 years old, pregnant/lactating	1,300
19 - 50 years old, pregnant/lactating	1,000

\*For infants, adequate intake is 200 mg/day for 0 to 6 months of age and 260 mg/day for 6 to 12 months of age

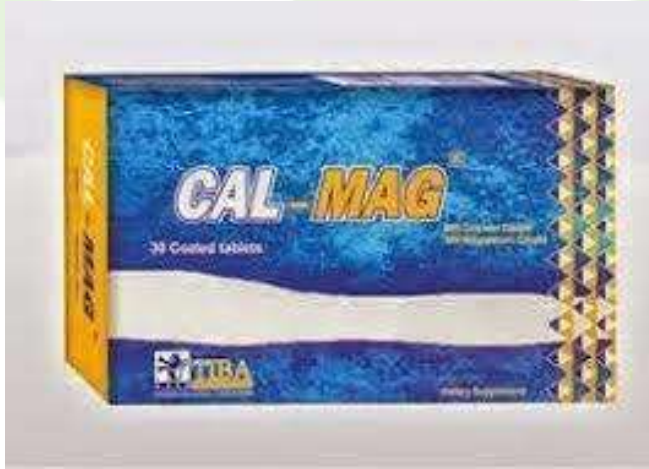
\*\*For infants, adequate intake is 400 IU/day for 0 to 6 months of age and 400 IU/day for 6 to 12 months of age



# Calcium Chelated amino acid









Source: White beans, lentils, spinach, kidney beans, and peas. Lean meat, seafood dark, leafy greens;



Part of a molecule (hemoglobin) found in red blood cells that carries oxygen in the body; needed for energy metabolism,



Iron deficiency anemia



People with iron poisoning need to be hospitalized,  
Treatment: Whole-bowel irrigation, Chelation therapy.



pregnant, are at higher risk of iron deficiency anemia,  
Iron deficiency anemia during pregnancy might increase the risk of a preterm delivery or a low birth weight baby





Fe



Fe and tetracycline, doxycycline, dimercaprol, levodopa, levothyroxine



- Anemia of chronic disease (chronic renal failure & chemotherapy)
- Iron deficiency anemia
- Pregnancy-related iron deficiency anemia
- ACE inhibitor-associated cough, 256 mg ferrous sulfate



- Cognitive function (verbal learning and memory, reverse developmental and learning deficits in iron-deficient children)
- Fatigue, Ferrous sulfate 80 mg daily



# Different classes of iron salts

## Inorganic



- ☐ Ferrous sulfate
- ☐ Ferrous fumarate
- ☐ Ferrous ammonium citrate

## Elemental



- ☐ Carbonyl iron

## Chelated iron



- ☐ Ferrous bis glycinate

## Organic



- ☐ Iron polymaltose





- [Disclaimer](#)

Life Stage	Recommended Amount
Birth to 6 months	0.27 mg
Infants 7–12 months	11 mg
Children 1–3 years	7 mg
Children 4–8 years	10 mg
Children 9–13 years	8 mg
Teens boys 14–18 years	11 mg
Teens girls 14–18 years	15 mg
Adult men 19–50 years	8 mg
Adult women 19–50 years	18 mg
Adults 51 years and older	8 mg
Pregnant teens	27 mg
Pregnant women	27 mg
Breastfeeding teens	10 mg
Breastfeeding women	9 mg



# Notes

- The bioavailability of iron is approximately 14% to 18% from mixed diets that include substantial amounts of meat, seafood, and vitamin C , and 5% to 12% from vegetarian diets
- calcium might reduce the bioavailability of both nonheme and heme iron. So, never Administer Ca and Fe together.
- Some plant-based foods that are good sources of iron, such as spinach, have low iron bioavailability because they contain iron-absorption inhibitors,





For infants from birth to 6 months, the FNB established an AI for iron that is equivalent to the mean intake of iron in healthy, breastfed infants.

**Table 1: Recommended Dietary Allowances (RDAs) for Iron**  
[5]

Age	Male	Female	Pregnancy	Lactation
Birth to 6 months	0.27 mg*	0.27 mg*		
7–12 months	11 mg	11 mg		
1–3 years	7 mg	7 mg		
4–8 years	10 mg	10 mg		
9–13 years	8 mg	8 mg		
14–18 years	11 mg	15 mg	27 mg	10 mg
19–50 years	8 mg	18 mg	27 mg	9 mg
51+ years	8 mg	8 mg		

\* Adequate Intake (AI)



# Feroglobin®

## CAPSULES

### Gentle Iron

folic acid, vit B12

which contribute to the reduction of

**tiredness & fatigue**

Iron contributes to normal formation of

**Haemoglobin  
& red blood cells**

UK's  
**No1**  
IRON  
SUPPLEMENT  
BRAND

Slow  
Release  
Capsules

  
**VITABIOTICS**  
SCIENCE OF HEALTHY LIVING



30 Capsules

For dose  
& Indications  
See the Insert Leaflet

Each capsule contains  
Ferrous Fumarate 73 mg  
Eq. to Iron 24 mg  
Zinc Sulphate H<sub>2</sub>O 27.4 mg  
Eq. to Zinc 10 mg  
Copper Sulphate H<sub>2</sub>O 2.5 mg  
Eq. to Copper 900 mcg  
Folic acid 500 mcg  
Vitamin B12 2 mcg  
Vitamin B6 2 mg  
Pyridoxine HCL

Manufactured by  
**Vitabiotics Egypt**  
for Pharmaceutical  
Industries

4<sup>th</sup> Industrial Zone  
Borg Al-Arab

Under License of  
**Vitabiotics England**

M.O.H. Reg.  
No.: 148/1999

Store at temperature  
not exceeding 30°C  
in a dry place  
out of sight & reach  
of children



6 224001 078019

Feroglobin-B12® is also available  
in 200ml liquid form, ideal for  
growing children.

Nutritional Information	Average per capsule	% RDA*
Iron (as Fumarate)	15 mg	107
Zinc	12 mg	120
Copper	1 mg	100
Folacin (as Folic Acid)	350 µg	175
Vitamin B12	2 µg	80
Vitamin B6	2 mg	143
Vitamin B1	1.5 mg	136
Iodine	100 µg	67

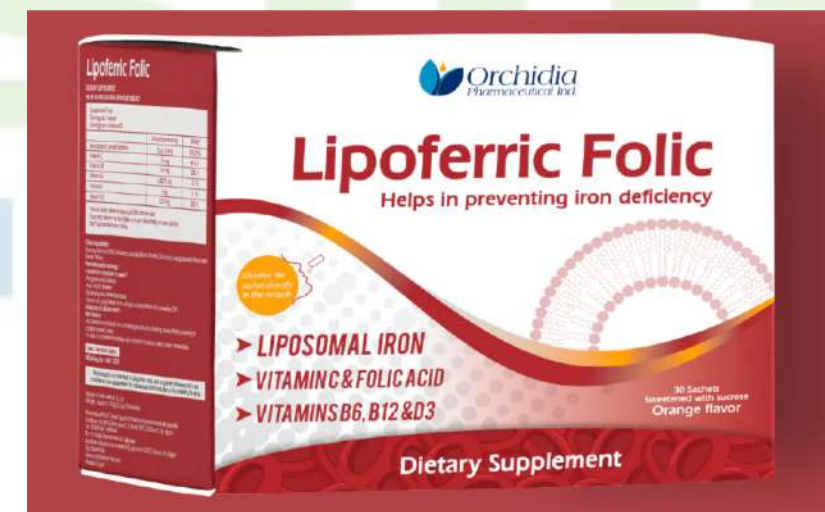
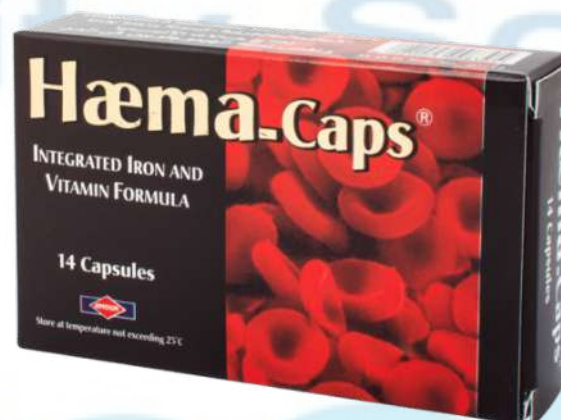
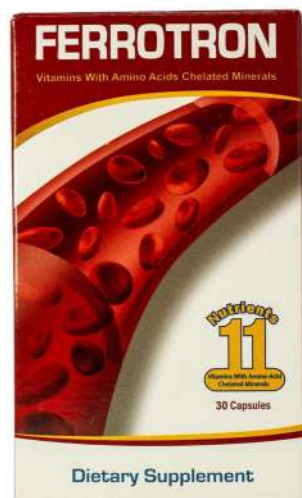
\*RDA – Recommended Daily Allowance

µg – microgram, mg – milligram

Do not exceed the recommended capsule intake.







