



How healthy is your Prostate? - June 2009

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Is your Prostate Healthy?

The prostate is a small doughnut shaped male reproductive gland located just below the bladder and in front of the rectum. It wraps around the urethra, a tube that carries urine from the bladder. The prostate produces most of a male's semen.

There are three main conditions that can affect the prostate gland.

Prostatitis

This means inflammation of the prostate gland and is common in men of all ages.

Chronic

The usual causes are bacterial infection and hormonal changes in older men. The inflammation can result in urine retention, which in turn can cause bladder, urethra and kidney infection.

Symptoms

- Pain - usually between the scrotum and rectum
- Difficulty in passing water, frequent urination with a burning sensation, dribbling after urination, feelings of fullness of the bladder
- Blood or pus in the urine

- Later symptoms can include lower back pain and impotence, with difficult urination
- Treatment – medication (antibiotics), diet, supplements

Acute

- Can be the result of bacterial infection, a virus, or a sexually transmitted disease.

Symptoms

- May include fever and chills
- Low back pain
- Frequent and painful urination
- Infrequent urination or weak stream
- Treatment antibiotics, bed rest, stool softener, and increased fluid intake

Benign Prostatic Hyperplasia (BPH)

Enlarged prostate is the gradual enlargement of the prostate. It occurs in over 60% of all men over the age of fifty, and $\frac{3}{4}$ of men over seventy years of age. The usual cause is hormonal changes causing overproduction of prostate cells. Eventually the enlarged prostate obstructs the urethra, so that complete emptying of the bladder becomes difficult. It also causes pressure on the kidneys.

Symptoms - same as Prostatitis

BPH gets worse with age if left untreated, many men avoid going to the doctor for fear it might be cancer. Where there is any inflammation of the prostate a visit to your Doctor to rule out the possibility of cancer is advised.

Prostate cancer

Mainly a disease of the ageing process - Approximately 80% of all prostate cancer occurs in men over the age of 65, increasing in likelihood with age. Fortunately, although it is relatively common, in most cases prostate cancer is slow growing, particularly in older men. The symptoms are similar to that of prostatitis (inflammation) and benign enlargement of the prostate (BPH),

A professional diagnosis must be made by your doctor - via a rectal examination and a PSA test (blood test to detect elevated levels of a substance called prostate-specific antigen). These tests should be carried out on all men over the age of about 50, as early detection can often help stop the cancer spread to other site.

Your treatment for prostate cancer will depend on a number of factors, such as: your age and whether the cancer has spread, and if so, how far. There are various treatments available. Some can have serious side effects so it's important to speak with your doctor who will advise you on the best treatment for you.

Active monitoring

Sometimes, particularly for slow-growing tumours, no treatment is the best course of action. This is often called active monitoring or watchful waiting. Your condition will be monitored closely with routine check-ups. Your doctor may start treatment if your tests show that the cancer is growing or causing symptoms.

Surgery

Surgery is a common treatment for prostate cancer. It's most suitable for otherwise healthy men (usually, those under 70) whose cancer hasn't spread beyond the prostate.

The most common technique is a radical prostatectomy. This is a major operation, which removes the whole of the prostate and some surrounding healthy tissue.

New surgical developments include keyhole surgery (a laparoscopic prostatectomy) where the prostate is removed through smaller incisions and robot-assisted surgery.

Radiotherapy

Radiotherapy uses radiation to destroy cancer cells. Techniques for treating prostate cancer include conformal radiotherapy (CRT), high-resolution intensity modulated radiotherapy (IMRT) and brachytherapy.

Hormone therapy

Hormone therapy blocks the action of the male sex hormone (testosterone) that helps cancer grow. This can slow the growth and spread of prostate tumours but won't kill the cancer cells.

Medical hormone therapies include goserelin (Zoladex) and bicalutamide (Casodex).

Alternatively, surgical hormone therapy involves removing your testicles, which permanently gets rid of the main source of testosterone. This operation is called an orchidectomy.

Chemotherapy

If hormone treatment stops working (hormone refractory cancer) your doctor may recommend chemotherapy. Drugs such as docetaxel (Taxotere) are used to destroy cancer cells.

Cryotherapy

This is surgery to freeze the prostate with liquid gas and kill cancer cells. This treatment may be used if you have a recurrent or refractory prostate cancer.

Ultrasound

High intensity focused ultrasound (HIFU) is a treatment given using a machine that gives off high frequency sound waves. This heats up the targeted cancer cells and destroys them.

What causes this problem?

As men age there are many significant changes in hormone levels. Testosterone (male hormone) levels decrease after the age of fifty, while other hormones such as prolactin and estrogen are increased. This creates an increase in the amount of dihydrotestosterone (DHT) within the prostate. DHT is a very potent sex hormone derived from testosterone, and is responsible for the overproduction of prostate cells, which cause the enlargement. Various hormonal changes prevent the excess DHT from being excreted. Furthermore, the increased prolactin causes further testosterone to be taken into the prostate, and the problem escalates.

How can we help nutritionally?

A deficiency of zinc and essential fatty acids is known to be involved in those who produce too much DHT. Excess cholesterol also contributes to the problem, so it's wise to check your cholesterol levels and reduce if necessary.

Prolactin tends to increase by excessive stress or beer, drugs can be given to reduce many of the symptoms of BPH but they have severe side effects (such as impotence). I

Zinc has been shown to reduce the size of the enlarged prostate and accompanying symptoms in the majority of cases. Choose a good quality supplement, as Intestinal uptake of zinc is impaired by estrogens (found in beer!). Since estrogen levels are increased in men with BPH, zinc uptake may be low despite adequate dietary intake. Providing high quality zinc may compensate for estrogen's depression of zinc uptake.

Alcohol also reduces zinc uptake and increases zinc excretion, leading to relative zinc deficiency. In addition, alcohol reduces active vitamin B6 levels, which may further reduce zinc stores.

Because zinc competes with copper, iron, calcium and magnesium for absorption, if you are taking extra zinc, it is important you also take a good quality multi-mineral supplement, which includes these.

Herbs have proven themselves to be very useful in managing early stages of BPH. Saw Palmetto inhibits the enzyme that converts testosterone to its more active form, dihydrotestosterone (DHT), and also blocks DHT from binding in the prostate.

Dietary recommendations

- Follow a basically healthy diet and increase zinc-containing foods such as seafood (especially oysters), pumpkin seeds, eggs and brewers yeast. Lean meat also contains zinc.
- Reduce cholesterol (fried foods and most vegetable oils).
- Eat organically grown fruit and vegetables as much as possible, as pesticides can reduce zinc uptake and may even increase DHT.
- Eat oily fish such as wild salmon, mackerel, sardine at least three times a week.
- Drastically reduce alcohol, especially beer.
- Cut out sugar, refined and processed foods
- Caffeine (coffee, tea, cola).
- Drink at least 1½ litres of water per day. At first symptoms may worsen, as the bladder has to adjust, but this will improve.
- Eat a handful of pumpkin seeds a day
- Supplements – Zinc Citrate 50mgs daily, Multivitamin/mineral and Mega EPA fish oils.

Do not use Essential Fatty Acids with anticoagulant drugs such as Warfarin, Heparin or Coumarin.