

In fact all the ingredients contained in ProstaHealth<sup>™</sup>, even if they all have different effects and working mechanisms very different, they have been combined in synergy with each other, complementing each other to guarantee an optimal prostate functions.



#### **INGREDIENTS QUERCETIN DESCRIPTION** Ouercetin is

Quercetin is one of the most common flavonol because it is present in numerous vegetable species like the horse-chestnut, the the pot marigold, the thorn tree, the chamomile, the St. John's wort and the gingko biloba, as well as in different foodstuffs like red grapes and red wine, red onion, green tea, blueberries, apples.

It is considered a natural suppressant of many intracellular enzymes. Moreover, Quercetin is a natural antioxidant. Among its most important functions there are:

- to restore the tocopherol (Vitamin E) after it has turned into free radical (tocopheryl-radical).
- to detoxify the superoxide cell and stop the production of nitric oxide during inflammations.

#### **SERENOA FRUIT**

It is a plant form the south-east of United States, in particular along costs of the Atlantic Ocean and even in the hinterland.

Native Americans use the fruit as food, but even for a big variety of problems connected to the urinary system and to the reproductive apparatus. European Colonists learn easily to use it. For at least 200 years the dry extract was used to heal different diseases like urogenital problems.

Actually, many researches have been executed on the fruit extracts and it has been shown that Serenoa Repens is very rich in fatty acids and in phytosterols. These researches are the fruit of a meta-analysis published on the Journal of American Medical Association where it has been demonstrated the effectiveness on the treatment of benign pro static hyperplasia symptoms (swelling of the prostate) with placebo and among two of the most common drugs on sale.

Additionally, there are clinical trials that show the effectiveness of Serenoa Repens in the cure of men baldness. A research has demonstratedd that the combination between Serenoa Repens and the Urtica roots has shown in elderly people an effective improvement concerning symptoms of urinary tract but without the reduction of prostate dimensions, as it was already shown in February 2006 in a research published by the New England Journal of Medicine.

Further researches prove that the Serenoa Repens effect has a double mechanism, particularly the inhibition of 5-alpha-reductase, which interfering with the dihydrotestosteron connects with androgynous receptors and relaxes the smooth muscle in the same way as antagonist medicines, and a possible action as phytoestrogens. Practically, the Serenoa provokes the inhibition of DHT connection to its receptor. Other in vitro studies have demonstrated that this plant has some properties even on the reduction of carcinogenic cells of prostate, but clinical trials concerning this discovery are missing.

#### **PYGEUM AFRICANUM** (Prunus africana)

Pygeum, also known as African plum tree, is an evergreen tree native to African forest regions. It can grow to approximately 45 m in height. The thick leaves are oblong in shape; the flowers are small and white. Pygeum fruit is a red berry, resembling a cherry when ripe. The bark (red, brown, or gray) is the part of the plant used for medicinal purposes.

Pygeum has been used to improve symptoms of benign prostatic hypertrophy and to improve sexual function. In France, Pygeum africanum extract (PAE) has become the primary course of treatment for enlarged prostate.

Pygeum also is therapeutic as an anti-inflammatory, to increase prostatic secretions and to decrease certain hormones in the glandular area, which reduces the hypertrophy (swelling). Other actions of pygeum include increase in bladder elasticity and cell modifications. PAE's "phyto-estrogenic" action markedly reduces prostatic hypertrophy. Most trial results report improvement of BPH symptoms. When compared with saw palmetto in a clinical trial, it was demonstrated that saw palmetto produced greater reduction of symptoms and was better tolerated. However, PAE may have greater effects on prostate secretion. By improving an underlying problem, PAE may improve sexual function. Pygeum clinical trials (mostly European) are encouraging.



#### ZINC

Zinc is an essential element for the life of human beings and its lack influences the body growth and the gain weight. Zinc is also part of insulin, of some proteins and of enzymes with antioxidant action like for example superoxide dismutase, or with catalytic functions like the carbonic anhydrase the alcohol dehydrogenase and the lactate dehydrogenase. Moreover, zinc takes part and it is responsible for the functioning of sight, olfaction, touch and memory and a lack of it would cause their disorder.

The following nourishments are natural sources of zinc: oysters, white and red meat, beans, peanuts, brown bread, pumpkin seeds and sunflower seeds.

The advised intake levels are: Kids 4-8 years: 3-5 mg/day Kids 9-13 years: 8 mg/day Men: 11 mg/day Women: 8 mg/day Pregnancy: 11-13 mg/day Breastfeeding: 12-14 mg/day

For men, zinc is a very important element for the production of sperm: in one ejaculation more or less 5 mg of zinc could get lost. A lack of zinc can provoke a reduction of sperm cells, and also vice versa, frequent ejaculations can provoke a lack of zinc.

