

Men's Health

Facts



What factors are involved in a man's health? In this issue, we offer general guidelines for good health and some specifics about the prostate, including the production and role of testosterone. Through proper nutrition, which

includes both a good diet and nutritional supplements, a man can maintain youthful integrity and abundant vitality in all matters of expression, both physical and intimate.

BASIC NUTRITIONAL NEEDS

Each of us has different nutritional requirements. One's gender, behavior, lifestyle and interaction with the environment all impact these needs. Life's stresses, combined with years of poor health behavior (such as smoking and sedentary jobs), can seriously impair the body's ability to maintain homeostasis, a state of balance.

But no matter how different people are in size, appearance, activity or age, we all need the same nutrients; what differs considerably is the amount of nutrients needed.¹

Most of the once-daily type supplements in today's marketplace do not fully take into account a man's special nutritional needs, needs resulting from aspects such as larger body size and greater physical activity levels.

THE MIGHT OF MINERALS

This is particularly true when it comes to minerals, an essential component of nutrition. The typical once-daily supplement can be very low in mineral content, which could lull their consumers into a false sense of "mineral security" because we all have different individual needs, those who take only a once-daily supplement may not be getting all they need for good health in one tablet.

Generally, consumers have a fairly broad knowledge of vitamins and how they work in the body but may not have the whole picture when it comes to minerals. In the body, minerals act as the major transmission junctions and switches for the electrical impulses that flow from the brain to muscle receptors sites where they "tell" the muscle what to do. Minerals are engaged in almost every physical transaction in the body. One could not breathe, eat or drink without the aid of minerals. Minerals are absolutely essential for health.

TEENS' SPECIAL NEEDS

Nutritional counselors are well aware of the need for certain nutrients at special times. Each time we form a nutritional program for someone, we draw on this knowledge. This principle is clearly illustrated in the varying amounts of **zinc, calcium, B-complex vitamins, pantothenic acid** and **lipotropic vitamins** that are needed at the different age levels of growing children and adults.

During their teen years, for example, young men need increased amounts of nutrients, especially those involved in the growth of bones (such as **calcium**) and for the reproductive system. Growth increases the need for structural materials, such as protein and minerals; calories, since energy is needed to build body tissue; and nutrients, to help regulate body processes.²

Zinc is important for healthy skin and in strengthening the immune system. **Pantothenic acid** should also be increased to help the teenager deal with the physical stresses of growing up and for its contribution to energy production. During this same period, a solid base of the **lipotropic vitamins**, such as choline and inositol is also desirable. Lipotropic vitamins promote and support the transport and utilization of fats and help to prevent accumulation of fats in the liver, while **B-complex nutrients** work in a variety of ways. They help the nervous system function and are essential for proper functioning of the liver and gastrointestinal tract, and for metabolism of carbohydrates, fats and proteins. Known for their contribution to energy enhancement, B-complex vitamins also contribute to healthy muscles, skin, hair and eyes.

THE PROSTATE

Similar in size and texture to a chestnut, the prostate is the largest accessory gland of the male reproductive tract. The prostate slowly increases in size from birth to puberty then grows at an increased pace until a man enters his 30s. Its size then becomes stable and remains so until about age 45, when further enlargement may occur. For reasons not yet completely understood, the prostate frequently enlarges in older men.

The prostate secretes a milky, slightly acidic fluid containing enzymes that balance the acid levels of interacting fluids and help sperm motility. Although the focus of intensive, ongoing research, the prostate remains one of the body's least understood structures. It is known that the hormone testosterone stimulates zinc uptake and concentration in the prostate, which parallels its stimulation of citrate accumulation and secretion.³

KEY PROSTATE NUTRIENTS

Zinc, a component of semen, plays an important role in the processes of fertility, reproduction and sexual maturation. It is believed that at least 1 mg of zinc is secreted in one ejaculum.

Magnesium is vital in muscle contractility, which is important to the prostate because the muscular contractility precedes secretion of prostatic fluid.

