

Saw Palmetto

Common Indications:

- Prostate health; used in prostate complaints found in BPH (Stages I and II)
- Urinary tract health
- Hormonal balance

General Comments:

Saw palmetto is an extract derived from the deep purple berries of the saw palmetto fan palm (*Serenoa repens*), a plant indigenous to the coastal regions of the southern United States and southern California. There is an estimated one million acres of wild saw palmetto palms in Florida, where the bulk of commercial saw palmetto is grown. Saw palmetto berries have been used in American folk medicine for several hundred years as an aphrodisiac and for treating prostate problems.

Benefits & Mechanism of action:

Saw palmetto appears to have 5-alpha-reductase inhibitory activity (types I and II isoenzymes), thereby preventing the conversion of testosterone to dihydrotestosterone. Hormonal/estrogenic effects have also been reported, as well as fibroblast proliferation inhibition, direct inhibitory effects on androgen receptors and anti-inflammatory properties.¹

Numerous human trials report that saw palmetto improves symptoms of benign prostatic hypertrophy (BPH) such as nighttime urination, urinary flow, and overall quality of life, although it may not greatly reduce the size of the prostate. The effectiveness may be similar to the medication finasteride (Proscar[®]) with fewer side effects.

- A 2009 Cochrane Database System Review looked at studies in 5222 men with BPH. The authors concluded that saw palmetto was not more effective than placebo for treatment of urinary symptoms consistent with BPH.² Another review by the same authors in 2012 reported similar results, that *Serenoa repens*, at double and triple doses, did not improve urinary flow measures or prostate size in men with lower urinary tract symptoms consistent with BPH.³
- A study conducted in 298 men using 8 different centers throughout Italy from September 2010 to November 2011 reported *Serenoa repens* demonstrated efficacy in reducing dysuria with minimal side effects.⁴

- A combination of saw palmetto and nettle (*Urtica dioica*) in 219 people reported significant benefits in LUTS (International Prostate Symptom Score).⁵
- Similar results using saw palmetto and urtica extract in combination have been reported in other human trials.^{6,7}
- A 12-month Korean study reported a combination of saw palmetto and pumpkin seed oil in 47 men with BPH was found to improve the quality of life in these patients.⁸
- A 2010 study in 144 patients with BPH reported that using saw palmetto extract (Permixon) as a pre-treatment in transurethral resection of the prostate (TURP) reduced intra- and postoperative complications, including decreasing duration of surgery, decreased duration of catheterization, improvement in hemodynamic parameters and decreased hospitalization length.⁹
- Saw palmetto in combination with curcumin (*Curcuma longa*) and the bioflavonoid quercitin improved the efficacy of in conjunction with the antiboitic prulifloxacin in treating bacterial prostatitis.¹⁰

Dose:

- 160mg, 2 times a day of a standardized extract.
 - Symptom relief for enlarged prostate, if achieved, is generally experienced within 4-8 weeks.

*Note: There are various products with different dosages and standardizations to choose from. When choosing a dietary supplement, select those from reputable manufacturers.

Cautions & Side Effects:

- Saw palmetto has been reported to be safe in recommended doses.
- Safety during pregnancy and breastfeeding has not been established.
- Isolated cases of saw palmetto inducing hepatitis and pancreatitis have been reported, so use in patients pre-disposed to liver and/or pancreas imbalances should use saw palmetto with caution.^{11,12}
- Use with caution if taking the following medications:
 - Anticoagulant medicines, including warfarin (Coumadin) and aspirin
 - 2 case reports of using saw palmetto supplements have involved an increase in bleeding.¹³

References:

- 1. Scaglione F, Lucini V, Pannacci M, et al. Comparison of the potency of 10 different brands of Serenoa repens extracts. Eur Rev Med Pharmacol Sci. 2012;16(5):569-74.
- 2. Tacklind J, MacDonald R, Rutks I, Wilt TJ. Serenoa repens for benign prostatic hyperplasia. Cochrane Database Syst Rev. 2009 Apr 15;(2):CD001423. Review.
- 3. Tacklind J, Macdonald R, Rutks I, et la. Serenoa repens for benign prostatic hyperplasia. Cochrane Database Syst Rev. 2012;12:CD001423.