# Iron pyrophosphate

## Identification

## Pharmacology

Indication

Associated Conditions

Associated Therapies

## • Contraindications & Blackbox Warnings

Pharmacodynamics

Mechanism of action

Absorption

Volume of distribution

Protein binding

Metabolism

### Pharmacodynamics

Iron supplementation typically results in increases in serum iron, transferrin-bound iron, and iron-stored in the form of ferritin in hepatocytes and macrophages. The available iron is usually used in bone marrow for the synthesis of hemoglobin.<sup>9</sup>

### Mechanism of action

The usage of ferric pyrophosphate is based on the strong complex formation between these two species. Besides, the capacity of pyrophosphate to trigger iron removal from transferrin, enhance iron transfer from transferrin to ferritin and promote iron exchange between transferrin molecules. These properties make it a very suitable compound for parenteral administration, iron delivery into circulation and incorporation into hemoglobin.<sup>1</sup>

TARGET	ACTIONS	ORGANISM
<b>A</b> Ferritin light chain	binder	Humans
<b>A</b> Hemoglobin subunit alpha	binder	Humans
<b>A</b> Hemoglobin subunit beta	binder	Humans





# Iron Sucrosomial

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► Pharmaceuticals (Basel). 2018 Oct 4;11(4):97. doi: [10.3390/ph11040097](https://doi.org/10.3390/ph11040097)

## Sucrosomial® Iron: A New Generation Iron for Improving Oral Supplementation

[Susana Gómez-Ramírez](#)<sup>1</sup>, [Elisa Brilli](#)<sup>2</sup>, [Germano Tarantino](#)<sup>3</sup>, [Manuel Muñoz](#)<sup>4,\*</sup>

### ACTIONS

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## Setting & Participants



Retrospective cohort study



Outpatient clinic centers



2021-2022



N = 260  
Mean age = 44.8 years

## Treatment



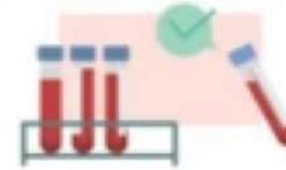
Sucrosomial Iron

Ferrous ascorbate

Ferrous fumarate

Ferrous bis-glycinate

## Analysis



Complete Blood Count (CBC) profile

Iron store indices  
(Serum iron, Serum ferritin, TIBC, TSAT%)

Safety & Tolerability

## Study Outcomes



**Oral Iron salts reported:**

↑ Hemoglobin &  
↑ Hematocrit  
↑ Iron store indices  
(serum iron levels, serum ferritin levels)

Women with  
Iron Deficiency Anemia

Different Oral Iron salts

Hematological Examination


Hematinic potential

### Conclusion:


Better Improvement in Hematological parameters and iron store indices with a good tolerability profile was reported in Sucrosomial Iron supplementation.




Zn




Source: Meats, fish, poultry, leavened whole grains, vegetables  
Oysters contain more zinc per serving than any other food




Part of many enzymes; needed for making protein and genetic material; has a function in taste perception, wound healing, normal fetal development, production of sperm, normal growth and sexual maturation, immune system health




Slowed growth ,Low insulin levels, Loss of appetite, Irritability Rough and dry skin  
Generalized hair loss Slow wound healing




Acute **toxicity** (ingesting more than 200 mg/day of **zinc**) can cause: Abdominal pain, nausea, vomiting and diarrhea. Other reported effects - these include gastric irritation, headache, irritability, lethargy



The daily requirement for zinc during pregnancy is 15 milligrams, but a higher dose may be needed. That's because high intake of folic acid can interfere with absorption of zinc and thus create a deficiency of this mineral. Therefore, it is best to limit intake of folic acid to no more than 800 mg daily







# Zn



Zn and tetracycline, doxycycline, moxifloxacin, azithromycin, resandronate



- Zinc deficiency (improve liver function and glucose tolerance)
- Osteoporosis



- Infants and children diarrhea (reduces the duration and severity of acute and persistent diarrhea)
- Acne(oral and topical)
- Anorexia nervosa, 50-100mg daily for six weeks to six months
- Depression(in addition to antidepressant drugs), 25 mg daily for 12 weeks in addition to antidepressant
- Alzheimer's disease
- Infertility(increase sperm count), 66-500mg of zinc sulfate daily for 13-26 weeks

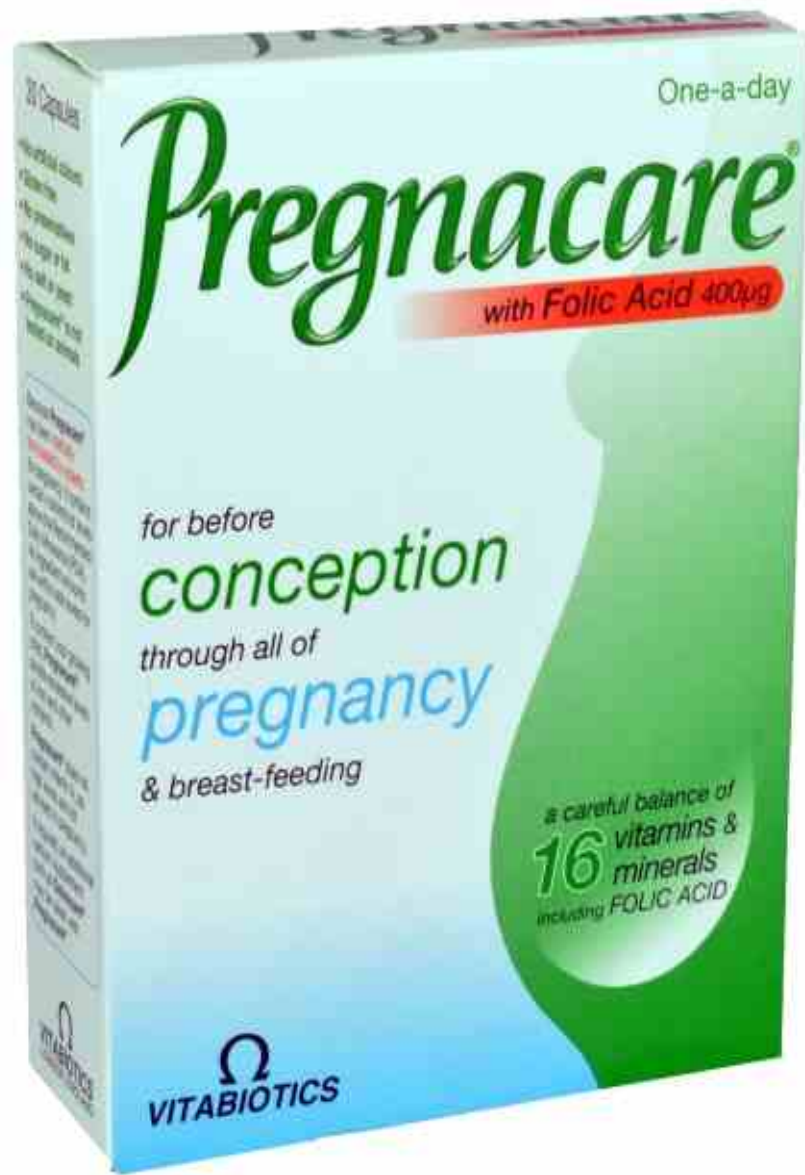
**Table 1: Recommended Dietary Allowances (RDAs)  
for Zinc [2]**

Age	Male	Female	Pregnancy	Lactation
0–6 months	2 mg*	2 mg*		
7–12 months	3 mg	3 mg		
1–3 years	3 mg	3 mg		
4–8 years	5 mg	5 mg		
9–13 years	8 mg	8 mg		
14–18 years	11 mg	9 mg	12 mg	13 mg
19+ years	11 mg	8 mg	11 mg	12 mg

\* Adequate Intake (AI)







Nutritional Information	Av. per tablet	% EC RDA*
L-Arginine	100 mg	—
Inositol	50 mg	—
N-Acetyl Cysteine	50 mg	—
Betacarotene	3 mg	—
Vitamin D (as D3 600IU)	15 µg	300
Vitamin E	30 mg α-TE	250
Vitamin C	90 mg	113
Thiamin (Vitamin B1)	8 mg	727
Riboflavin (Vitamin B2)	5 mg	357
Niacin (Vitamin B3)	20 mg NE	125
Vitamin B6	10 mg	714
Folic Acid	400 µg	200
Vitamin B12	20 µg	800
Biotin	150 µg	300
Pantothenic Acid	6 mg	100
Iron	14 mg	100
Magnesium	60 mg	16
Zinc	15 mg	150
Iodine	140 µg	93
Selenium	50 µg	91
Copper	1000 µg	100
*RDA – Recommended Daily Allowance		
µg – microgram, mg – milligram, IU – International Units		