Calcium, involved in a multitude of processes, is also an activator of several enzymes involved in neuromuscular function.⁴

THE TRUTH ABOUT TESTOSTERONE

Like other androgens, testosterone produces or stimulates the development of secondary male characteristics apart from the testes, referred to as masculinization.⁵ Although testosterone is the "stuff" that makes men act "like men," women also produce and utilize this androgen in lesser amounts.

Testosterone stimulates metabolism and increases muscular strength.⁶ It accelerates tissue growth and stimulates blood flow.

It is essential for normal sexual behavior and the occurrence of erections, and normal growth and development of male accessory sexual organs. It also affects many other metabolic activities.⁷

All steroid hormones in humans, including testosterone, are derived from cholesterol.⁸ Hormones function in a complex hierarchy. For example, although it is a steroid hormone, testosterone relies on other hormones to activate its production.⁹ Consequently, testosterone production depends on the endocrine system's efficiency.

SUPPORT FOR TESTOSTERONE PRODUCTION

Vitamin C has a co-enzymatic function in metabolism of amino acids and biosynthesis of steroid hormones, such as testosterone.¹⁰

Pantothenic acid has a role in synthesizing choline, cholesterol, phospholipids and steroid hormones.¹¹ If this vitamin is low, the result will be lower levels of co-enzyme A, necessary for energy production. In turn, this will affect synthesis of cholesterol, a precursor to testosterone.¹²

Niacin participates in the synthesis of fat and cholesterol, the raw material used for testosterone production.

Arginine, an essential amino acid, is a building block for enzymes, hormones, vitamins and structural proteins.¹³

ABOUT MICHAEL'S® PRODUCTS

MICHAEL'S® NATUROPATHIC PROGRAMS combine the basics and the newest developments along with the finest ingredients and the most effective formulations for your total healthcare. Each program is designed to produce physical results you can feel, owing to innovative nutritional supplementation with specific, targeted **FACTORS OF LIFE®** products. **MICHAEL'S® FACTORS OF LIFE®** formulas are synergistically complete. Each contains combinations of nutrients that work together to increase assimilation and reduce the amount of binders and fillers. The formulas contain organically grown herbs, when available, to ensure the highest quality. These high-potency, all-natural products are manufactured with food-grade fillers, binders and enteric coatings. Most are suitable for vegetarians and those who follow a kosher diet.

Every product includes a best if used by date to ensure freshness and is double safety-sealed with an outer shrink-wrap and inner-bottle freshness seal. As is normal with all-natural products, some color and texture variations may occur but this does not affect product purity, potency or assimilation.

■ FOR MEN

This daily multivitamin and herb formula contains specific nutrients in amounts appropriate for a man's needs, including vitamin C, saw palmetto and ginseng.

■ TEEN BOYS

This formula is rich in B-Complex nutrients including pantothenic acid and B6, as well as vitamin D, vitamin E and zinc.

■ PROSTATE FACTORS™

This formula contains vitamins and amino acids important to the body plus zinc, magnesium and vitamin E, and is complemented with pygeum and saw palmetto berries, both standardized extracts.

■ TESTOSTERONE FACTORS™

This formula is rich in pantothenic acid and B6, as well as vitamin D and niacin, complemented with herbs to support normal testosterone and reproductive system function. It contains no glandular concentrates.

■ ESSENTIAL MINERALS

This formula contains a comprehensive spectrum of macro, micro and trace minerals essential to the body.

REFERENCES

¹Suitor, Carol Jean West., M.S., R.D. and Crowley, Merrily Forbes, R.N., M.S. (1984) *Nutrition: Principles and Application in Health Promotion* (2nd ed.). Philadelphia: J.B. Lippincott Co.,11,12.

²Paige, David (1988) *Clinical Nutrition*, St. Louis: C.V. Mosby Co., 584.

³Tortora, Gerald J. and Grabowski, Sandra R. (1993) *Principles of Anatomy and Physiology* (7th ed.). New York: Harper Collins College Publishers, 934.

