Optimal Prostate Defense Requires a Multi-Modal Strategy

By Julius Goepp, MD

As an aging man, your odds of suffering benign prostate enlargement (BPH) and/or prostate cancer are exceedingly high.

BPH will afflict 50% of men over the course of their lives. At advanced stages, BPH can almost completely obstruct the urethral canal, leading to a host of lower urinary tract symptoms.

Prostate cancer remains the second leading cause of cancer death in men, accounting for more than 28,000 deaths and 186,000 new cases in 2008 alone.

This article reviews eight clinically supported interventions with outstanding safety records to protect prostate health.

SAW PALMETTO—FRONT LINE DEFENSE!

Used by over 2 million men in the United States, saw palmetto (Serenoa repens) remains the front line fighter in natural prostate defense, with a substantial body of clinical investigation and support. Extracts from the ripe red berries of the plant are rich in bioactive plant-based compounds, including beta-sitosterol and a host of vital free fatty acids.

The natural ingredients in saw palmetto benefit the prostate in several related ways. They inhibit enzymes that convert testosterone into dihydrotestosterone (DHT), a hormone that increases prostate growth and may promote cancer. They bind to DHT receptors on prostate cells, further reducing DHT’s potential negative impact. And they block certain transmitters that can aggravate lower urinary tract symptoms.

These multiple mechanisms account for saw palmetto’s therapeutic effects in managing BPH. In a summary of 18 clinical trials involving 2,939 men, saw palmetto alleviated lower urinary tract symptoms (LUTS) and urine flow measures more effectively than placebo. The same analysis also demonstrated that men taking saw palmetto had significantly less nighttime urination (nocturia). The analysis also indicated additional benefit by combining saw palmetto with other phytonutrient extracts, including nettle root and bark of the African plum tree Pygeum africanum.

When placed head-to-head against prescription drugs like finasteride (Proscar®) and tamsulosin (Flomax®), saw palmetto was as effective in improving urinary symptom scores and peak urinary flow rates. Of even greater interest, men given saw palmetto experienced a lower incidence of associated sexual dysfunction compared to those given pharmaceuticals!

In fact, few adverse effects have ever been confirmed with saw palmetto extract.

WHAT YOU NEED TO KNOW: PROSTATE DEFENSE
The complex of plant-based chemicals (phytosterols) in the saw palmetto berry has been shown to exert a suppressive effect on prostate cancer cells. Saw palmetto’s high beta-sitosterol content—along with other constituents within its phytosterol complex—inhibit prostate cancer cell proliferation by selectively arresting cell growth and inducing programmed cell death (apoptosis).

The carotenoids contained in saw palmetto also act in tandem with this phytosterol complex to attack cancer cell membranes and slow tumor growth. Despite these impressive findings, saw palmetto should not be considered a primary treatment for prostate cancer.

THE COMPLEMENTARY POWER OF NETTLE ROOT

In numerous studies, the root of stinging nettle (Urtica dioica) has been shown to exert favorable effects on prostate health that complement those of saw palmetto. Stinging nettle appears to modulate hormone activity in prostate tissue. It also possesses powerful anti-inflammatory and antimicrobial effects—with very low toxicity. Animal studies further indicate its ability to restrict prostate tissue growth.

Controlled clinical research has demonstrated nettle extract’s power to counter and even reverse the effects of benign prostatic hypertrophy (BPH). In a double-blind, placebo-controlled study of 558 patients with BPH, nettle extract improved LUTS by 81%, compared with just 16% of controls. It also significantly increased peak urine flow rates compared with placebo.

When combined with saw palmetto, nettle root extract displays even more impressive effects on BPH. One large study found that the combination was as effective as the drug finasteride (Proscar®) at reducing symptom scores and increasing urine flow, but produced far fewer adverse events. Other studies have demonstrated the combination’s superior performance over placebo in trials lasting up to 96 weeks—with virtually no side effects.

Nettle root extract may also fight prostate cancer, reducing cancer cell proliferation without affecting normal tissue. It blocks the enzymes that cancer cells need for rapid turnover. The lectins in nettle root extract—proteins involved in cell recognition—display a preference for cancer cells over healthy ones, enhancing nettle root’s ability to attack malignant cells and induce production of the cancer-suppressing cytokine interleukin-2 (IL-2). As with saw palmetto, nettle root extract alone is not sufficiently effective to be used as a curative treatment for prostate cancer.