# Feroglobin<sup>®</sup>

## CAPSULES

### Gentle Iron

folic acid, vit B12

which contribute to the reduction of

**tiredness & fatigue**

Iron contributes to normal formation of

**Haemoglobin  
& red blood cells**

  
**VITABIOTICS**  
SCIENCE OF HEALTHY LIVING

UK's  
**No1**  
IRON  
SUPPLEMENT  
BRAND

Slow  
Release  
Capsules



**30 Capsules**

**For dose  
& Indications  
See the Insert Leaflet**

Each capsule contains

Ferrous Fumarate 73 mg

Eq. to Iron 24 mg

Zinc Sulphate H<sub>2</sub>O 27.4 mg

Eq. to Zinc 10 mg

Copper Sulphate H<sub>2</sub>O 2.5 mg

Eq. to Copper 900 mcg

Folic acid 500 mcg

Vitamin B12 2 mcg

Vitamin B6 2 mg

Pyridoxine HCL

**Manufactured by  
Vitabiotics Egypt  
for Pharmaceutical  
Industries**

4<sup>th</sup> Industrial Zone  
Borg Al-Arab

**Under License of  
Vitabiotics England**

M.O.H. Reg.

No.: 148/1999

Store at temperature

not exceeding 30°C

In a dry place

out of sight & reach

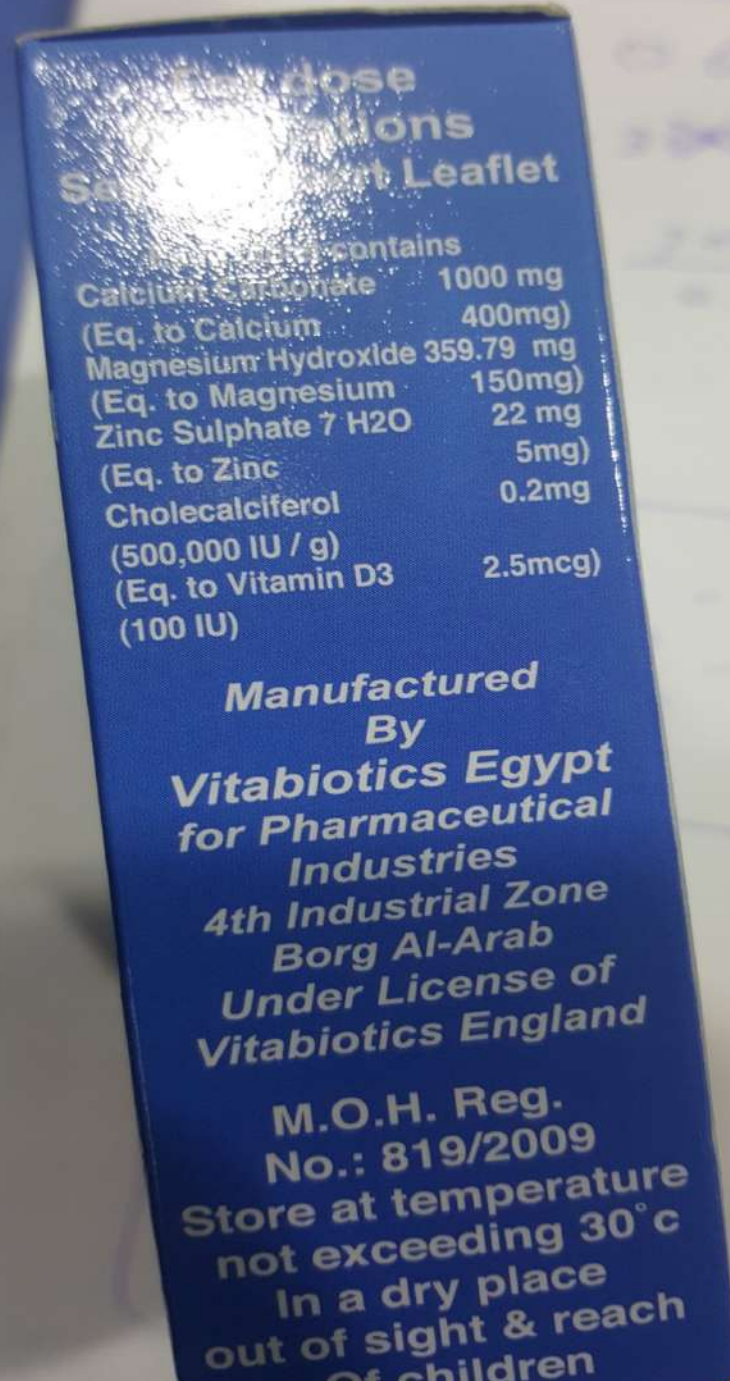
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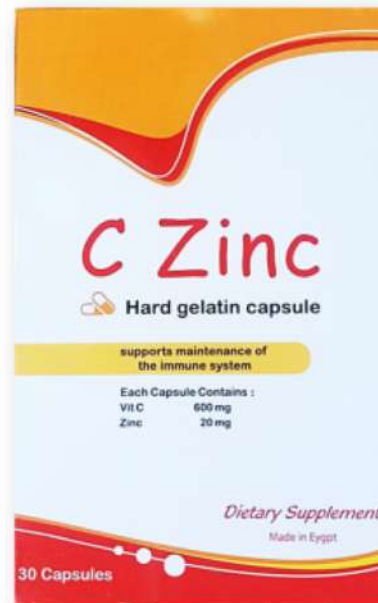
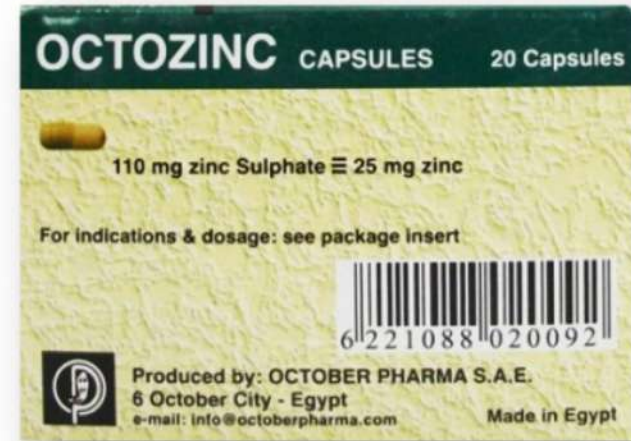


Nutritional Information	Av. per 2 tablets	%EC RDA*
Vitamin D (as D3 400 IU)	10 µg	200
Calcium	800 mg	100
Magnesium	300 mg	80
Zinc	10 mg	100
Copper	1000 µg	100
Manganese	0.5 mg	25
Selenium	50 µg	91
Boron	0.6 mg	—

\*RDA - Recommended Daily Allowance  
µg - microgram, mg - milligram,  
IU - International Units - Energy, protein, fat  
and carbohydrate content negligible









# Types of Magnesium (and What to Use Each For)

**Magnesium citrate:** used to raise magnesium levels and treat constipation.

**Magnesium oxide :** may help relieve digestive complaints like heartburn and constipation.

**Magnesium taurate :** may be the best form for managing high blood sugar and high blood pressure

**Magnesium L-threonate:** may support brain health, potentially aiding the treatment of disorders like depression, Alzheimer's, and memory loss.

**Magnesium glycinate :** used for its calming effects to treat anxiety, depression, and insomnia

**Magnesium orotate :** may bolster heart health by improving energy production in your heart and blood vessel tissue



# Herbals





# Garlic



- Garlic can be classified as herb, spice or vegetables
- Garlic is rich in allicin, diallyl sulfide and S-allylcystein which have tumor fighting properties



- Antihyperlipidemic, antioxidant, antihypertensive, antifungal, antibacterial, anthelmintic, antiviral, antispasmodic, diaphoretic, expectorant, immunostimulant, and anti thrombotic effects
- Platelet aggregation occurred 2-4 hours after garlic ingestion.