⁴Paige, 580.

⁵*Tabers Cyclopedic Medical Dictionary* (17th ed.). (1993) Philadelphia: F.A. Davis & Co., 97.

⁶Tabers, 97.

⁷Tabers, 1969.

⁸Lehninger, Albert L., Nelson, David L. and Cox, Michael M. (1993) *Principles of Biochemistry*. (2nd ed.). New York: Worth Publishing Co., 680.

⁹Lehninger, 748.

¹⁰Davis, Judi and Sherer, Kim (1994) *Applied Nutrition and Diet Therapy for Nurses* (2nd ed.). Philadelphia: W.B. Saunders Co., 175.

¹¹Davis,174.

¹²Shils, Maurice E., Olson, James A. and Shike, Moshe. (1994) *Modern Nutrition in Health and Disease* (8th ed., vol. 1). Philadelphia: Lea & Febiger, 399.

¹³Mahan, L. Kathleen and Escot-Stump, Sylvia. (1996) *Krauses' Food, Nutrition and Diet Therapy* (9th ed.). Philadelphia: W.B. Saunders Co., 69.

❖This statement has not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure or prevent any disease.

ESSENTIAL NUTRIENTS FOR MEN'S HEALTH

Beta Carotene. Preferred source of vitamin A due to its non-toxic nature. Converted by body into vitamin A only as needed. An antioxidant, much like vitamins C and E, and selenium. As an antioxidant, negates effects of free-radicals.

Biotin (vitamin H). Necessary for fatty acid biosynthesis; healthy skin; and, metabolism of carbohydrates, fats and proteins.

Calcium. A mineral necessary for healthy bones and teeth. Also important in blood coagulation, neuromuscular excitability, cellular adhesiveness, transmission of nerve impulses, maintenance and function of cell membranes, and activation of enzyme reactions and hormone secretion.

Choline. B-complex nutrient and one of the lipotropic vitamins. Important to the metabolism and transport of fats and cholesterol. Normal nerve transmission, gall bladder function and lecithin formation also involve this nutrient. Vital for healthy hair and thymus gland.

Chromium. Involved in carbohydrate, lipid and nucleic acid metabolism. Functions in carbohydrate and lipid metabolism as a potentiator of insulin action.

Essential fatty acids. Needed for growth. Linoleic acid, the most important, must be included in the diet.

Folic acid. Essential for growth, division of cells and formation of red blood cells. Helps with reproduction. Necessary for gland and liver health.

Inositol. A lipotropic vitamin. Important for hair growth, formation of lecithin, and metabolism of fats and cholesterol.

Iodine. Essential part of thyroxine and triiodothyronine, hormones required for normal growth and development, and for maintenance of a normal metabolic rate.

Iron. Essential in permitting oxygen and electron transport and for protein metabolism, immune system resistance, growth, healthy teeth, skin, nails and bones.

Magnesium. Essential for normal metabolism of potassium and calcium. Used in tissue growth, including bone growth and turnover replacement. Plays a key role as an essential prosthetic group in at least 300 enzymatic reactions in intermediary metabolism.

Niacin. B-complex nutrient. Promotes growth and proper functioning of nervous system. In addition to role in maintaining a healthy digestive system and skin, also aids in the metabolism of fats, carbohydrates and proteins.

Pantothenic acid. Stimulates growth and contributes to energy functions. Necessary for healthy skin.

Phosphorus. Plays fundamental roles in modifying the development and maturation of bone. This mineral is also essential for the metabolism of carbohydrate, fats and protein. Because it plays a role in bone resorption, mineralization and collagen synthesis, phosphorus has an integral part in calcium homeostasis.



Selenium. Preserves tissue elasticity and works with Vitamin E. Like vitamins A, C and E, it is an antioxidant.

Vitamin A. Fat-soluble nutrient important to immune system and in formation of bones, teeth and skin. Necessary for eyes, good night vision. Helps maintain outer layer of many tissues and organs; supports growth and repair of body tissues. Promotes healthy hair and vitality.

