



# Nutraceuticals for Prostate Health

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Literature Education Series On Dietary Supplements

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Prostatitis is a swelling of the prostate gland, usually caused by infection. The patient feels urgent needs to urinate frequently and has a burning sensation during urination. Benign prostatic hypertrophy (BPH) is an enlargement of the prostate gland, common among men after 50 years of age. Among other considerations, a metabolite of testosterone called dihydrotestosterone is thought to contribute to the enlargement of the prostate in BPH. The condition is not malignant or inflammatory, but may lead to obstruction of the urethra, interfering with the flow of urine. This can increase frequency of urination, the need to urinate during the night, pain, and urinary tract infections. Since the main function of the prostate is to produce the seminal fluid, a man with BPH can become sterile, although his libido is not necessarily affected. On the other hand, the male with prostate problems often has serious problems with his sex life, primarily because of the urine retention situation and possible low grade infection.

Conventional medical treatment may include antibiotics, drugs that inhibit the conversion of testosterone into dehydrotestosterone, sitz baths, bed rest, regular sexual release, massage of the prostate, avoiding alcohol and drinking excessive fluids, urinating as soon as the urge occurs, and surgery—in some cases. Alternative medical treatment may involve the use of herbs and key nutrients, including Saw Palmetto, Pygeum, Zinc, Alanine/Glutamic Acid/Glycine, and Selenium.

## **Saw Palmetto**

Saw Palmetto is very effective in acting directly on the enlarged prostate to reduce inflammation, pain and throb. Clinical trials have shown that saw

palmetto berries are helpful in reducing inflammation of the prostate in cases of benign prostate hypertrophy.<sup>1</sup> Saw palmetto inhibits the action dihydrotestosterone<sup>2</sup>, the compound thought to be responsible (in part) for the enlargement of the prostate. In sub-hypertrophied cases, it may also reduce swelling to some degree, but in case of true hypertrophy it is not known whether the herb brings relief by decreasing gland size or by reducing pain and swelling. It also increases the bladder's ability to contract and expel urine.

Saw Palmetto extract is so effective in treating benign prostatic hyperplasia (BPH), that it had been compared in research to the prescription drug Proscar. During the course of a three year study involving 309 men, Saw Palmetto extract was associated with a significant increase in urinary flow rate and a 50 percent decrease in residual urine volume. Furthermore, improvement in quality of life was reported “which reflected in the over 80 percent good to very good efficacy judgements.” By comparison, Proscar showed a 30 percent decrease in symptom scores over three years, but urine flow improved only slightly, and residual urine volume was almost unchanged. Only one-third of the treated patients had “clinically relevant improvement,” and only after six months. Clearly, Saw Palmetto extract offers superior symptomatic relief in BPH.<sup>3</sup>

## **Pygeum**

Pygeum possesses anti-inflammatory properties which are particularly effective for the prostate. This herb works by inhibiting the formation of prostaglandin PGE2 and PGF2, well known mediators of the inflammatory process. Pygeum extract has been used in the treatment of benign prostate hypertrophy or prostatitis (inflamed prostate gland) at a dose of 100 or 200 mg. per day in two separated doses for periods ranging from one to several months. Significant numbers of patients were treated in open and double blind trials with excellent results and tolerability.<sup>4 5</sup>

## **Zinc**

Zinc concentrations are highest in the prostate than in any other gland in the body. Men with prostate

cancer actually have reduced levels of zinc.<sup>6</sup> An adequate amount of zinc is a pre-requisite for prostate health. Furthermore, zinc ions inhibit androgen metabolism in the prostate,<sup>7</sup> which may lessen the production of dihydrotestosterone.

### Alanine/Glutamic Acid/Glycine

Glycine is one of three amino acids which have been clinically demonstrated to diminish prostatic enlargement, eliminate the need to get up and urinate at night, provide relief from urgent urination, noticeably reduce frequency of urination, and relieve delayed urination. Furthermore, glycine is involved in the structure of the androgen-receptor gene that may modulate the effect of androgen on prostate tumor-cell proliferation.<sup>8</sup>

### Selenium

Selenium is an important antioxidant mineral. Furthermore, research indicates that individuals with low selenium levels had twice the risk of developing cancer. This relationship was strongest in gastrointestinal and prostatic cancers.<sup>9</sup> Of course, this research makes sense when considering other reviews that describe how selenium is an agent that can block or suppress mutations that lead to certain cancers.<sup>10</sup> Furthermore, selenium has been shown to prevent cadmium (a heavy metal implicated in the increase in prostate cancer) from stimulating the growth of human prostatic epithelium.<sup>11</sup> Considering that the proportion of whole semen selenium present in sperm increases with increasing sperm count (from 0 to 40%)<sup>12</sup>, supplementary selenium may make sense for men; especially men with a prostate condition.

### Conclusion

The use of the aforementioned herbs and nutrient may do much to help reduce symptoms of BPH. Nonetheless, self-treatment without medical support is a bad idea. First off, if you have symptoms of BHP, you should first verify with your physician that BHP is the problem rather than, say, prostate cancer. If you want to try some of these natural remedies, speak with your physician, and involve him or her in the process.

Of course one thing you can do right away if you wish is to eat pumpkin seeds—that's right, pumpkin seeds. It may interest you to know that pumpkin seeds are one of the most common plants constituents used to treat BPH.<sup>13</sup> Scientific reviews have stated that the consumption of pumpkin seeds help to reduce residual urine and the frequent urge to urinate.<sup>14</sup>

### References

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