Be careful with: Bleeding disorders and surgery, due to bleeding risk and GI irritation



Unsafe, don't use



# Garlic



- Anticoagulant/antiplatelet drugs,
- Herbs that may cause bleeding e.g. Clove, Ginger, Ginkgo, Vitamin E and Fish oil



Atherosclerosis

- Hypertension, 600-1,200mg daily for 12 weeks



- Exercise performance(increase endurance), 900 mg prior to exercise
- Benign prostatic hyperplasia(BPH), improves urinary flow and decreases urinary frequency
- Prophylaxis from common cold



- Coenzyme Q – 10
- DHEA
- Flaxseed
- Folic Acid
- Ginko
- Glucosamine
- Melatonin
- Niacin
- Magnesium
- Probiotics
- Red Yeast Rice
- St. John's Wort
- Vitamin C
- Vitamin D
- Vitamin E

## Drugs and Medications Center ▶

- Find a Drug
- Pill Identifier

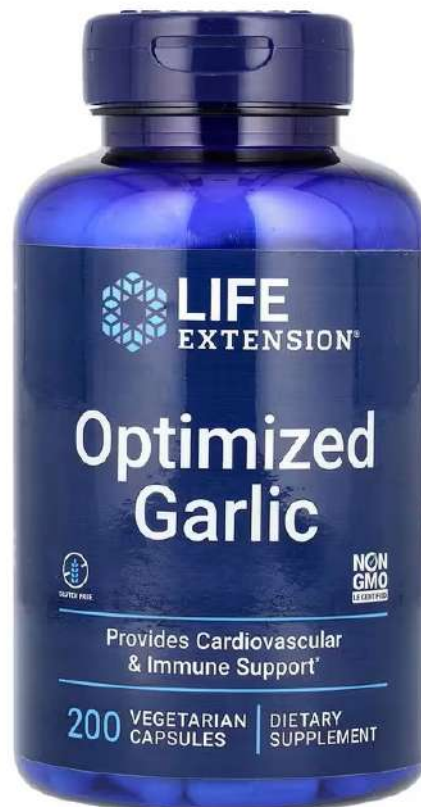
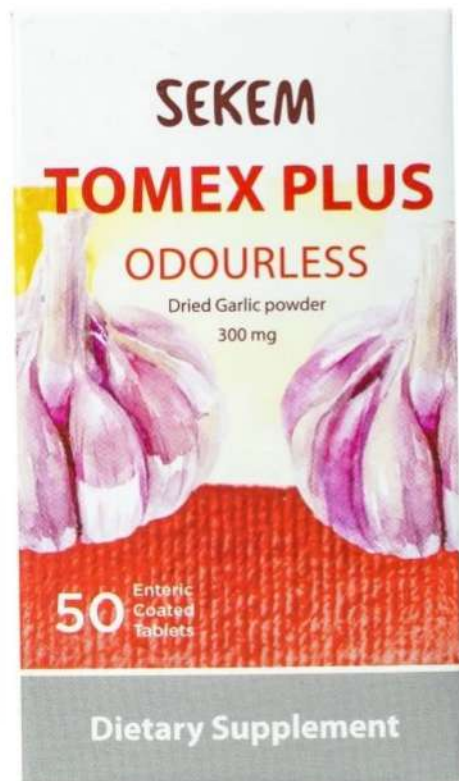
## GARLIC USES & EFFECTIVENESS ?

### ▼ Possibly Effective for:

- Hardening of the arteries (atherosclerosis). As people age, their arteries tend to lose their ability to stretch and flex. Garlic seems to reduce this effect. Taking a specific garlic powder supplement (Allicor, INAT-Farma, Moscow, Russia) twice daily for 24 months seems to reduce how much hardening of the arteries progresses. Higher doses of this product seem to provide more benefits in women than men when taken over a four year period. Research with other products containing garlic along with other ingredients (Kyolic, Total Heart Health, Formula 108, Wakunga) have also shown benefits.
- Colon cancer, rectal cancer. Research suggests that eating garlic can reduce the risk of developing colon or rectal cancer. Also, in people diagnosed with a certain type of colon and rectal tumors, taking high doses of aged garlic extract daily for 12 months seems to reduce the risk of developing new tumors. However, other garlic supplements do not seem to offer the same benefit.
- High blood pressure. Some research shows that garlic by mouth can reduce blood pressure by as much as 7% or 8% in people with high blood pressure. Most studies have used a specific garlic powder product (Kwai, from Lichtwer Pharma).
- Prostate cancer. Men in China who eat about one clove of garlic daily seem to have a 50% lower risk of developing prostate cancer. Also, population research shows that eating garlic may be associated with a reduced risk of developing prostate cancer. But other research suggests that eating garlic does not affect prostate cancer risk in men from Iran. Early clinical research suggests that taking garlic












Ginkgo




Ginkgo seems to improve blood circulation, which might help the brain, eyes, ears, and legs function better





**Possibly Effective for:** Mental function, dementia, Vision problems in people with diabetes, Premenstrual syndrome, leg pain, Vertigo and dizziness, anxiety



There is some concern that ginkgo leaf extract might increase the risk of bruising and bleeding. Ginkgo thins the blood and decreases its ability to form clots



**POSSIBLY UNSAFE** when taken by mouth during pregnancy. It might cause early labor or extra bleeding during delivery if used near that time



Ginkgo



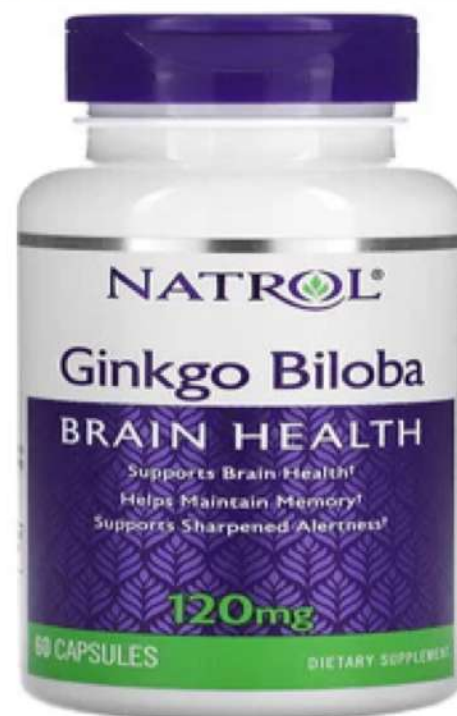
Major interaction with: ibuprofen, Anticoagulant / Antiplatelet drugs,  
Moderate interaction with: alprazolam, buspirone, fluoxetine

- Improve memory and speed of cognitive processing
- Improve Dementia and memory impairment (in elders)
- Vertigo and equilibrium disorders (effective as betahistine)

- Premenstrual syndrome (PMS) relief in breast tenderness and other physical and psychological symptoms associated with PMS**
- Improve Fibromyalgia symptoms (physical fitness levels, emotional feelings, social activities, overall health, and pain), 200 mg/d ginkgo plus 200 mg/d Co-Q10 (Bio-biloba and Bio-Quinone) For 84 days**







Omega-3



Omega-3 fatty acids are a group of polyunsaturated fatty acids that are important for a number of functions in the body, The three principal omega-3 fatty acids are alpha-linolenic acid (ALA), eicosapentaenoic acid (EPA), and docosahexaenoic acid (DHA)



Omega-3 has a strong scientific evidence for using it in: **Coronary heart disease**  
**High blood pressure, Hyperlipidemia (triglyceride lowering), Rheumatoid arthritis**  
**Secondary cardiovascular disease prevention**



Rare



Omega-3 polyunsaturated fatty acids have not been formally assigned to a pregnancy category by the FDA, but has some beneficial effects







# Trends

- **Resveratrol** is a chemical mostly found in red grapes and products made from these grapes (wine, juice). It may be helpful for hay fever and weight loss.

webmd.com/vitamins/ai/ingredientmono-307/resveratrol

daily sheet - ... جداول | presentation tools | photo/video editing | content creator AI | online courses | خدمات اون لاین

Overview **Uses** Side Effects Precautions Interactions

Resveratrol is most commonly used for high cholesterol, cancer, heart disease, and many other conditions. But there is no strong evidence to support resveratrol for any use.

**Uses & Effectiveness** ?

**Possibly Effective for**

- **Hay fever.** Using a **nasal spray** containing resveratrol three times daily for 4 weeks seems to reduce **allergy symptoms** in adults with **seasonal allergies**. Using a nasal spray containing resveratrol and beta-glucans three times daily for 2 months also seems to reduce **allergy symptoms** in children with **seasonal allergies**.
- **Obesity.** Taking resveratrol by **mouth** seems to increase weight loss in **overweight** and obese adults. But it doesn't seem to improve **blood pressure**, **glucose** control, or levels of cholesterol and other fats.

**Possibly Ineffective for**





# Trends

- **Berberine** is a chemical found in some plants like European barberry, goldenseal, goldthread, Oregon grape, philodendron, and tree turmeric.

