

The **Advanced Prostate Formula** is a sophisticated blend of vitamins, minerals, herbs and amino acids scientifically designed to address the needs of men.

Ingredients

Three Softgel capsules contain:

SAW PALMETTO FRUIT (standardized <i>Serenoa repens</i> providing 95% free fatty acids)	320 MG
STINGING NETTLE ROOT (<i>Urtica dioica</i> providing 2% silica)	100 MG
AFRICAN PYGEUM BARK (<i>prunis africanum</i>) (standardized 13% phytosterols)	50 MG
VITAMIN E (d-alpha-tocopherol)	100 IU
ZINC (l-monomethionine)	50 MG
GLYCINE (pharmaceutical grade amino acid)	50 MG
ALANINE (pharmaceutical grade amino acid)	50 MG
GLUTAMIC ACID (pharmaceutical grade amino acid)	50 MG
VITAMIN B-6 (pyridoxine)	50 MG
In a natural, active base of pure borage seed oil (standardized 24% gamma linolenic acid)	

For men, one of the many unfortunate aspects of aging is the enlargement of the prostate gland. This benign prostatic hyperplasia (BPH) increases pressure on the urethra causing bladder outlet obstruction and urinary difficulties. The etiology of this common inflammatory condition is unknown but it may involve hormonal changes with aging (1). Testosterone or dihydrotestosterone (DHT), in combination with estradiol (E2) has been implicated in the uncontrolled division of prostate cells that result in BPH (2). The enzyme 5 alpha-reductase is responsible for converting testosterone to DHT. It is suggested that reducing the conversion of testosterone to DHT will reduce the occurrence of prostate disorders (3). 5 alpha-reductase inhibiting drugs such as finasteride are showing some success in patients with BPH, but there are side effects. There is now significant research showing the benefits of using phytochemicals for BPH and sexual dysfunction (4, 5).

Saw Palmetto is a species of the American dwarf palm tree. The scientific names are *Serenoa repens* and *S. serrulata*. The fruit from this tree contains fatty acids, sitosterols and beta-sitosterols (6). *Serenoa* seems to have multiple methods of action including the inhibition of 5 alpha-reductase and interference with binding of dihydrotestosterone (DHT) to androgen receptors in prostate cells (7). A recent Italian study showed similar results with *Serenoa* and BPH. The researchers found a decrease in 5 alpha-reductase and DHT and a reduction in the size of the prostate (8). *Serenoa* was well tolerated and compared favorably to finasteride for improving symptoms of BPH (7). The patients supplementing with *Serenoa* had decreased nocturnal urination and a noticeable increase in urine output (7, 8).

Stinging Nettle (*Urtica dioica*) is a perennial plant commonly found in the shady moist areas of forests. *Urtica dioica* contains active sterols: stigmast-4-en-3-one, stigmasterol and campesterol. *Urtica dioica* has been found to inhibit the enzyme activity related to BPH and subsequently suppress prostate-cell metabolism and growth (9). The combination of stinging nettle and saw palmetto showed similar results as the drug finasteride by reducing inflammation and increasing urinary flow, only without the side effects (4, 10).

African Pygeum is a large evergreen tree indigenous to the high plateaus of southern Africa. The bark has three active components: phytosterols, triterpenoids and ferulic esters. African

natives produced a tea out of the bark and used it for genito-urinary complaints. European researchers found pygeum was able to reduce symptoms of BPH. Nocturnal urinary frequency was reduced and there was a significant improvement in urinary flow and volume (11, 12). Pygeum not only reduced the size of the prostate; it also improved sexual behavior (5). A Polish study found that after 28 days, the combination of stinging nettle and African pygeum was able to increase urine output and decrease nocturnal frequency (13). All of the studies showed pygeum was effective and safe with little or no side effects (5, 11, 13).

The method of action for these three plants is assumed to be the active sterols and their derivatives. Plant sterols have long been recognized for their anti-inflammatory properties (14, 15).

Zinc concentration is found to be higher in the prostate gland than in other human tissues. Patients with BPH or prostate cancer had significantly lower levels of zinc than did normal healthy men (16). Men with normal sperm count had considerably higher concentrations of zinc than did men with low sperm count (17). Zinc deficiency has also been linked to decreased testosterone levels in young men, which may be related to problems of infertility (18).

Glycine, Alanine and Glutamic acid are three amino acids used in a preparation for a Japanese study involving men with chronic prostatitis. The researchers found, after four weeks, the amino acid preparation helped to reduce prostate swelling and alleviate symptoms of urinary discomfort (19). An early Spanish study found Glycine, Alanine and Glutamic acid was effective in reducing symptoms of BPH and helped reduce the duration of the condition (20). Glutamic acid has also shown the ability to protect sperm and improve motility and fertilizing capacity (21).

Vitamin E is a powerful antioxidant capable of protecting cells from lipid peroxidation (22). The action of lipid peroxidation is a vital factor in the process of chronic inflammation of the prostate when antioxidant defences have fallen (23). Supplementing with Vitamin E (d alpha-tocopherol) has been shown to reduce inflammation of BPH and a Finnish study showed a significant reduction in the incidence of prostate malignancies with Vitamin E (24).

Recommended usage: three softgel capsules daily or as directed by your health care practitioner.

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