

# Palmetto Complete

- Promotes Healthy Urinary Tract Flow and Frequency\*
- Helps Maintain Hormonal Balance\*
- Provides Nutrients that Support Prostate Health\*

Palmetto Complete includes botanicals and trace minerals which work in synergy to support healthy prostate function. Saw palmetto extract, stinging nettles root extract, and pygeum bark extract each support prostate health in unique ways and work together to support healthy urinary flow and urination frequency, and to maintain a balanced cycle of inflammation in the prostate. Palmetto Complete includes a potent, standardized extract of saw palmetto, a 16:1 extract of stinging nettles root, and a standardized dried extract of the bark from Pygeum africanum, as well as chelated form of zinc, copper and selenium to support healthy prostate function.

#### **Overview**

Prostate enlargement can affect several factors of men's health including urinary flow and overall prostate health. Testosterone, its potent metabolite dihydrotestosterone (DHT), and estrogen are hormones that affect the prostate gland. Testosterone is converted into estrogen via the enzyme aromatase. Aromatase levels increase as men age resulting in a subsequent decline in testosterone levels and increased estrogen production. Testosterone is also converted to its more potent form, DHT, via the enzyme known as 5-alpha-reductase. The combination of increased estrogen levels along with elevated DHT is thought to be a key factor in enlargement of the prostate gland.<sup>1</sup> Natural aromatase inhibitors and botanicals that prevent increased DHT and estrogen levels are included in Prostatrol Forte to help support healthy urinary flow, hormone metabolism and overall prostate health.

#### Saw Palmetto\*

The fat-soluble extract of the fruit of the saw palmetto tree, (*Sabal serrulata*) native to Florida, has been extensively researched for its ability to support prostate health. The mechanism of action of saw palmetto includes inhibition of the enzyme 5- $\alpha$ -reductase and interfering with prostate estrogen receptors.<sup>2,3</sup> In a metaanalysis of 18 randomized controlled trials involving 2,939 men, saw palmetto had significant benefits, promoting normal urinary flow, nighttime urinary frequency, and peak urine flow rate.<sup>4</sup> In a

\* These statements have not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure, or prevent any disease. six-month, double-blind, randomized trial of 1,098 patients, saw palmetto supported healthy prostate scores, peak urinary flow rate, and promoted healthy sexual function.<sup>5</sup>

#### **Stinging Nettles Root Extract\***

Stinging nettles root extract (Urtica dioca) is a perennial plant that grows abundantly and has been used in traditional medicine in Europe and Asia. Multiple active compounds in nettles root, including lignans and trihydroxyoctadecenoic acids, have been shown to support prostate health.<sup>6</sup> A double-blind placebocontrolled trial demonstrated that stinging nettles root reduced sex hormone-binding globulin (SHBG) levels in men.7 SHBG, a protein produced primarily in the liver, serves as a transport carrier shuttling estrogen and testosterone to sex hormone receptors throughout the body. With aging, SHBG levels can rise, even though the production of hormones continues to decline. Elevated SHBG traps free testosterone creating hormone shifts that negatively impact prostate gland health. In addition to reducing SHBG levels, nettles root has been shown to block the SHBG receptor, preventing an increase in hormone receptor activity.<sup>8</sup> Due to its broad spectrum of effects on hormone balance and prostate health, nettles root extract helps maintain normal prostate growth and size.9,10

#### **Pygeum Bark Extract\***

*Pygeum africanum* is an evergreen tree native to Africa, and its bark has been used by natives to support urinary health. Pygeum has been shown to block androgen precursors and has also been shown to maintain normal prostate size by inhibiting growth factors responsible for prostate growth in men.<sup>11</sup> Pygeum also supports a healthy inflammatory response by inhibiting the lipoxygenase enzyme.<sup>12</sup> In a study of 85 patients given 50 mg pygeum twice daily for two months, quality of life scores improved and pygeum was shown to significantly support normal urinary frequency.<sup>13</sup> A dose comparison trial of 209 patients divided into two groups, which received either 100 mg pygeum extract once daily or 50 mg twice daily, showed both groups to have similar, positive outcomes maintaining healthy urinary flow rate.<sup>14</sup>

## Herbal Synergy\*

The synergistic relationship of saw palmetto, nettles and pygeum has been proven in the literature.<sup>15,16</sup> A randomized clinical trial found the combination of saw palmetto extract (160 mg) and stinging nettles root extract (120 mg) more effectively supported all parameters of prostate health measured, and had fewer side effects than other traditional medical approaches.<sup>15</sup> The combination of pygeum and nettles root extracts have also been shown to block aromatase activity to a greater extent than either extract alone.<sup>16</sup>

## Zinc, Selenium, and Copper\*

Ensuring adequate zinc status is important in older men where elevated estrogen levels may decrease the absorption of zinc. Zinc is also a strong inhibitor of 5-alpha-reductase, resulting in less testosterone to DHT conversion.<sup>17</sup> Copper is included in Prostatrol Forte to prevent a zinc-induced copper depletion. Selenium helps support prostate health by boosting antioxidant-promoting pathways specifically related to prostate health.