Vitamin B1 (thiamin). Essential for nerve tissue, muscles, digestion and normal functioning of the heart. Also necessary for carbohydrate metabolism and in maintaining health of the mouth, skin, eyes and hair.

Vitamin B2 (riboflavin). Important in the metabolism of fats, carbohydrates and proteins. Aids in the formation of red blood cells and antibodies. Supports healthy eyes, hair, skin and nails.

Vitamin B6. Necessary for metabolism of fats, carbohydrates and proteins; healthy skin, nerves and muscles; and aids in antibody formation and digestion.

Vitamin B12. Helps form normal red blood cells and a healthy nervous system. Aids in effective metabolism of fats, carbohydrates and proteins.

Vitamin C. Multiple uses: increases iron absorption, is essential for both the production of collagen and for the immune system, strengthens blood vessels, and helps maintain healthy teeth, gums and bones.

Vitamin D. Role is crucial in infancy and childhood, owing to its function in the assimilation of calcium, an essential mineral in healthy bone formation for all ages. Improves muscle strength and is essential for normal mineralization of bone and cartilage, and for healthy parathyroid glands and teeth.

Vitamin E. Protects fat-soluble vitamins and red blood cells. Works with other nutrients to help prevent blood clots; maintains healthy nerves and muscles; and strengthens capillary walls. Essential for hair, skin and mucous membranes.

Zinc. Aids in the digestion of protein and metabolism of phosphorus. Necessary for burn and wound healing, prostate gland function and carbohydrate digestion. A critical function of zinc is its role in the structure and function of biomembranes.

MNP
HEALTHCARE
SOLUTIONS
SINCE 1984
Michael's® Naturopathic Programs



Naturopathy & Michael's For Life – Naturally!

Essential Minerals[®]

Supplement Facts

Serving Size: Four (4) Tablets

Amount Per Serving		% Daily Value
Calcium (as Calcium Citrate)	400 mg	31%
Iron (as Iron Amino Acid Chelate†)	2 mg	11%
Iodine (from Kelp)	120 mcg	80%
Magnesium (as Magnesium Citrate)	400 mg	95%
Zinc (as Zinc Monomethionine**)	16 mg	145%
Selenium (as L-Selenomethionine)	12 mcg	22%
Manganese (as Manganese Amino Acid Chelate)	8 mg	348%
Chromium (as Chromium Polynicotinate**)	20 mcg	57%
Potassium (as Potassium Amino Acid Chelate)	80 mg	2%
Betaine Hydrochloride	100 mg	*
ConcenTrace®*** Alfalfa (Ionic Trace Mineral Complex from the Great Salt Lake, 72 naturally occurring minerals, plus other minerals found in seawater)	24 mg	*

*Daily Value not established.

OTHER INGREDIENTS: Stearic Acid, Dicalcium Phosphate, Microcrystalline Cellulose, Modified Cellulose Gum, Vegetable Magnesium Stearate, Silicon Dioxide and Pharmaceutical Glaze (Shellac, Povidone).

†Contains soy.

**ChromeMate® and OptiZinc® are Trademarks of InterHealth Nutraceuticals, Inc.

***ConcenTrace® is a Trademark of Trace Minerals Research.

WARNING: Accidental overdose of iron-containing products is a leading cause of fatal poisoning in children under six. KEEP THIS PRODUCT OUT OF REACH OF CHILDREN. In case of accidental overdose, call a physician or Poison Control Center immediately.