- 4. Bertaccini A, Giampaoli M, Cividini R, et al. Observational database serenoa repens (DOSSER): overview, analysis and results. A multicenter SIUrO (Italian Society of Oncological Urology) project. Arch Ital Urol Androl. 2012;84(3):117-22.
- Lopatkin N, Sivkov A, Schläfke S, Funk P, Medvedev A, Engelmann U. Efficacy and safety of a combination of Sabal and Urtica extract in lower urinary tract symptoms--long-term followup of a placebo-controlled, double-blind, multicenter trial. Int Urol Nephrol. 2007;39(4):1137-46. Epub 2007 Feb 15.
- 6. Engelmann U, Walther C, Bondarenko B, Funk P, Schläfke S. Efficacy and safety of a combination of sabal and urtica extract in lower urinary tract symptoms. A randomized, double-blind study versus tamsulosin. Arzneimittelforschung. 2006;56(3):222-9.
- Hong H, Kim CS, Maeng S. Effects of pumpkin seed oil and saw palmetto oil in Korean men with symptomatic benign prostatic hyperplasia. Nutr Res Pract. 2009 Winter;3(4):323-7. Epub 2009 Dec 31.
- 8. Lopatkin NA, Sivkov AV, Medvedev AA, et al. [Combined extract of Sabal palm and nettle in the treatment of patients with lower urinary tract symptoms in double blind, placebo-controlled trial]. Urologiia. 2006 Mar-Apr;(2):12, 14-9. Russian.
- 9. Anceschi R, Bisi M, Ghidini N, et al. Serenoa repens (Permixon) reduces intra- and postoperative complications of surgical treatments of benign prostatic hyperplasia. Minerva Urol Nefrol. 2010:62(3):219- 23.
- Cai T, Mazzoli S, Bechi A, Addonisio P, Mondaini N, Pagliai RC, Bartoletti R. Serenoa repens associated with Urtica dioica (ProstaMEV) and curcumin and quercitin (FlogMEV) extracts are able to improve the efficacy of prulifloxacin in bacterial prostatitis patients: results from a prospective randomised study. Int J Antimicrob Agents. 2009 Jun;33(6):549-53. Epub 2009 Jan 31.
- 11. Lapi F, Gallo E, Giocaliere E, et al. Acute liver damage due to Serenoa repens: a case report. Br J Clin Pharmacol. 2010;69(%):558-60.
- 12. Wargo KA, Allman E, Ibrahim F. A possible case of saw palmetto-induced pancreatitis. South Med J. 2010;103(7):683-5.
- 13. Villaneuva S, Gonzalez K. Coagulopath induced by saw palmetto: A case report. Bol Asoc Med PR. 2009;101(3):48-50.
- 14. Anonymous. Effectiveness of lipidosterol extract Serenoa repens (Permixon) in patients with prostatic hyperplasia. Urologiia. 2002;(1):23-25.
- 15. Avins AL, Bent S. Saw palmetto and lower urinary tract symptoms: what is the latest evidence? Curr Urol Rep. 2006;7(4):260-5. Review.
- 16. Bayne, C. W., Ross, M., Donnelly, F., and Habib, F. K. The selectivity and specificity of the actions of the lipido-sterolic extract of Serenoa repens (Permixon) on the prostate. J Urol

2000;164(3 Pt 1):876-881.

- 17. Bent, S., Kane, C., Shinohara, K., Neuhaus, J., Hudes, E. S., Goldberg, H., and Avins, A. L. Saw palmetto for benign prostatic hyperplasia. N Engl.J Med 2-9-2006;354(6):557-566.
- 18. Bonnar-Pizzorno RM, Littman AJ, Kestin M, White E. Saw palmetto supplement use and prostate cancer risk. Nutr Cancer. 2006;55(1):21-7.
- 19. Boyle, P., Robertson, C., Lowe, F., and Roehrborn, C. Meta-analysis of clinical trials of permixon in the treatment of symptomatic benign prostatic hyperplasia. Urology 2000;55(4):533-539.
- 20. Epstein J, Partin A, Simon I, and et al. Prostate tissue effects of saw palmetto extract in men with symptomatic BPH. J Urol 1999;161(4S):362.
- 21. Fagelman E, Lowe FC. Saw Palmetto Berry as a Treatment for BPH. Rev Urol. 2001;3(3):134-8.
- Feifer, A. H., Fleshner, N. E., and Klotz, L. Analytical accuracy and reliability of commonly used nutritional supplements in prostate disease. J.Urol. 2002;168(1):150-154. Gerber, G. S., Kuznetsov, D., Johnson, B. C., and Burstein, J. D. Randomized, double-blind, placebocontrolled trial of saw palmetto in men with lower urinary tract symptoms. Urology 2001;58(6):960-964.
- Marks, L. S., Partin, A. W., Epstein, J. I., Tyler, V. E., Simon, I., Macairan, M. L., Chan, T. L., Dorey, F. J., Garris, J. B., Veltri, R. W., Santos, P. B., Stonebrook, K. A., and deKernion, J. B. Effects of a saw palmetto herbal blend in men with symptomatic benign prostatic hyperplasia. J Urol 2000;163(5):1451- 1456.
- 24. Vacherot F, Azzouz M, Gil-Diez-De-Medina S, and et al. Induction of apoptosis and inhibition of cell proliferation by the lipido-sterolic extract of Serenoa repens (LSEr, Permixon) in benign prostatic hyperplasia. Prostate 2000;45(3):259-266.
- 25. Van Coppenolle F, Le Bourhis X, Carpentier F, and et al. Pharmacological effects of the lipidosterolic extract of Serenoa repens (Permixon) on rat prostate hyperplasia induced by hyperprolactinemia: comparison with finasteride. Prostate 2000;43(1):49-58.
- 26. Willetts, K. E., Clements, M. S., Champion, S., Ehsman, S., and Eden, J. A. Serenoa repens extract for benign prostate hyperplasia: a randomized controlled trial. BJU.Int 2003;92(3):267-270.
- 27. Wilt TJ. Saw palmetto did not differ from placebo for benign prostatic hyperplasia in men. ACP J Club. 2006;145(1):12.
- 28. Wilt, T., Ishani, A., Stark, G., MacDonald, R., Mulrow, C., and Lau, J. Serenoa repens for benign prostatic hyperplasia. Cochrane.Database.Syst.Rev. 2000;(2):CD001423.