## Possibly Effective for

- Canker sores. Applying a gel containing berberine can reduce pain, redness, oozing, and the size of canker sores.
- Diabetes. Taking berberine by mouth seems to slightly reduce blood sugar levels in people with diabetes.
- A digestive tract infection that can lead to ulcers (*Helicobacter pylori* or H. pylori). Adding berberine by mouth to multiple medications that are typically used to treat this condition might work as well as other accepted treatments for this condition. These other treatments also use multiple medications.
- High levels of cholesterol or other fats (lipids) in the blood (hyperlipidemia). Taking berberine by mouth, alone or with other ingredients, might help lower total cholesterol, low-density lipoprotein (LDL or "bad") cholesterol, and triglyceride levels in people with high cholesterol.
- High blood pressure. Taking 0.9 grams of berberine by mouth daily along with the blood pressure-lowering drug amlodipine reduces blood pressure better than taking amlodipine alone in people with high blood pressure.
- A hormonal disorder that causes enlarged ovaries with cysts (polycystic ovary syndrome or PCOS). Taking berberine by mouth might lower blood sugar, improve cholesterol and triglyceride levels, reduce testosterone levels, and lower waist-to-hip ratio in people with PCOS.



# Trends

- **Ashwagandha** is an evergreen shrub that grows in Asia and Africa. It is commonly used for stress. There is little evidence for its use as an "adaptogen."

Don't confuse ashwagandha with *Physalis alkekengi*. Both are known as winter cherry. Also, don't confuse ashwagandha with American ginseng, *Panax ginseng*, or eleuthero.

## Uses & Effectiveness <sup>?</sup>

### Possibly Effective for

- Anxiety. Taking ashwagandha by **mouth** might reduce anxiety.
- A type of persistent anxiety marked by exaggerated worry and tension (**generalized anxiety disorder** or **GAD**). Taking ashwagandha by **mouth** seems to improve anxiety in people with persistent anxiety.
- **Insomnia**. Taking ashwagandha by mouth seems to improve overall **sleep** and sleep quality in some people.
- Stress. Taking ashwagandha by mouth seems to help **reduce stress** in some people. It might also help reduce stress-related **weight** gain.

There is interest in using ashwagandha for a number of other purposes, but there isn't enough reliable information to say whether it might be helpful.







# CHARISMA

Quality Solutions

## **Dietary supplements and health**



## Women's health

Pregnancy & lactation

Dysmenorrhea

PMS

Menopause

Hair & skin

## Men's health

infertility

Erectile Dysfunction

Benign prostate hyperplasia

## Weight management

Weight reduction

Weight gain

## Cardiovascular health

Hypertension

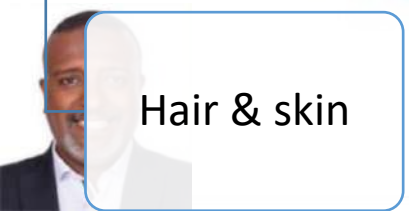
Hypercholesteremia  
Hypertriglyceridemia

## Sports Nutrition

Physical Activity

Nutrition guidelines

Ergogenic aids





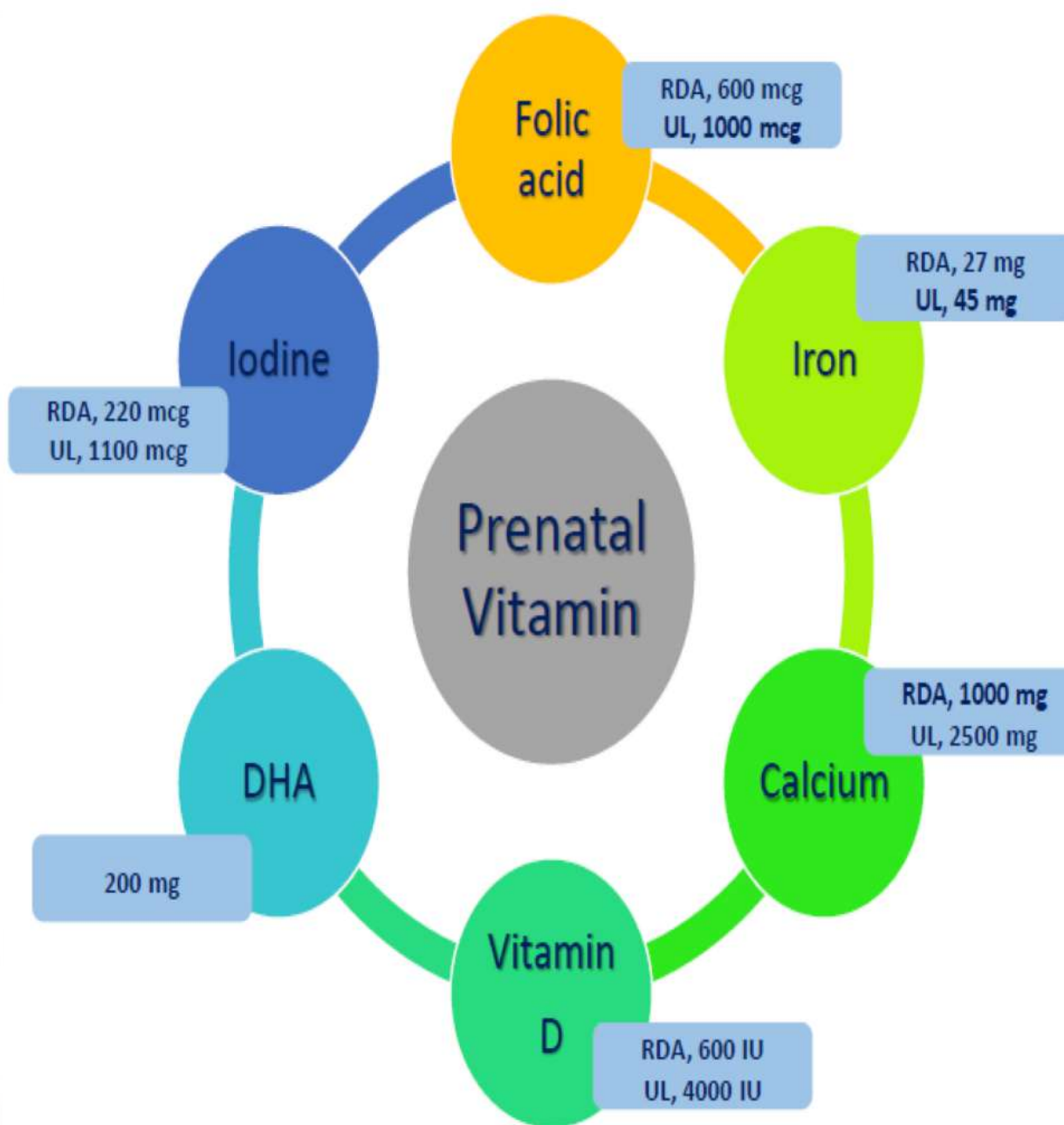
# Women's health



## General Recommendations

- Prenatal Vitamin is recommended to be started before pregnancy by 12 weeks (3 months)
- The ideal prenatal vitamin should contain:  
Folic acid 600 mcg, Iron 27 mg, Calcium 1000 mg, Vitamin D 600 IU, DHA 200 mg, Iodine 150 mcg, Other vitamins and minerals
- Folic acid is very important to protect neonates against **neural tube defect (NTD)** and others like cleft lip and palate
- Iron is important to prevent iron deficiency anemia, premature babies and low birth infants
- Calcium and Vit D are important for both mother and baby bone health
- Prenatal vitamin is highly recommended to be continued after delivery (during lactation) for the optimum health of breast milk and for both mother and baby







### Likely Effective

- **Folic acid**, at least 400-600 mcg continued during the 1st month of pregnancy
- **Vitamin C**, to improve iron absorption (don't exceed 2000 mg/d)

### Possibly Effective

- **Pyridoxine (B6)**, for nausea and vomiting, **25 mg every 8 hours for 72 to 96 hours**
- **Omega-3 Fish oil for the following:**
  - baby's eye and brain growth and early development
  - lower the baby's chances of getting asthma and other allergic conditions
  - Prevent premature delivery
  - Lower postpartum depression
  - **2.7g of omega-3 fatty acids at week 18-30 till delivery**