### Directions

1 capsule per day or as recommended by your health care professional.

### **Does Not Contain**

Gluten, yeast, artificial colors or flavors.

## Cautions

Do not consume this product if you are pregnant or nursing. Consult your physician for further information.

## Supplement Facts

Serving Size 1 Capsule Servings Per Container 60

1 capsule contains	Amount Per Serving	% Daily Value
Zinc (as TRAACS <sup>®</sup> Zinc Bisglycinate	8 mg e Chelate)	73%
Selenium (as Selenium Glycinate Comple	50 mcg ex)	91%
Copper (as TRAACS® Copper Bisglycin	0.5 mg nate Chelate)	56%
Saw Palmetto Berry Extract (Standardized to contain 45% I	300 mg Fatty Acids)	*
Nettles Root Extract (Standardized to contain 30 ppr	120 mg m Scopoletin)	*
Pygeum Bark Extract	50 mg	*
* Daily Value not established		

\* These statements have not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure, or prevent any disease.

#### References

- 1. Konrad L, et al. Antiproliferative effect on human prostate cancer cells by a stinging nettle root (Urtica dioica) extract. *Planta Medica*. 2000; 66(1):44-7.
- 2. Weisser H, et al. Effects of the sabal serrulata extract IDS 89 and its subfractions on 5 alpha-reductase activity in human benign prostatic hyperplasia. *Prostate*. 1996; 28(5):300-306.
- 3. Carilla E, et al. Binding od Permixon, a new treatment for prostatic benign hyperplasia, to the cytosolic androgen receptor in rat prostate. *J Steroid Biochem*. 1984; 20(1):521-3.
- 4. Wilt TJ et al. Saw palmetto extracts for treatment of benign prostatic hyperplasia: a systematic review. *JAMA*. 1998; 280(6):1604-09.
- 5. Carraro JC et al. Comparison of phytotherapy (Permixon) with finasteride in the treatment of benign prostate hyperplasia: a randomized international study of 1098 patients. *Prostate*. 1996; 29(4):231-240.
- 6. Pizzorno JE. Murray MT. *Textbook of Natural Medicine*. 4th ed. Churchill Livingstone: St. Louis, MO. 2013.
- 7. Fischer M, Wilbert D. [Test of phytomedicine for treatment of benign prostatic hyperplasia (BPH).] In: Rutishager G, ed. Benigne Prostahyperplasie III: Klinische und experimentelle *Urologie*. Vol 22. New York: W Zuckswerdt; 1992:79-84.
- 8. Hryb DJ et al. The effect of extracts of the roots of the stinging nettle (Urtica dioica) on the interaction of SHBG with its receptor on human prostatic membranes. *Planta Medica*. 1995; 61(1):31-32.
- 9. Lichius JJ et al. The inhibiting effects of components of stinging nettle roots on experimentally induced prostatic hyperplasia in mice. *Planta Medica*. 1999; 65(7):666-8.
- 10. Konrad L et al. Antiproliferative effect on human prostate cancer cells by a stinging nettle root (Urtica dioica) extract. *Planta Medica*. 2000; 66(1):44-7.
- 11. Yablonsky F et al. Antiproliferative effect of Pygeum africanum extract on rat prostatic fibroblasts. *J Urol.* 1997;157(6):2381-2387.
- 12. Paubert-BraquetMetal.EffectofPygeumafricanum extracts on A23187-stimulated production of lypoxygenase metabolites from human polymorphonuclear cells. *J Lipid Mediat Cell Signal.* 1994; 9(3):285-290.
- 13. BrezaJetal.Efficacyandacceptabilityoftadenan(Pygeum africanum extract) in the treatment of benign prostatic hyperplasia (BPH): a multicentre trial in central Europe. *Curr Med Res Opin.* 1998; 14(3):127-39.
- 14. Chatelain C, Autet W, Brackman F. Comparison of once and twice daily dosage forms of Pygeum africanum extract in patients with benign prostatic hyperplasia: a randomized, double-blind study, with long-term open label extension. *Urology*. 1999 54(3):473-8.
- Sokeland J, Albrecht J. Combination of Sabal and Urtica extract vs. finasteride in benign prostatic hyperplasia (Aiken stages I to II). Comparison of therapeutic effectiveness in a one year double-blind study. *Urology*. 1997;36(4):327-33.

- 16. Hartmann RW, Mark M, Soldati F. Inhibition of 5-a-reductase and aromatase by PHL-00801 a combination of PY102 (Pygeum africanum) and UR102 (Urtica dioica) extracts. *Phytomedicine*. 1996; 3(2):121-128.
- 17. 17. Leake A, Chisolm GD, Habib FK. The effect of zinc on the 5-alpha-reduction of testosterone by the hyperplastic human prostate gland. *J Steroid Biochem*. 1984;20:651-5.

\* These statements have not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure, or prevent any disease.