

101 Healthy Prostate

Is there a male menopause? Research suggests there might be—*Andropause*—secondary to changes in male hormones (androgens). One of these changes evolves around a small, walnut-sized gland called the prostate and affects libido, sexual performance and even the ability to urinate. **The good news is that knowledge is power—you can positively influence how and what happens by lifestyle choices and nutrition.**

The prostate gland is located at the base of the bladder which surrounds the urethra, a tube that carries urine from the bladder through the penis for elimination. The outer walls of the prostate are elastic type contractile tissue that also helps push seminal fluid out the urethra. The prostate produces about 25-30% of seminal fluid, containing prostate specific antigen, proteolytic enzymes, fibrinolysin, acid phosphatase, zinc and citric acid. This fluid helps propel and protect sperm in an acidic vaginal environment. The prostate depends on hormones, mainly testosterone, to work properly. Testosterone is produced by the testicles and small amounts by the adrenals.

An estimated 50% of men have prostate problems in their lifetime; 95% at age 80 or older. Around age 40-45, the prostate gland starts to enlarge and puts pressure inward on the urethra, restricting the flow of fluids. Symptoms are frequent trips to the bathroom, hesitancy, night time waking to void, and trouble getting or maintaining an erection. The typical man may wait until symptoms severely limit function. This is unfortunate since the condition may be due to benign (non-cancerous) prostatic hypertrophy or hyperplasia (BPH), which is treatable. *Caution: Do not try to self diagnose since enlargement may be due to prostatitis, an inflammation usually caused by infection, or cancer, both of which require immediate medical attention.*

BPH: The Cause

Age and a disruption in the balance of male to female hormones (testosterone to estrogen, prolactin and FSH) are suspected in BPH. As men age, testosterone levels decrease but amounts in the gland itself increase. The enzyme 5-alpha-reductase (5-AR) converts the excess to dihydrotestosterone (DHT). Unregulated estrogen hinders the removal of DHT. Zinc helps control 5-AR but when estrogen dominates, zinc uptake is blocked. Prolactin is also allowed to increase testosterone if less zinc is around to monitor its release from the pituitary. The enzyme aromatase may also alter estrogen pathways and play a part with DHT in stimulating cells to proliferate, enlarging the gland.

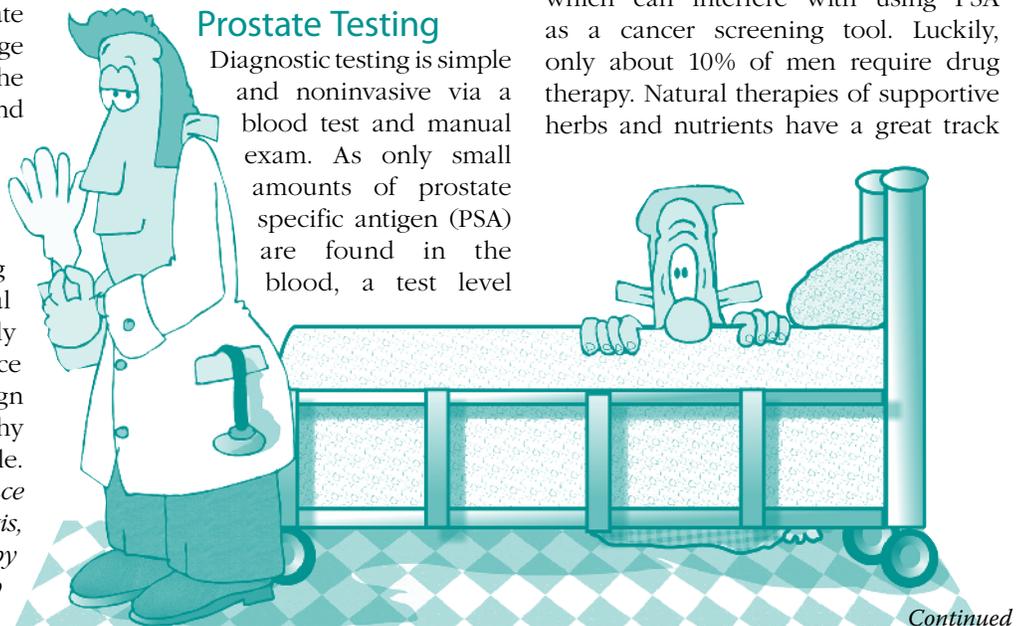
of 4 ng/ml or lower is considered normal. On manual exam, the doctor checks glandular size and how firm or soft the gland feels. PSA testing is recommended at age 45-50 unless there is a known family history of prostate cancer. A biopsy may be done if cancer is suspected. Ultrasound to check bladder emptying and urethra restriction may be needed. Surgical intervention is rarely necessary.