Some studies give evidence that zinc combined with other metals might have antioxidant properties, that protect from skin and muscles aging. In higher quantities or taken alone like in some zinc preparations, it is believed that it could speed up the healing process from physical damage.

#### **PUMPKIN SEEDS**

Pumpkin seeds, apart from having lot of other properties, are known in popular medicine for their ability to prevent prostate diseases, therefore their regular consumption is advised to every men above 40 years of age. The active principles contained in pumpkin seeds are: cucurbitin, delta-sterols, phytosterins and vegetable globulins. Even Vitamin F and E are present and they exercise an antioxidant and protective function of the cells membrane. The preventive action on prostate diseases is attributable particularly to the cucurbitin.

The active principles contained in pumpkin seeds have a preventive action against all diseases of the urinary system, both male and female, like for example cystitis, but even bladder inflammations, bladder weakness and irritability, bladder catarrh, incontinence, night enuresis.

Seeing that pumpkin seeds are extremely calorific, a moderate use is recommended. Nevertheless fats contained in them are rich in monounsaturated and polyunsaturated essential fatty acids, in other words of high energy value.

### LYCOPENE

Lycopene is a non polar alkyl compound composed only by hydrogen and carbon and it belongs to the carotenoid group. The most important alimentary source of lycopene is represented by tomatoes (Solanum lycopersicum) from which it takes its name, and by its by-products, where it represents 60% of the total content of carotenoids. Its content depends on the level of ripening of tomato. The more tomato is ripen and the more lycopene is contained in it. Other natural sources are melons and pink grapefruits. The lycopene concentration in the human serum is linked with the extended intake of these raw materials. Moreover, the bioavailability of this compound seems to be higher in products processed thermally (for example tomatoes sauces) as regards to raw products.



Lycopene is the predominant carotinoid in the human plasma and its concentration differs among all populations, showing the tomatoes and its by-products consumption. The allotment inside the human tissues is not regular but it is connected with the presence of lipids: lycopene is abundant in the adipose tissue, inside testicles and in the seminal fluid, in adrenal glands, in the liver, in the prostate and in the breast. Seeing that Lycopene is a lipophilic substance, its absorption is connected with the presence of fats in the diet and the food cooking could increase the bioavailability.

Generally carotenoids are effective antioxidant, thanks to their effective action against free radicals and among them the lycopene seems to be the most effective. Many published studies ascribe it the ability to decrease the risk of prostate cancer for men. A recent study developed on mice at the Department of Urology at the Josephine Nefkins Institute of the Erasmus Medial Centre of Rotterdam has shown that Lycopene, combined with Vitamin E, has beneficial effects both on prostate cancer and on prostatespecific antigen (PSA).

## URTICA ROOT

Urtica (Urtica dioica L.) is a herbaceous plant which belongs to the Urticaceae family and that grows widely in uncultivated, humid and shadowy places. Since the Middle Ages it was known for its diuretic action both of the leaves and of the root. Recently, the attention has moved on to the use of roots for the treatment of benign prostatic hyperplasia. The urtica root is made of polysaccharides, lectins, sterols and its glicosids (in particular 3-beta-sitosterol, sitosterol), lignans, fatty acids and scopoletin.

Different studies confirm the effectivenessss of urtica, through the active principles above underlined, for treatment of prostate diseases and particularly through the inhibition of enzymes prostate aromatase (responsible for the conversion of testosterones into estrogen) and 5-alpha-reductase.

In this way the relation between oestrogen/androgens is restored, usually unbalanced in patients affected by hyperplasia. Lignans reduce the testosterone bond to plasmatic proteins as the globulin that ties the sexual hormones, whereas lectins are responsible for the block, of the prostate cells, of the EGF receptors, with the consequent reduction of dimensions of the prostate.

Polysaccharides contained in the urtica have a high anti inflammatory action because they inhibit the inflammation mediators (prostaglandis, leucotriens, cytokines) and the enzyme involved in the infections of the urinary tract. In conclusion, the use of urtica root is suitable for urination diseases and for inflammations of the urinary apparatus.

### CONTRIBUTION OF BETA-SITOSTEROL+ ADDED BETA-SITOSTEROL

From a chemical point of view it has a similar structure to cholesterol and it has a very low solubility both in lipid solvent and in water. Beta-Sitosterol is the most abundant phytosterol in our diet and it is even present in many plants contained in the ProstaHealth Formula. This choice is based on the fact that many studies identify the Beta-Sitosterol as the active part which has a positive input on the treatment of benign prostatic hyperplasia.

