Comprehensive Prostate Formula

INGREDIENTS
Comprehensive Prostate Formula contains potent levels of synergistic herbs, nutrients and phytochemicals that have been scientifically researched to support the health and wellness of the prostate gland.* This formula incorporates premier herbal extracts of Saw palmetto, African Pygeum bark and Stinging Nettle root, CardioAid™ plant sterols, and SelenoExcell®, a superior form of the mineral selenium, nutrients that have shown documented benefits for prostate health.

Comprehensive Prostate Formula also contains effective amounts of vitamins D3 and B6, zinc, and lycopene, which research suggests play important roles in supporting optimal prostate function and general health and well-being.*

BENEFITS
Comprehensive support for prostate health*
Supports normal urinary function and flow.*
Saw palmetto extract is one of the world's leading herbal products for prostate support. Widely-cited clinical studies conducted in the past two decades suggest that saw palmetto extract is beneficial for prostate health and urinary function.1 For example, in a large open trial, 505 men took 320mg of saw palmetto extract daily for three months. Relatively quickly, positive results were recognized using various measurements such as quality of life score, urinary flow rates, and residual urinary volume.2 The changes in prostate health that accompany middle age are related to the hormone DHT, or dihydrotestosterone, a metabolite of testosterone. DHT levels rise, and DHT binds to prostate cells, accelerating growth of prostate tissue. Saw palmetto extract acts in part through its inhibition of 5-alpha reductase, an enzyme that controls conversion of testosterone to DHT.3, 4 Experimental evidence suggests saw palmetto extract blocks the binding of DHT to prostate cells.5 The fatty acids and sterols in saw palmetto are believed to be responsible for these actions.6 These include oleic acid, lauric acid, campesterol, stigmasterol, beta-sitosterol and others. The saw palmetto in Comprehensive Prostate Formula is standardized to contain 290mg fatty acids and sterols, matching the amount of extract used in some successful clinical studies.

Like saw palmetto, African pygeum bark extract contains natural sterols and fatty acids, and purified extracts of it have been used in Europe for decades. Although the mechanisms for its effect have not been clearly established, animal experiments suggest pygeum may work by inhibiting growth factors in prostate cells.7 The pentacyclic triterpenoids and esters of long-chain fatty alcohols in pygeum, and the phytosterols, especially the β-sitosterols, are thought to be the active components.8 Pygeum extract is believed to promote healthy prostate function by decreasing hypersensitivity of the detrusor muscle, inhibiting cell proliferation, and maintaining prostate architecture.3

Nettle, also known as “stinging nettle,” grows wild in forests and fields throughout North America and Europe. Traditionally, nettle root has been used as an enhancer of healthy urinary flow and as an astringent.8 As far back as 1950, German investigators have observed favorable effects on the prostate with the use of nettle root. These initial findings have been confirmed through case studies, as well as double-blind studies, published mainly in German medical journals. In a double blind study of 134 men, a combination of nettle root extract and pygeum extract taken over a period of 56 days proved effective in promoting healthy urinary flow.9 While the specific active ingredients in nettle for prostate support have not been positively identified, nettles effect on the prostate may stem from its content of polysaccharides and isoflavones.10 Additionally, it contains lignans that prevent testosterone action that is adverse to prostate health.11

A long-term clinical study of 257 men used a combination of saw palmetto and stinging nettle together, revealing efficacy, safety, and a high acceptability level among the research subjects.12 These researchers used this combination because previous researchers had suggested that there is a synergistic interaction when saw palmetto and nettle are used together for maintenance of prostate health and urinary flow. The subjects taking

Supplement Facts

<table>
<thead>
<tr>
<th>Supplement Facts</th>
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<tbody>
<tr>
<td>Serving Size: 4 capsules</td>
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<tr>
<td>Servings per container: 30 servings</td>
</tr>
<tr>
<td><strong>Amount per serving</strong></td>
</tr>
<tr>
<td>Vitamin D3 (as cholecalciferol)</td>
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<tr>
<td>Vitamin B6 (as pyridoxine hydrochloride)</td>
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<tr>
<td>Zinc (as zinc citrate)</td>
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<tr>
<td>Selenium (as SelenoExcell®)</td>
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<tr>
<td>Copper (as copper gluconate)</td>
</tr>
<tr>
<td>Saw palmetto extract (berry) Emend-SP™</td>
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<tr>
<td>(Standardized to contain 290 mg fatty acids and sterols)</td>
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<tr>
<td>CardioAid™ plant sterols 95%</td>
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<tr>
<td>(Standardized to contain 2.5 mg phytosterols)</td>
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<tr>
<td>Nettle extract (root)</td>
</tr>
<tr>
<td>African Pygeum extract (bark) Emend-PG™</td>
</tr>
<tr>
<td>(Standardized to contain 2.5 mg phytosterols)</td>
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<tr>
<td>Lycopene</td>
</tr>
<tr>
<td>Decanox™ MTS-90 G mixed tocopherols</td>
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↑ Daily Value not established.

