

# USANA Technical Bulletin

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## Saw Palmetto Standardized Extract

### Technical Background

- Saw Palmetto (*Serenoa repens*) is a small palm from the plant family Arecaceae and native to the West Indies and the Atlantic coast of North America.
- The fruit of the saw palmetto plant has a long history of use in folk medicine as a treatment for testicular atrophy, sexual vigor, increasing sperm count, and conditions of the prostate.<sup>1</sup> During the first half of this century, saw palmetto was used mostly as a mild diuretic and as therapy for chronic cystitis. Today it is widely used as an effective treatment for enlargement of the prostate and urinary dysfunction.<sup>2,3</sup>
- Saw Palmetto extract contains fatty acids, fatty alcohols, phytosterols, and other compounds. The active ingredients have not been clearly identified; however, they likely include several oil-soluble factors.<sup>4</sup>
- Clinical studies confirm that the fat-soluble extract of saw palmetto improves the signs and symptoms of benign prostate hyperplasia (BPH),<sup>5,6</sup> which is marked by a constant urge to urinate and slight burning and even pain.
- Saw Palmetto is actually comparable to Finasteride, a prescription drug used for the treatment of BPH, but is free of accompanying side effects.<sup>5,6,7</sup>
- Saw Palmetto's ability to address BPH also makes it a good candidate for potentially reducing prostate cancer risk.<sup>8,9</sup>

### Sources and Recommended Intake

- No Recommended Dietary Allowance (RDA) has been established for saw palmetto.
- Research indicates 320 mg/day standardized to include at least 85% liposterolic extract (free fatty acid) to be a beneficial dosage.<sup>5</sup>
- Since the active ingredient is oil-soluble, water-soluble products (such as a saw palmetto tea) will have little (if any) benefit.
- Detailed toxicological studies indicate that the extract has no toxic effect.

### Abstracts

*Comhaire F, Mahmoud A. Preventing diseases of the prostate in the elderly using hormones and nutraceuticals. Aging Male. 2004 Jun;7(2):155-69.* The prostate has only one function, namely to secrete fluid containing substances that are needed for reproduction. This requires an extremely high concentration of androgens in the tissues. Benign prostatic hypertrophy (BPH) seems to be related to the long-term exposure of the prostate to the strong androgen 5alpha-dihydrotestosterone (DHT) and, possibly, to estrogens. The relation between prostate cancer and androgens is suggested to be U-shaped, with both extremes of androgen concentrations being associated with

increased risk of invasive cancer. In the treatment of patients with BPH, the lipidic liposterolic extracts of *Serenoa repens* were as effective as the pharmaceutical inhibitors of the 5 $\alpha$ -reductase enzyme or  $\alpha$ 1-adrenergic blockers in relieving urinary symptoms. In addition to moderately inhibiting the 5 $\alpha$ -reductase activity, *Serenoa* seems to exert anti-inflammatory and complementary cellular actions with beneficial effects on the prostate. Unlike the pharmaceutical 5 $\alpha$ -reductase inhibitors, finasteride and dutasteride, *Serenoa* does not suppress serum PSA, facilitating the follow-up and the early detection of prostate cancer. We suggest a strategy to prevent prostate cancer that aims at providing men with partial androgen deficiency correct testosterone substitution with a sustained release buccal bio-adhesive tablet. In addition, food supplementation with extracts of *Serenoa repens* and a combination of the antioxidants selenium, (cis)-lycopene and natural vitamin E, together with fish oil rich in long-chain polyunsaturated essential fatty acids of the omega-3 group seems warranted. Clearly, a holistic approach including careful clinical and biological monitoring of the aging man and his prostate remains mandatory.

## References

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- <sup>4</sup> Blumenthal M, et al. *The Complete German Commission E Monographs*. American Botanical Council, TX. 1998, p 201.
- <sup>5</sup> Plosker GL, Brogden RN. *Serenoa repens* (Permixon). A review of its pharmacology and therapeutic efficacy in benign prostatic hyperplasia. *Drugs Aging* 1996 Nov; 9(5): 379-95.
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- <sup>8</sup> Comhaire F, Mahmoud A. Preventing diseases of the prostate in the elderly using hormones and nutraceuticals. *Aging Male*. 2004 Jun;7(2):155-69.
- <sup>9</sup> Habib FK, Ross M, Clement KHH, Lyons V, Chapman K. *Serenoa repens* (Permixon®) inhibits the 5-reductase activity of human prostate cancer cell lines without interfering with PSA expression. 2004. *Int J Cancer*. 114(2):190-194.