#### VITAMIN E

Vitamin E is liposoluble and is made of a group of compounds named tocopherols.

In nature there are seven different types of tocopherols: alpha, beta, delta, epsilon, eta, gamma and zeta. Between all these the alpha-tocopherol is the most powerful form of Vitamin E and it has a high biologic and nutritional value.

It is soluble in fats and oils.

It is the antioxidant vitamin par excellence and also it protects the lipids of cell membrane the LDL (lowdensity lipoproteins), main target of the free radicals. In fact, thanks to the carnosine (enzyme) it makes a clean sweep of free radicals.

It is one of the most active substances against free radicals coming from oxygen (consequently even the superoxide anion). It is really useful in the prevention of arteriosclerosis, effective against cardiovascular diseases, indispensable in the prevention of cancer, fundamental for the right functioning of muscles, necessary for an adjust functioning of the reproductive apparatus.



ProstaHealth<sup>™</sup> - Fact Sheet - Page 4 of 7 

If the alpha- tocopherolacetat is well carried it is absorbed by the skin, it has a moisturising, anti-inflammatory and lenitive functions. Applied on the skin it decreases the formation of lipoperoxides and it reduces the photoaging.

The Vitamin E is an antithrombin and it is really effective in the blood current because it inhibits the blood coagulation and in this way it prevents the formation of thrombus.

Moreover, it stimulates the urinary secretion, helping heart patients whose body tissues contain an excessive quantity of liquids (oedema).

As diuretic, the Vitamin E is effective in equilibrating the hypertension.

#### SELENIUM (SELENIUM YEAST + SODIUM SELENITE)

Selenium is an element that acts as a component of the antioxidant enzyme glutathione peroxidase, that acts together with Vitamin E in the prevention of damages caused by free radicals to cell membrane. Selenium, in the form of selenium-cysteine, is contained in active sites of the enzyme. Apart from thiss form, the mineral is present in many proteins like selenium-methionine and it is in our organism even in its inorganic forms selenit and selenat.

Thanks to its ability to protect the cell membranes from oxidation, selenium has a protective effect against cardiovascular diseases. In addition, it seems to play an antagonist role towards heavy metals, like mercury, cadmium and silver.

Low levels of Selenium are connected with a higher cancer risk, cardiovascular disorders, inflammatory diseases and other pathologies associated with the damage caused by free radicals, including premature aging and the formation of cataract.

A recommended daily dosage doesn't exist, but it is sure that at high dosage it can cause toxic effects (hair loss, nails fragility, nausea, vomit, abdominal pains, diarrhoea, mental confusion and garlic smell in the breathe).

For this reason the level of daily intake must not exceed 450 mcg, a limit which is very difficult to reach only through feeding.

It is possible to find selenium in food of marine origin and in giblets. The level of mineral in vegetables is proportional to its abundance in the ground.

Selenium in food in the form of selenium aminoacids sulfurate (selenium cysteine and selenium methionine) is highly absorbable by selenit and selenat usually contained in dietary supplements. Selenium acts in synergy with Vitamin E and for this reason these 2 nutritive principles are frequently associated inside dietary supplements with antioxidant action.

Recommended dietary allowance, RDA, for adults is 55 mcg/day.

## COPPER

Although it is present in the organism in low quantities (from 50 to 120 mg), copper is an essential element for the human being. Inside different tissues it acts mainly as cofactor of different enzymes, in turn involved in many physiological functions. Copper is contained even in some proteins, like albumin and the coagulation factor V.

When intaken through nourishments (in particular liver, shellfishes, chocolate and nuts), copper is absorbed by the small intestine and from here, thanks to the bound with albumin, it is carried to the liver. In turn hepatocytes synthesize a mixture composed by copper and by its conveyor (ceruloplasmin), and then it is secreted to be distributed to different tissues. Possible excesses are eliminated mainly through the bile and in part through the urine.

Thanks to its ability to move from the reduced form (Cu+) to the oxidized form (Cu2+), copper enters in different metabolic streets which needs a oxidoreductive intervention. Its action is really important for the mineralization of the skeleton and for the formation of red cell and connective tissue. In addition, copper takes part in the respiratory chain, in the melanin synthesis and in protection systems against the oxidative stress and the excess of biogen amines.

The recommended daily intake of copper is about 1,2 mg/day.