### Insufficient evidence

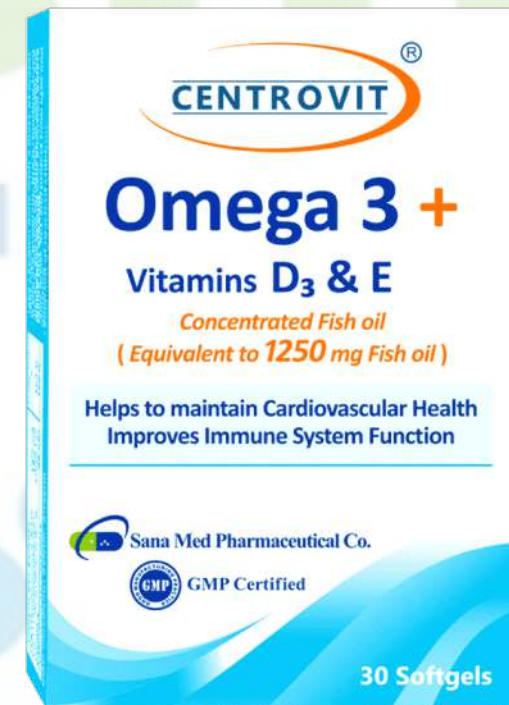
- **Fenugreek** for increasing breast milk flow



- Dysmenorrhea is a term used to describe low anterior pelvic pain, which occurs in association with periods.
- It is thought to be due to an excess or imbalance of prostaglandins and leukotrienes in the menstrual fluid, which in turn produces vasoconstriction in the uterine vessels, causing the uterine contractions, which produce the pain

### Possibly Effective

- **Fish oil omega-3s:** a daily dose of fish oil that gives **EPA 1080 mg and DHA 720 mg (2 gm fish oil)**
- **Vitamin E:** vitamin E **200 IU twice or 500 IU daily** starting 2 days before the menstrual period and continuing through the first 3 days of bleeding
- **Vitamin B1 (Thiamine):** Early research suggests that taking thiamine for **90 days** stops pain



- Physical or mood changes during the days before menstruation, these symptoms happen month after month, and affect a woman's normal life
- Emotional symptoms like depression, anger, irritability and physical symptoms like food craving, breast tenderness, abdominal pain

### Likely Effective

- **Vitamin D + Calcium + Magnesium + Manganese:** significantly reduce depressed mood, water retention, and pain (in combination as in Osteocare)

### Possibly Effective

- **Vitamin E:** it reduces anxiety, craving, and depression with the dose, **400 IU daily**
- **Brewer's Yeast plus multivitamins**
- **Ginkgo Biloba:** **80 mg twice daily**, starting on the **16th day of the menstrual cycle until the 5th day of the next cycle.**
- **Vitamin B6:** **50-100 mg per day**

### Insufficient evidence

- **Royal Jelly with Bee pollen**





- **Menopause** is the time in woman's life when she naturally stops having menstrual periods
- Menopause happens when the ovaries stop making estrogen
- Menopause marks the end of the reproductive years. The average age that women go through menopause is 51 years
- The years before menopause that include fluctuation of estrogen levels that results in change in timing and blood flow amounts of menstruation are called the perimenopause.
- There will hot flashes, sleep problems, night sweats, vaginal dryness and increased urinary tract infections.



## Women's health

## Menopause

### Possibly Effective

- **Soy:** help reducing hot flushes. It can be taken as a concentrated soy isoflavone extracts providing **50-120 mg/day of isoflavones**
- **St. John's wart:** it might help improve hot flushes with **300 mg once daily**

### Insufficient evidence

- **Royal Jelly with Bee pollen**





# Women's health

# Hair and Skin Health

## Hair Loss

### Insufficient evidence

- Vitamin B5 (Pantothenic acid)
- Vitamin B7 (Biotin)**in combination with **Zinc**

## Wrinkles

### Insufficient evidence

- Glutathione
- Pycnogenol** for 3 months



## Acne

### Possibly Effective

- Zinc**(oral and topical), orally with doses of 30-130 mg elemental zinc daily



Supplement Facts	
Servings Per Container: 15 Serving Size: 2 Film Coated Tablets	
Amount Per Serving	% Daily Value*
<b>Betacarotene</b> (Source of Vitamin A) 2mg	**
<b>Vitamin C</b> 80mg	89%
<b>Vitamin D3</b> 20mcg (800IU)	100%
<b>Vitamin E</b> 40mg	267%
<b>Thiamine</b> 8mg	666%
<b>Riboflavin</b> 4mg	307%
<b>Niacin</b> 18mg	113%
<b>Vitamin B6</b> 10mg	588%
<b>Folic Acid</b> 400mcg (DFE 667mcg)	100%
<b>Vitamin B12</b> 20mcg	833%
<b>Biotin</b> 150mcg	500%
<b>Pantothenic Acid</b> 40mg	800%
<b>Iron</b> 14mg	78%
<b>Iodine</b> 200mcg	133%
<b>Magnesium</b> 75mg	18%
<b>Zinc</b> 15mg	136%
<b>Selenium</b> 165mcg	300%
<b>Copper</b> 1mg	111%
<b>Manganese</b> 2mg	87%
<b>Chromium</b> 40mcg	114%
<b>Collagen Hydrolysate</b> 200mg	**
<b>MSM</b> (Methylsulphonylmethane) 200mg	**
<b>L-Cystine</b> 100mg	**
<b>Inositol</b> 200mg	**
<b>L-Methionine</b> 50mg	**
<b>Coenzyme Q10</b> 10mg	**
<b>Silica</b> (Silicon Dioxide) 24.6mg	**
* %Daily Values are based on a 2000 Calorie diet.	
** Daily Value not established.	

## بقاائق تغذوية

المقدار لكل حصة	القيمة المرجعية الغذائية %
بيتا كاروتين (مصدر فيتامين أ) 2 مجم	**
فيتامين ج 80 مجم	89%
فيتامين د3 20 ميكروجرام (800 وحدة دولية)	100%
فيتامين هـ 40 مجم	267%
ثيامين 8 مجم	666%
ريبوفلافين 4 مجم	307%
نياسين 18 مجم	113%
فيتامين ب6 10 مجم	588%
حمض الفوليك 400 ميكروجرام (DFE 667 ميكروجرام)	100%
فيتامين ب12 20 ميكروجرام	833%
بيوتين 150 ميكروجرام	500%
حمض البانتوثنيك 40 مجم	800%
حديد 14 مجم	78%
يود 200 ميكروجرام	133%
مغنيسيوم 75 مجم	18%
زنك 15 مجم	136%
سيلينيوم 165 ميكروجرام	300%
نحاس 1 مجم	111%
منجنيز 2 مجم	87%
كروم 40 ميكروجرام	114%
كولاجين هيدرولايزات 200 مجم	**
إم إس إم (ميثيل سلفونيل ميثان) 200 مجم	**
أل-سيسيتين 100 مجم	**
إينوسيتول 200 مجم	**
أل-ميثيونين 50 مجم	**
كوإنزيم كيو 10 مجم	**
سيليسكا (ثاني أكسيد السيليكون) 24.6 مجم	**
* النسبة المئوية للقيم اليومية تعتمد على نظام غذائي يحتوي على 2000 سعر حراري.	
** القيمة اليومية غير متأسسة.	



# Men's health

CHAIRISMA

Quality Solutions



- Infertility is the inability to get pregnant after trying for at least 1 year without using birth control. About 15% of couples are infertile.
- causes of male infertility: Varicocele (most common cause), Certain medicines, Low sperm count, Or Sperm that are abnormally shaped or that don't move correctly Undescended testicles ,Infections

### Possibly Effective

- **Vitamin E:** 200-600 IU/d
- **L-Carnitine:** increases sperm count and sperm movement, **2 gm daily**

### Insufficient evidence

- **Co Q10:** improves the movement and density of sperm in men, **200-300 mg per day for 6 months**
- **Zinc:** in combination with other antioxidants may increase sperm count



- ED is the inability to get or keep an erection firm enough for sexual intercourse
- **Causes of ED:** Injury and Surgery (bladder or prostate), Diseases e.g. Diabetes, Heart disease, Hypertension, Atherosclerosis, Obesity, Smoking and Alcohol drinking, Drugs side effects e.g. blood pressure drugs, cimetidine, Psychological e.g. stress, anxiety, guilt, depression

### Possibly Effective

- **Panax Ginseng:** 1000 -1800 mg day
  - **L-Arginine:** 5 grams/d for six weeks
- Take care of interactions with nitrates

### Insufficient evidence

**Yohimbine:** 15-30 mg daily is recommended to avoid side effects with high doses  
Take care of interactions with antidepressants & antihypertensive drugs & pseudoephedrine





- Benign prostatic hyperplasia is a condition in men in which the prostate gland is enlarged and not cancerous
- As the prostate enlarges, the gland presses against and pinches the urethra
- Symptoms : Urinary frequency and urgency, Trouble starting a urine stream, A weak or an interrupted urine stream, Dribbling at the end of urination, Nocturia—frequent urination during periods of sleep, Urinary retention, Urinary incontinence, pain during urination.