ADVANCED TECHNOLOGY PRESERVES SAW PALMETTO’S BIOACTIVE COMPOUNDS

The harsh chemical processes and low-pressure techniques often used to extract the saw palmetto berry’s bioactive ingredients paradoxically destroy many of them. An advanced high-pressure CO2 extraction technology has been developed that delivers intact a far greater proportion of saw palmetto’s beneficial, high molecular-weight compounds. The result is a carotenoid-rich extract that most closely reflects the composition of mature saw palmetto berries compared to typical saw palmetto extracts. Carotenoids have demonstrated protective effects against various prostate disorders.

POTENT PREVENTION WITH FLAX AND NORWAY SPRUCE LIGNANS

Plants evolved lignans to defend against disease. As it happens, their health-promoting benefits are passed on to us when
One unique mode of action seems to be that thus potentially alleviating lower In a clinical setting, flax seed Lignans derived from the Norway spruce have The enzyme 5 as with the other chemoprotective compounds reviewed in this article, pygeum has also known as Indian frankincense, has demonstrated potential in prostate health It relaxes certain smooth muscle tissues in the urinary tract, Pygeum and beta- pygeum extracts also inhibit new blood vessel growth (angiogenesis), depriving malignant tissues of the nutrients and oxygen they need to metastasize.

**Saw palmetto extract is one of several natural compounds with clinically proven value in reducing symptoms of BPH and risk factors for prostate cancer.**

**PYGEUM AFRICANUM**

The bark of the African plum tree, *Pygeum africanum*, contains powerful compounds that support the health of prostate and bladder tissue. Pygeum extracts were proven effective against BPH in numerous open and placebo-controlled studies in the 1990’s, and pygeum is now recognized in Europe as a standard therapeutic option. Pygeum and beta-sitosterol in doses of 50-100 mg twice daily improve lower urinary tract symptoms and significantly increase urine flow rates, while decreasing residual urine volume in the bladder that can lead to urinary tract infections.

Pygeum extracts also appear to offset the sexual dysfunction that often accompanies BPH and results in overall improvement in quality of life. Adverse effects associated with pygeum are rare and mild, though some gastrointestinal upset has been reported.

Numerous studies have recently emerged demonstrating pygeum’s prostate cancer-fighting potential. Pygeum extracts block the male hormone (androgen) receptors that prostate cancer cells need to thrive. As with the other chemoprotective compounds reviewed in this article, pygeum has been shown to inhibit cancer cell growth and proliferation, while stimulating desired apoptosis (programmed death of cancer cells). And pygeum’s androgen-blocking constituents reduce cancer cells’ potential to invade healthy prostate tissue, reducing spread of dangerous tumors.

**NOVEL FLOWER POLLEN COMPOUND**

Over two decades of research have confirmed that a specific compound of flower pollens, called cernitin, possesses unique effects on prostate tissue. It relaxes certain smooth muscle tissues in the urinary tract, thus potentially alleviating lower urinary tract symptoms associated with BPH. It has been shown to significantly alleviate symptoms of bladder obstruction in men with BPH, while reducing residual urine volume and shrinking the size of the prostate itself. One major study found cernitin worked as well as six prescription drugs commonly used for BPH.

Cernitin significantly decreased inflammatory cytokines and tissue inflammation in a rat model of nonbacterial prostatitis, a
painful chronic condition that afflicts many men. This may render it an ideal candidate both for the management of BPH and for a complication of chronic prostatitis called **chronic pelvic pain syndrome**, which has proven difficult to treat with standard medication.

In **2009**, a multicenter, randomized, double-blind, placebo-controlled study showed that cernitin significantly improved measures of pain and quality of life in men with category III prostatitis/chronic pelvic pain syndrome, a prevalent condition for which no standardized treatment exists. Overall prostatitis symptom scores were also significantly reduced compared with placebo, without major side effects. Higher doses of cernitin appear to provide faster relief of symptoms.

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