For Men Daily Multi Vitamin

Supplement Facts

Serving Size: Two (2) Tablets

Amount Per Serving		% Daily Value
Vitamin A (as Beta Carotene)	4500 mcg	500%
Vitamin C (as Calcium Ascorbate)	300 mg	333%
Vitamin D3 (as Cholecalciferol) (from Lanolin)	10 mcg (400 IU)	50%
Vitamin E (as d-alpha Tocopherol Succinate)	133 mg	893%
Thiamin (as Thiamin Mononitrate)	75 mg	6250%
Riboflavin	75 mg	5769%
Niacin (as Niacinamide)	150 mg	938%
Vitamin B6 (as Pyridoxine Hydrochloride)	75 mg	4412%
Folate (as [6S]-5-methyltetrahydrofolic acid equivalent to 250 mcg of [6S]-5-methyltetrahydrofolic acid, glucosamine salt**)	125 mcg DFE	31%
Vitamin B12 (as Methylcobalamin)	500 mcg	20,833%
Biotin	500 mcg	1667%
Pantothenic Acid (as d-Calcium Pantothenate)	150 mg	3000%
Choline (as Choline Bitartrate)	300 mg	3%
Calcium (as Calcium Ascorbate)	300 mg	27%
Iodine (from Kelp)	150 mcg	100%

Proprietary Blend	985 mg	*
Inositol, Saw Palmetto Berry (<i>Serenoa serrulata</i>), Flax Seed Extract (55% alpha-Linolenic Acid), Asian Ginseng Root (<i>Panax ginseng</i>), Damiana Leaf (<i>Turnera diffusa</i> var. <i>aphrodisiaca</i>), Dandelion Root (<i>Taraxacum officinale</i>), Licorice Root (<i>Glycyrrhiza glabra</i>), PABA (Para-aminobenzoic Acid), Pumpkin Seed (<i>Cucurbita pepo</i>), Parsley Leaf (<i>Petroselinum sativum</i>), Betaine Hydrochloride, Hesperidin and Rutin		

*Daily Value not established.

OTHER INGREDIENTS: Microcrystalline Cellulose, Stearic Acid, Dicalcium Phosphate, Modified Cellulose Gum, Vegetable Magnesium Stearate, Silicon Dioxide and Clear Coating (Hydroxypropyl Methylcellulose).

**Quatrefolic® is a registered trademark of Gnosis S.p.A. Patent No. 7,947,662.

Prostate Factors™

Supplement Facts

Serving Size: Four (4) Tablets

Amount Per Serving		% Daily Value
Vitamin C (as Calcium Ascorbate)	133 mg	148%
Vitamin E (as d-alpha Tocopherol Succinate)	89 mg	593%
Niacin (as Niacinamide)	13 mg	81%
Pantothenic Acid (as Calcium Pantothenate)	27 mg	540%
Calcium (as Calcium Amino Acid Chelate, Calcium Ascorbate)	29 mg	2%
Magnesium (as Magnesium Amino Acid Chelate)	100 mg	24%
Zinc (as Zinc Monomethionine**)	27 mg	245%

Proprietary Blend	1.83 g (1833 mg)	*
Organic Bee Pollen, L-Alanine, L-Glutamine, Glycine, Organic Parsley Leaf (<i>Petroselinum crispum</i>), Organic <i>Echinacea angustifolia</i> (Root), Gravel Root (<i>Eupatorium purpureum</i>), Saw Palmetto Berry Extract (<i>Serenoa serrulata</i>) (5% Fatty Acids) and Pygeum (Bark) (<i>Pygeum africanum</i>) (1% Phytosterols)		

*Daily Value not established.

OTHER INGREDIENTS: Dicalcium Phosphate, Stearic Acid, Modified Cellulose Gum, Vegetable Magnesium Stearate, Microcrystalline Cellulose, Silicon Dioxide and Pharmaceutical Glaze (Shellac, Povidone).