### Possibly Effective

- **Pumpkin:** 480 mg daily in divided doses due to its diuretic effect
- **Saw Palmetto:** 160 mg twice daily or 320 mg once daily e.g. Prostate Health

### Insufficient evidence

- **Garlic:** helpful for improving urinary flow, decreasing urinary frequency, and other symptoms associated with BPH



However, other reports showed significant improvements in erections and sexual satisfaction with a dose of 1,500 mg per day (12<sup>o</sup>).

While it seems that *Tribulus terrestris* may improve libido in women and men, more research is needed to clarify the extent of the sexual effects of this supplement.

**Summary:** Research has found that *Tribulus terrestris* may improve libido in women and men with reduced sex drives. Studies on the herb as a treatment for erectile dysfunction have shown mixed results, with higher doses appearing to be more beneficial.





# Weight Management





# Weight Management Weight Reduction

- **BMI** = Weight in kilograms / (Height in meters)<sup>2</sup>
- **WAIST CIRCUMFERENCE:** Highly indicated to be assessed for those with BMI 25 to 35 kg/m<sup>2</sup>
- **OVERWEIGHT:** Body Mass Index (BMI) of 25 to 29.9 kg/m<sup>2</sup>
- **OBESITY:** BMI of 30 kg/m<sup>2</sup> or higher

BMI (kg/m <sup>2</sup> )	Grade
18.5 to 24.9	Ideal BMI (normal)
25 to 29.9	Overweight
30 to 34.9	Obese Grade I
35 to 39.9	Obese Grade II
≥40	Obese Grade III (morbidly obese)

Grade	BMI (kg/m <sup>2</sup> )	Waist circumference	
		Men < 102 cm Women < 88 cm	Men >102 cm Women > 88 cm
Underweight	< 18.5	-----	-----
Normal	18.5 – 24.9	-----	-----
Overweight	25 – 29.9	Increased risk	High risk
Obese I	30 – 34.9	High risk	Very high risk
Obese II	35 – 39.9	Very high risk	Very high risk
Extreme obese	40	Extremely high	Extremely high



# Obesity Management Guidelines

## Dietary modifications

- The initial aim should be towards a daily **600 kcal deficit of energy requirements** through change in dietary habits and exercise (NICE guidelines of 2014 guidelines)
- Follow diet tips (Handout)

## Physical activity

- Exercise tends to increase basal metabolic rate and, after vigorous exercise, metabolism is stimulated for the **next 36 hours**.
- Guidelines suggest that adults should be encouraged to do 30 minutes of moderate-intensity activity, either as one session or in bouts of 10 minutes, on at least five days a week
- To prevent obesity, most people would need to do 45-60 minutes of moderate-intensity exercise every day, particularly if calorie intake is not adjusted

## Behavioral change

## Pharmacological interventions

Surgery (when  $BMI \geq 40$ )



# Dietary Supplements

## **Supplements that impair dietary intake**

- Fibers

## **Supplements that act peripherally to impair dietary absorption**

- Chitosan
- Gymnema

## **Supplements that increase energy expenditure**

- Chromium
- Green Tea
- Guarana
- Caffeine

## **Others**

- Garcinia (Hydroxy citric acid, HCA), has a role in preventing fatty acid synthesis and lipogenesis following ingestion of a high carbohydrates diet







# Weight Manageme Weight gaining

- Weight gain requires eating calorie-rich but also nutrient-rich foods --not just high-calorie foods with lots of fat, sugar, or empty calories
- People who are underweight typically are not getting enough calories to fuel their bodies.
- They may be at risk of: Inhibited growth and development especially in children and teens, Fragile bones and teeth, Weak immune system, Anemia, Hair loss

## Healthy Tips:

- Eat more frequently. Eat five to six smaller meals , Choose nutrient-rich foods, Try smoothies and shakes with milk, Exercise



# Weight Management: Weight gaining

## Possibly Effective

- **Branched-chain amino acids** (valine, leucine and isoleucine): BCAA

Taking branched-chain amino acids by mouth seems to reduce anorexia and improve overall nutrition in older, undernourished people. The dose is **4 grams taken three times daily**.

- **Zinc supplement:** it might help increase weight gain and improve depression symptoms in people with anorexia. The dose is **100 mg of zinc gluconate daily**



## Insufficient evidence

- **Brewer's yeast**
- **Bee pollen**
- **Cinnamon drink**







# Cardiovascular Health

Quality Solutions



- **Hypertension (HTN):** It is the increase in blood pressure (tension) in the arteries

### Possibly Effective

- **Garlic:** it decreases blood pressure, systolic by 16 mmHg and diastolic by 9 mmHg. **600 –1200 mg daily divided into 3 doses**
- **Fish oil:** fish oil reduces systolic blood pressure by 3.4-5.5 mmHg and diastolic blood pressure by 2.0-3.5 mmHg in individuals with hypertension. **2-4g of omega-3 fatty acids daily** for up to one year
- **Cod liver oil: 20 ml daily.** 20 ml cod liver oil that on average contains 1.8 grams EPA, 2.2 grams DHA, 15,000 IU vitamin A, and 1500 IU vitamin D
- **Co-enzyme Q10: 120-200 mg per day divided into 2 doses**
- **Calcium:** 1000 –1500 mg daily
- **L-Arginine:** due its vasodilation effect, it is used as **2 g three times daily for six weeks.**
- **Hibiscus:**



- Hypercholesterolemia is an increased cholesterol level in the blood above the normal values
- LDL, the so called, “Bad” cholesterol because increased LDL is a risk for coronary heart disease,
- HDL, the “good” cholesterol prevents atherosclerosis by extracting cholesterol from artery walls
- Hypertriglyceridemia is the case of elevated blood triglycerides over the normal values (greater than 149 mg/dl)





# Hypercholesterolemia

## Likely Effective

**Green Tea:** 3 –10 cups **OR** 1-3 caps daily

## Possibly Effective

**Calcium carbonate**  
**Calcium 1200 mg plus vitamin D 400**  
**Chromium**  
**Magnesium**

## Insufficient Evidence

**Royal Jelly**  
**Vitamin C**  
**Brewer's yeast**

# Hypertriglyceridemia

## Effective

**Fish oil:** Fish oils are thought to lower triglycerides by decreasing secretion of VLDL, increasing VLDL apolipoprotein B secretion, and possibly by increasing VLDL clearance, decreasing VLDL size, and reducing triglyceride transport. The effect is dose-dependent (higher doses have greater effects), 2-4g of omega-3 fatty acids daily for 12 –24 weeks .

## Likely Effective

**Cod liver oil**





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# Sports nutrition

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- Physical activity is any body movement that works your muscles and requires more energy than resting. Walking, running, dancing, swimming, yoga
- Types
  1. Aerobic Activity (Endurance or Cardio activity): At least **30 minutes** of moderate-intensity physical activity (working hard enough to break a sweat, but still able to carry on a conversation)
    - .Moderate-intensity
    - .Vigorous-intensity
  2. Muscle-Strengthening Activity
  3. Bone-Strengthening Activity
  4. Stretching activity





### Protein

- RDA is 0.8-1 g/kg
- energy yielding 4 kcal/gm
- Muscle mass is built when the net protein balance is positive: muscle protein synthesis exceeds muscle protein breakdown
- It is highly recommended for protein supplementation to be pre-exercise (to help increase lean mass and strength and simultaneously reduce fat mass) and post-exercise to make a sufficient pool of amino acids available to repair and build new muscle
- For Endurance Athletes: RDA is 1.2 –1.4 g/kg/d to support nitrogen balance but carbohydrate is better source of energy than protein in this type of sports
- For Strength Athletes: 1.2 to 1.7 g/kg/day (may reach 1.8 g/kg and no more than 2 gm/kg) high-quality proteins such as whey, casein, or soy are effectively used for the maintenance, repair, and synthesis of skeletal muscle proteins



### Carbohydrates

- Carbohydrate, the primary fuel for higher intensity activity, is required to replenish liver and glycogen stores and to prevent low blood sugar during training and performance
- Before Training: RDA is 5-7 g/kg/d and may be increased to reach 10 g/kg/d if intensity has been increased
- After Training : It is 1-1.5 g/kg within 30 min after exercise following training sessions 60-90 minutes, It is highly recommended immediately after exercise to replenish muscle glycogen stores for the next athletics





### Fats

- During prolonged, lower intensity training, fats are a major energy contributor and are stored in muscle as triglycerides for use during activity
- The RDA and acceptable range is 20 –35 % of total energy intake distributed as the following:
  - 1-10% **saturated fats**
  - 2-10% **polyunsaturated fats** e.g. corn oil, safflower oil, soybean oil, fried food, cookies, chips
  - 3-10% **monounsaturated fats** e.g. canola oil, olive oil, peanut oil, avocado

Including sources of essential fatty acids (alpha linolenic acid (omega-3 FA) & linoleic acid (omega-6 FA))





### Vitamins and Minerals

- play an important role in energy production, hemoglobin synthesis, maintenance of bone health, adequate immune function, and protection of body against oxidative damage
- They assist with synthesis and repair of muscle tissue during recovery from exercise and injury
- The most common vitamins and minerals in athletes diet
  - Calcium and vitamin D, B vitamins , Iron, Zinc, Magnesium, Antioxidants such as vitamins C and E, beta-carotene, and selenium
- Athletes who participate in habitual, prolonged and strenuous exercise should consume 100 to 1000 mg vitamin C daily



30  
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supplement for men

**FOOD SUPPLEMENT**  
Food supplements must not replace  
a varied and balanced diet and a  
healthy lifestyle.

As with other food supplements,  
seek professional advice before using  
if you are under medical supervision  
or suffer from food allergies.