Treatment

Proscar® is a drug that blocks 5-AR. Lower DHT levels cause the prostate to shrink but the potential side effects—impotency, loss of libido and breast enlargement—are not exactly what a normal man wants. Of note, the drug may also lower PSA results up to 41%, which can interfere with using PSA as a cancer screening tool. Luckily, only about 10% of men require drug therapy. Natural therapies of supportive herbs and nutrients have a great track

Prostate Testing

Diagnostic testing is simple and noninvasive via a blood test and manual exam. As only small amounts of prostate specific antigen (PSA) are found in the blood, a test level



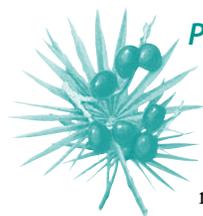
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record of reducing symptoms without affecting sexual function.

Saw Palmetto. In multiple studies involving more than 7000 men with BPH, saw palmetto (*serenoa repens*) improved BPH symptoms in 90% of men in as little as 4-6 weeks. It has a 200 year safety history and is the treatment of choice in Germany (90%) and Italy (50%). Active plant sterols are anti-inflammatory, believed to reduce enlargement by inhibiting 5-AR, and blocking DHT binding to reduce estrogen activity. Most impressive, in a comparative study by the makers of Proscar®, this herb performed better in reducing symptoms and increasing urine flow in a shorter period of time (3 months to Proscar's 9 months). And sexual function was left intact. The successful research dose is 320 mg daily at 85-95% standardization of fatty acids (sterols).



Pygeum. Many herbs work better together, as does *Pygeum africanum* and saw palmetto. In a 2000 review (18 studies, 1,562 men with BPH), pygeum improved urinary flow and other BPH symptoms. Its beta-sitosterols fight inflammation, ferulic esters reduce prolactin, and other compounds block cholesterol entry and prevent excess cell division to slow prostate growth. Pygeum has a 30-year history of safe use in Europe. Suggested doses varied from 25-100 mg daily of standardized bark extract (13%).

Zinc. The prostate contains 10 times more zinc than any other gland so no wonder that this essential trace element is an important nutrient for prostate health. As illustrated above and shown in multiple studies, zinc helps regulate hormonal balance by controlling estrogen. Its antioxidant properties also help fight bacterial infections. A suggested total daily dose is 30 mg.

B6. B6 (pyridoxine) is a water soluble vitamin and coenzyme to more than 100 enzymes, including protein synthesis and indirectly, hormone regulation. B6 enhances the absorption of zinc to aid regulation of 5-AR and prolactin. Thus, B6 supports other prostate herbs. No suggested dose is given.



Stinging Nettle. The root extract (*Urtica dioica*, 5:1 concentration), enhances pygeum's effect to improve BPH symptoms and is often combined with saw palmetto as well. By itself, it's been used safely (and successfully) in Germany for more than a decade, with 80% of men finding relief. A 2005, 18-month double-blind, crossover, placebo-controlled study of 600 men confirmed this statistic. Part of its action may involve

inhibiting the enzymes 5-AR and aromatase. It also helps reduce swelling. A suggested dose is 150-300 mg daily.

Pumpkin Seed Oil. The nutrients in pumpkin seeds support prostate health as a rich source of vitamins A, B and E, omega-3 and omega-6, zinc, selenium, carbohydrates and phytosterols. Another isolated component is delta-7 sterine, which competes with DHT for receptors in the prostate. In one clinical trial of 2000 men suffering from BPH, significant improvement in urinary function was noted. Research doses were 600-1000 mg daily.

Lycopene. A newly "discovered" carotenoid found abundantly in tomatoes, lycopene has already gained fame for prostate health as men are encouraged to eat lots of tomato sauce. Besides being taken for BPH, antioxidant lycopene may retard cell progression to cancer by reducing oxidative damage to prostate cell DNA. A suggested dose is 10-30 mg daily.



Start testing your PSA at age 40 to obtain a baseline (normal) level. That way you'll note any changes earlier enough to be "prostate proactive".

Lifestyle

Start testing your PSA at age 40 to obtain a baseline (normal) level to monitor changes and be "prostate proactive". Eat a diet high in fiber to excrete estrogen. Get enough amino acid protein and add soy three times a week to help inhibit 5-AR. Vitamin D (800-2000 IU), Flaxseeds with lignans and omega-3 oils support hormonal balance. Take a daily multiple with Zinc (15 mg), vitamin E (400-800 IU mixed) and selenium (200-400 mcg) as men with lower levels have increased risk of cancer. Stop smoking; a direct correlation exists between smoking and cancer. Lower

your cholesterol if high as free radical damage to cholesterol is toxic and a prostate carcinogen. Finally, think about taking a supportive prostate product that includes the helpful herbs and nutrients to keep your prostate healthy and functioning before you get BPH.

Medical Resources

1. American Urological Association
2. National Kidney & Urologic Diseases Information Clearinghouse
3. www.cancer.gov Fact Sheet

Specific study references available on request from medical professionals (omitted for space considerations).

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