## VITAMIN D

Vitamin D is a liposoluble vitamin and it can be acquired both through ingestion and through sunlight exposure. Other names are calcipherol, ergosterol, colecalcipherol and ergocalcipherol. Provitamins D can be found in animal tissues and in plants. The synthetic form of Vitamin D2 is known as ergocalcipherol and it is used to vitaminize food. Vitamin D3, known with the name of colecalcipherol, is the natural form and it can be found in shark liver oil. Vitamin D3 can be produced synthetically through ultraviolet irradiation of 7-dehydrocholesterol.

Vitamin D is part of that group of natural substances that support the growth and health of bones. Its main function is to promote the bones mineralization. It helps to synthesize the enzymes present in the mucous membrane and is in charge of the active transport of the available calcium. Moreover, Vitamin D is necessary for the children growth, because without it, bones and teeth don't calcify well.

It is precious in keeping a steady nervous system, a normal cardiac action and blood coagulation, because these functions are linked with a good usage of calcium and phosphorus by the organism.

A Vitamin D excess increases the calcium uptake, that could lead to the removal of calcium from bones and to a build-up in soft tissues, with the formation of stones, as in kidneys. Excessive quantities can determine high levels of calcium and phosphorus in the blood and a remarkable excretion of calcium in the urine, and this provokes the calcification of soft tissues, of blood vessels walls and of kidney tubule: these diseases lead to hypercalcemia. The blood vessels hardening in the heart ad in lungs can bring to death. An increased cardiac activity needs more calcium, which is supplied only if in the system there is enough Vitamin D.

Symptoms of high dose are manifested through frequent urination, apetite loss, nausea, vomit, diarrhoea, muscle weakness, dizziness, tiredness and calcification of heart soft tissues, of blood vessels and of lungs and in the most serious case confusion, hypertension, renal insufficiency and coma.

A Vitamin D lack can lead to an inadequate calcium uptake from the intestinal tract and a phosphorus retention inside kidneys, bringing a defective mineralization of bone structure.

Symptoms caused by calcium deficiency are the same as symptoms caused by a lack of Vitamin D. The weak bones incapability to support the weight stress is shown in skeletal deformations. Rickets, a bone disease that affects children, is a direct effect of Vitamin D lack. Rackits signs are the weakness of the skull and of bones, with the arching of legs and spinal column, the thickening of the articulation of wrist, knee and hip, muscles scarcely developed and nervous irritability.

Vitamin D has a leading role during teething. It is necessary for a good development, growth and strengthening of teeth. According to Adelle Davis Vitamin D helps also in the prevention of decay and pyorrhoea, a dental alveolus inflammation. Vitamin D protects people in menopause from osteoporosis caused by cortisone.

Actually, some researches concerning the bound between calcitrol and osteoporosis are being developed. Both Vitamin D and calcium keep healthy and strong bones during menopause. Vitamin D prevents the hip fracture on elderly people. In a Scandinavian study, Vitamin D deficiency has been connected with depression. From an analysis published by the Archives of International Medicine which cross 18 old studies concerning a simple of 5700 subjects, researchers noticed that a daily intake of high doses of Vitamin D reduces the death rate of about 7% compared to the rate noticed in the population of developed countries. The additional dose was about 12 mcg, more than half of the dose recommended by nutritionists (5mcg).

Even an American research says that 10 mcg of Vitamin D taken every day decrease of about 7% the mortality for any cause.



# Standard of characterizing ingredients for a daily dosage of 2 gelcaps:

Contents	Daily dosage of 2 gelcaps	% NRV
Quercetin	100 mg	
Lycopene	84 mg	
Serenoa repens (Saw Palmetto)	75 mg	
Pygeum africanum Hook.f.	75 mg	
Zinc	7,5 mg	75%
Magnesium	50 mg	14%
Cucurbita pepo L var. Olefera (Pumpkin seeds)	50 mg	
Urtica dioica L (Nettle root)	25 mg	
Vitamin E	25 mg	200%
Beta-sitosterol	20 mg	
Selenium	25 mcg	45%
Copper	250 mcg	25%
Vitamin D	2,5 mcg	50%

**STORAGE** Store at or below 20° C in sealed containers in a dry place.

**DISCLAIMER:** The information presented is intended for educational purposes for health professionals and practitioners. It is obtained from published research and books. It is not intended to be prescriptive, nor replace the care of a licensed health professional in the diagnosis and treatment of illness.

No part of this publication may be reproduced or transmitted in any form or by any means including electronic, mechanical, photocopying, recording, or information storage system with out written permission from the publisher, except for the inclusion of brief quotations in a review.

### CONTACTS

EuroHealth Healthy Aging Project LTD Mespil House, Sussex Road, Dublin 4 - Ireland

Fax: +353 1231 4642

email: info@eurohealthproject.com

website: www.eurohealthproject.com