**Allergy Advice:** For allergies, see  
ingredients in bold on base of carton.

Not to be taken on an empty stomach  
(see directions on back of box).

\*UK's No1 men's supplement brand.

Store below 25°C in a dry  
place, out of sight and reach  
of children.

### Immune System:

Includes vitamins C, D, B6 and  
B12 with folic acid, copper and  
vitamin A which contribute to normal  
function of the immune system.

### Sport & Exercise:

To be on top of your game you  
can't afford to be tired. Provides  
pantothenic acid and magnesium  
which contribute to the reduction of  
tiredness and fatigue.

### Reproductive Health:

Zinc contributes to normal  
reproduction and the maintenance  
of normal testosterone levels in the  
blood. Plus selenium which contributes  
to normal spermatogenesis.

### DIRECTIONS

**ONE TABLET PER DAY WITH  
YOUR MAIN MEAL.**

Swallow with water or a cold drink.  
Not to be chewed. Do not exceed  
the recommended intake. To be  
taken on a full stomach.

This comprehensive formula replaces other  
Wellman® supplements and multivitamins.  
There is no need to take an additional  
multivitamin.

**For further information contact:**

Vitabiotics Ltd, 1 Apsley Way,  
London NW2 7HF, England,  
Telephone: 020 8955 2662

**www.wellman.co.uk**



### Expert support from Wellman®

Wellman® has been developed to help maintain health in men of all ages. It is ideal  
for those with active and hectic lifestyles. Unlike a general multivitamin the safe  
nutrient levels have been specifically formulated for men.

**Hectic Lifestyle:** Thiamin (vit. B1),  
copper and iron contribute to normal  
energy release. Also includes L-carnitine,  
Siberian Ginseng and Co-enzyme Q10.

Nutritional Information	Av. per Tablet	% EC NRV†
Natural Mixed Carotenoids	2 mg	—
P.A.B.A.	20 mg	—
Siberian Ginseng	20 mg	—
Bioflavonoids	10 mg	—
Co-enzyme Q10	2 mg	—
L-Carnitine	30 mg	—
Silicon	10 mg	—
Arginine	20 mg	—
Methionine	20 mg	—
Vitamin A (2500 IU)	750 µg RE	94
Vitamin D (as D3 200 IU)	5 µg	100
Vitamin E (Natural Source)	20 mg α-TE	167
Vitamin C	60 mg	75
Thiamin (Vitamin B1)	12 mg	1091
Riboflavin (Vitamin B2)	5 mg	357
Niacin (Vitamin B3)	20 mg NE	125
Vitamin B6	9 mg	643
Folic Acid	400 µg	200
Vitamin B12	9 µg	360
Biotin	50 µg	100
Pantothenic Acid	10 mg	167
Magnesium	60 mg	16
Iron	6 mg	43
Zinc	15 mg	150
Copper	1000 µg	100
Manganese	3 mg	150
Selenium	150 µg	273
Chromium	50 µg	125
Iodine	150 µg	100

†NRV – Nutrient Reference Value  
µg – microgram, mg – milligram, IU – International Units

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Ingredients: Bulking Agent: Microcrystalline Cellulose, Magnesium Oxide, Vitamin C (Ascorbic Acid [Carrier: Glyceryl Tristearate]), L-Carnitine  
Tartarate, Zinc Sulphate, Vitamin E (D-Alpha Tocopheryl Acid Succinate) (from **Soya**), Tablet Coating (Hydroxypropylmethylcellulose,  
Hydroxypropylcellulose, Caprylic/Capric Triglyceride, Natural Source Colours [Titanium Dioxide, Iron Oxides]), L-Arginine, Niacin (as  
Nicotinamide), Thiamin (Vitamin B1 as Mononitrate), Para Amino Benzoic Acid, Silicon Dioxide, L-Methionine, Ferrous Fumarate, Citrus  
Bioflavonoids, Pantothenic Acid (as Calcium Salt), Vitamin B6 (Pyridoxine HCl), Natural Mixed Carotenoids (Betacarotene, Modified Starch, Corn  
Starch, Glucose Syrup, Antioxidants: DL-Alpha Tocopherol, Sodium Ascorbate), Vitamin A (Acetate [Carriers: Gum Acacia, Starch, Maltodextrin,  
Antioxidant: DL-Alpha Tocopherol]), Manganese Sulphate, Anti-Caking Agents: Silicon Dioxide & Magnesium Stearate, Riboflavin,  
Hydroxypropylmethylcellulose, Siberian Ginseng Extract, Vitamin D3 (Cholecalciferol [Carriers: Acacia, Sucrose, Corn Starch, Medium Chain  
Triglycerides, Antioxidant: DL-Alpha Tocopherol]), Copper Sulphate, Co-Enzyme Q10, Folic Acid (as Pteroylmethylglutamic Acid), Sodium Selenate,  
Chromium Trichloride, Potassium Iodide, Biotin, Vitamin B12 (as Cyanocobalamin). **Allergy Advice:** For allergies, see ingredients in **bold**.

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OUT OF SIGHT AND REACH OF CHILDREN

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standards of quality control,  
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sensible, balanced formulas,  
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- No artificial colours
- Gluten free
- No preservatives
- No salt or yeast
- Wellman® Original is  
not tested on animals
- Suitable for vegetarians



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### Hydration

- Dehydration (loss of  $>2\%$  body weight) can compromise aerobic exercise performance, particularly in hot weather, and may impair mental/ cognitive performance
  - Skeletal muscle cramps are associated with dehydration, electrolyte deficits, and muscle fatigue.
  - Because dehydration increases the risk of potentially life-threatening heat injury such as heat stroke, athletes should strive for hydration before, during, and after exercise
1. Before Training: At least 4 hours before exercise, individuals should drink about 5 to 7 mL/kg body weight of water or a sport beverage.
  2. During Training: Rehydrate during exercise with 180-235 ml of cold fluid at 10-15 mins intervals
  3. After Training: At least (450 to 675 mL) of fluid for every pound (0.5 kg) of body weight lost during exercise





- performance enhancer, or **ergogenic aid**, is anything that gives you a mental or physical edge while exercising or competing
- Caffeine, Creatine, Carnitine, BCAA,

### Caffeine:

- Possibly Effective , It seems to increase muscle strength by 7% and physical endurance by 14%
- Dose: 1-9 mg/kg or 200-300 mg before the exercise (avoid long term use)
- Adverse Effects: Hypertension, arrhythmia, hyperglycemia, headaches, anxiety, sleep disturbances

### L-Carnitine :

- Intense exercise has been linked to a decrease in L-carnitine blood levels. However, research on the use of L-carnitine for improving athletic performance is inconsistent.
- Some studies suggest that L-carnitine improves athletic performance and endurance



## Branched Chain Amino Acid BCAA

- Branched-chain amino acids (BCAAs) consist of three amino acids: leucine, isoleucine, and valine
- ***Possibly Effective:*** in reducing muscle breakdown during exercise
- ***Insufficient Reliable Evidence*** : in Improving athletic performance

## Creatine

- ***Possibly Effective:*** in increasing both the force of muscle contraction (by boosting ATP levels) and the duration of anaerobic exercise. It improves performance during high-intensity bursts of cycling, sprinting, swimming, or rowing
- *carbohydrate in combination with creatine will increase the muscle concentration of creatine by 60% more than creatine alone*
- high doses may be associated with renal, hepatic and cardiac problems



Sport drinks

Creatine

Chromium  
picolinate

Whey Protein



Multivitamins

caffeine

L-Carnitine

BCAA







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**Thanks**