**OptiZinc® is a trademark of InterHealth Nutraceuticals, Inc.

Men's Health Facts

Michael's® Product Formulas

Teen Boys Tabs Daily Multi Vitamin also available in capsules

Supplement Facts

Serving Size: Two (2) Tablets

Amount Per Serving		% Daily Value
Vitamin A (as Beta Carotene)	3000 mcg	333%
Vitamin C (as Calcium Ascorbate)	200 mg	222%
Vitamin D3 (as Cholecalciferol) (from Lanolin)	10 mcg (400 IU)	50%
Vitamin E (as d-alpha Tocopherol Succinate)	67 mg	447%
Thiamin (as Thiamin Mononitrate)	40 mg	3333%
Riboflavin	40 mg	3077%
Niacin (as Niacinamide)	80 mg	500%
Vitamin B6 (as Pyridoxine Hydrochloride)	40 mg	2353%
Folate (as [6S]-5-methyltetrahydrofolic acid equivalent to 250 mcg of [6S]-5-methyltetrahydrofolic acid, glucosamine salt**)	125 mcg DFE	31%
Vitamin B12 (as Methylcobalamin)	500 mcg	20,833%
Biotin	40 mcg	133%
Pantothenic Acid (as d-Calcium Pantothenate)	80 mg	1600%
Choline (as Choline Bitartrate)	80 mg	15%
Calcium (as Calcium Ascorbate)	24 mg	2%
Zinc (as Zinc Monomethionine***)	15 mg	136%

Proprietary Blend	375 mg	*
Organic Parsley Leaf (<i>Petroselinum sativum</i>), Inositol, Flax Seed Extract (55% alpha-Linolenic Acid), PABA (Para-aminobenzoic Acid), Asian Ginseng Root (<i>Panax ginseng</i>), Organic Pumpkin Seed (<i>Cucurbita pepo</i>), Saw Palmetto Berry (<i>Serenoa serrulata</i>), Rutin and Hesperidin		

*Daily Value not established.

OTHER INGREDIENTS: Dicalcium Phosphate, Microcrystalline Cellulose, Stearic Acid, Modified Cellulose Gum, Vegetable Magnesium Stearate, Silicon Dioxide and Pharmaceutical Glaze (Shellac, Povidone).

**Quatrefolic® is a registered trademark of Gnosis S.p.A. Patent No. 7,947,662.

***OptiZinc® is a Trademark of InterHealth Nutraceuticals, Inc.

Testosterone Factors™

Supplement Facts

Serving Size: One (1) Tablet

Amount Per Serving		% Daily Value
Vitamin C (as Calcium Ascorbate)	100 mg	111%
Vitamin D3 (as Cholecalciferol) (from Lanolin)	2.5 mcg (100 IU)	13%
Niacin (as Niacinamide)	50 mg	313%
Vitamin B6 (as Pyridoxine Hydrochloride)	25 mg	1471%
Pantothenic Acid (as d-Calcium Pantothenate)	100 mg	2000%
Calcium (as Calcium Ascorbate)	12 mg	1%

Proprietary Blend	510 mg	*
Gamma Oryzanol (from Rice), Phytosterol Blend (from Pine Tree) (70% Beta Sitosterol, 15% Campesterol, 2% Stigmasterol), Wild Yam Root (<i>Dioscorea villosa</i>), Asian Ginseng Root (<i>Panax ginseng</i>), L-Arginine and L-Alanine		

*Daily Value not established.

OTHER INGREDIENTS: Microcrystalline Cellulose, Dicalcium Phosphate, Stearic Acid, Modified Cellulose Gum, Vegetable Magnesium Stearate, Silicon Dioxide and Pharmaceutical Glaze (Shellac, Povidone).

CAUTION: Not to be taken by pregnant or lactating women. Keep out of reach of children.

"Let's get social"



/michaelshealth

©2018 MICHAEL'S®
NATUROPATHIC PROGRAMS
A SUBSIDIARY OF INNER HEALTH GROUP HOLDINGS, LLC.
6003 RANDOLPH BLVD
SAN ANTONIO, TEXAS 78233

Consumer Information Services
Voice Mail: 800-845-2730
michaelshealth.com
070818

✦ This statement has not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure or prevent any disease.



Michael's® For Men, Pre-Teen Boys, Teen Boys Tabs and Teen Boys Caps use Gnosis S.p.A.'s (6S)-5-methyltetrahydrofolic acid, glucosamine salt (Quatrefolic®) and is protected by U.S. Patent No. 7,947,662. Quatrefolic® is a registered trademark of Gnosis S.p.A.