Other Ingredients: Modified cellulose (vegetarian capsule), microcrystalline cellulose, calcium silicate, silicon dioxide, magnesium stearate (vegetable source).

Gluten Free / Soy Free

Store in a cool dry place.

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the combination of herbs in this study reported better results (than those taking placebo) on a quality of life index and self-rating questionnaires that assessed the health of the men’s lower urinary tract. A follow-up study on 219 of these men continued to show the same positive trends, including tolerance of the plant extracts, at 96 weeks from baseline.13

The selected vitamins and minerals in Comprehensive Prostate Formula are known to be especially important for prostate health. Both vitamin E and vitamin B-6 intake were associated with maintenance of a healthy prostate in a study of 27,133 male smokers in Finland, aged 50-69.14 Since vitamin B-6 can inhibit steroid hormone interactions in the body, a deficiency of vitamin B-6 may expose men to levels of hormones that are counterproductive to prostate health. Similarly, prostaglandins are hormonelike substances that may interfere with healthy prostate maintenance; vitamin E can act as an antagonist to prostaglandins.

The relationship between vitamin D and prostate health is complex. Although both diet and sunlight increase men’s vitamin D status, low vitamin D levels are nevertheless all too common in North America.16 Recently, researchers discovered that genetic factors combined with a low vitamin D status might adversely affect prostate health in some men.17

The accumulation of zinc in the prostate has numerous beneficial effects and has been widely studied.18 In an older male population, supplemental zinc can provide for normal blood levels of this crucial mineral.19 Comprehensive Prostate Formula includes zinc citrate, a form of zinc that researchers suggest will enhance prostate health by blocking extracellular zinc signaling.20 When supplementing with zinc, copper supplementation is also advised; therefore, a small amount of copper has been added to this formula to balance the zinc.

Lycopene was first implicated as a benefactor of prostate health through epidemiologic studies. As a carotenoid, lycopene is known to be effective due to its antioxidant power; however, this free radical scavenging activity is not the only mechanism by which lycopene enacts a protective effect on the prostate. Lycopene also exerts biochemical influence through cell communication channels and the signaling of cytokines, growth factors, and hormones.23 Lycopene helps maintain tissue homeostasis (the healthy functioning of cell communities) through its ability to enhance communication across cell junctions of adjacent cells. Lycopene has been shown to increase animal levels of detoxifying enzymes, such as the above-mentioned glutathione peroxidase. Additionally, lycopene was shown to downplay androgen production in an animal model by the same mechanism of action as saw palmetto, inhibition of the 5-alpha-reductase enzyme.

Comprehensive Prostate Formula now includes more selenium as SelenoExcell®, a form of selenium experimentally proven to reduce prostate epithelial cell DNA damage in an animal model, upon daily supplementation.21 Selenium is well known for its role in increasing glutathione peroxidase activity, which in turn empowers cellular antioxidant abilities. Men with low blood concentrations of selenium have a harder time maintaining a healthy prostate.22

Comprehensive Prostate Formula now includes CardioAid™ beta-sitosterols. These plant sterols are antagonists to prostaglandin metabolism through their inhibition of cyclo-oxygenase and lipoxygenase, thus benefiting the prostate in a manner similar to the vitamin E included in our proprietary blend of ingredients.24 Beta-sitosterol has found success in multiple studies examining its effects on prostate health and healthy urine flow. A systemic review of such studies lauded the efficacy, safety, and subject acceptance of beta-sitosterol in prostate studies.25 Additionally, a subsequent follow-up study of 117 men concluded that the prostatic actions of beta-sitosterol remained effective during longterm use, without major side effects during the study.26

Comprehensive Prostate Formula approaches prostate and urinary health from both a botanical and a nutritive perspective, with sufficient quantities of ingredients that have been extensively studied in research trials around the world. Although the mechanisms of action are not fully discovered, there appears to be synergistic benefits to combining the botanical ingredients included in this formula.
Scientific References


22. Duffield-Lillico, A.J., et al., Selenium supplementation, baseline plasma selenium status and incidence of prostate cancer: an analysis of the complete treatment period of the Nutritional Pre-


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