



Prostate Health

Benign Prostatic Hyperplasia

The prostate gland in men produces the fluid that bathes the sperm. Fifty to sixty percent of middle aged men suffer from prostatic hyperplasia which is excessive growth both outwards and internally, thus constricting the urethra which passes through it from the bladder. The underlying cause is androgen dependent and related to excessive conversion of Testosterone (T) to Di-Hydro-Testosterone (DHT).

Prostatic hyperplasia is characterised by an enlarged, non-tender prostate giving rise to symptoms of bladder outlet obstruction. These symptoms include progressive urinary frequency, urgency, nocturia, hesitancy and intermittancy with reduced force and calibre of the urine stream, reduced ejaculatory pressure and possible blood in the urine.

Increases in DHT are associated with increased risk for coronary artery disease, prostatic hyperplasia and prostate cancer. Prolactin levels, which increase with age, increase the intake of T by the prostate. Beer, tryptophan and stress have been found to increase prolactin levels and may aggravate prostatic hyperplasia.

The enzyme, 5-alpha-reductase converts T to DHT in the prostate cell which stimulates growth, protein synthesis and prostaglandin release in the cell. The only eicosanoid produced in significant amounts in prostatic hyperplasia and prostate cancer is PGE2. Prostaglandin E2, related to arachidonic acid, tends to promote platelet aggregation and is inflammatory and may be related to high blood pressure and cancer. Supplementation with the correct **essential fatty acids** may be of some benefit. Melatonin is a powerful inhibitor of the androgen receptor and has been found to decrease the proliferation of prostatic tumors. Melatonin levels fall significantly with age.

Exposure to cadmium from tobacco smoke and air pollution can increase the activity of 5-alpha-reductase. **Zinc** helps the body remove cadmium as well as inhibiting 5-alpha-reductase. Zinc has also been shown to reduce the size of the prostate and to reduce symptoms in most patients. Intestinal uptake of zinc can be impaired by oestrogens which have been found to be elevated in men with prostatic hyperplasia. Cholesterol metabolites (epoxycholesterols) as well as pesticides (dioxin, PCB's) accumulate in hyperplastic and cancerous prostate glands, which initiate the degeneration of prostatic tissue. Decreasing cholesterol levels have been shown to improve this condition.

Helpful nutrients are **zinc, selenium, essential fatty acids (i.e. evening primrose oil, cod liver oil, mustard seed oil), glycine, melatonin, alanine, betacarotene, vitamins D3 and C and the herb saw palmetto.**

Prostate Cancer

Thirteen percent of cancer deaths in men result from metastatic prostatic cancer. Being the second most frequent cause of cancer death after lung cancer in Australian men, it is more frequent in men over 70 years of age and those with a family history of this disease. Prostatic cancer becomes lethal after metastasis.



Traditional treatment for prostatic cancer was achieved by removal of the testes and/or by blocking the synthesis and activity of DHT.

Epidemiological studies have shown that males who have diets high in **lignans and isoflavones** (i.e. genistein, a soy isoflavone) have a lower incidence of prostatic hyperplasia. These food components are converted in the gut by microflora to phyto-nutrients which inhibit 5-alpha-reductase activity. A plant based diet including berries, seeds, cereals, grains, fruits and vegetables will provide lignins and may help reduce the risk of prostate cancer.

Elevated levels of total fats and especially saturated fats has been correlated to increased incidence of prostate cancer. **Essential fatty acids (EFA's)** such as GLA and ALA have been shown to inhibit growth of cultured prostate cancer cells. Nutrients such as **selenium and antioxidants** are important for those with elevated PSA (prostate specific antigen) levels and prostate cancer risk.

Nutritional Treatment

- **Lycopene** levels have been found to be low in prostate cancer patients. Lycopenes are found in high levels in tomatoes, especially cooked tomatoes as found in tomato sauces and pastes. Lycopenes, carotenoids and selenium can protect DNA and inhibit IGF-1. Metagenics produce a high potency lycopene concentrate, **Lycopene Plus**.
- **Selenium** has antioxidant, immune stimulating ability and can enhance the effect of chemotherapy. **Palmetto Plus by Metagenics** combines saw palmetto, lycopene, selenomethionine, zinc and other helpful nutrients
- Increase intake of **fibre** as it binds testosterone and eliminates it from the body.
- *Serenoa repens* (**saw palmetto**) and *sabal serrulata* inhibit 5-alpha-reductase activity. Saw palmetto relieves the urinary urgency and frequency that often accompanies these problems by relaxing the bladder's smooth muscle. Results are apparent after six weeks of use, but maximum improvement may take six months. Check **Metagenics Palmetto Plus** formula.
- Reduce saturated fat intake and supplement with essential fatty acids. **Omega 3 fatty acids** such as found in flaxseed oil, evening primrose oil, oily fish (salmon, mackerel, sardines), walnuts and pumpkin can inhibit the growth of abnormal prostate cells. Avoid excessive alcohol, animal meats and saturated fats.
- Increase consumption of soy and plant foods to supply lignans and isoflavones.
- Check cholesterol levels and reduce naturally (**Metagenics Cholesstanol**) if necessary. Increase consumption of garlic, onions and cabbage to help detoxify cadmium from the body. Avoid tobacco and pesticide treated foods.
- Chew **pumpkin seeds** (high in zinc). Take extra **zinc** supplements along with vitamins **C,D & E**.
- Avoid shift work as this disturbs melatonin cycle rhythms.
- **Gan cao** (licorice root), a Chinese herb has anti-inflammatory effects (3g/day) and **ren shen** (panax ginseng) can help regulate hormonal balance.

The following Chinese herbs have beneficial effects on hormone levels, essential for all prostatic conditions. These herbs clear damp/heat, relieve toxicity, cool the blood and unblock the channels.

Jin yin hua Lonicera japonica
Ma chi xian Portulaca oleracea
Ban lan gen Isatis tinctora

Mu dan pi Paeonia suffruticosa
Chi shao Paeonia veitchii
Ku lian gen pi Melia azedarach

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Pu gong ying Taraxacum officinale
Gan Cao Glycyrrhiza uralensis

Rheum palmatum

These herbs can be decocted or taken in a powder form such as that produced by **Metagenics (Gynoplex)**, which can help both prostatic conditions in men as well as breast cancers in women.

Other good Chinese herbs used to clear heat, drain dampness, promote urination and relieve stranguria are:

Qu mai Dianthu

Che qian zi Plantago seed

Jin qian cao Lysimachia

Mu tong Akebia

Bian xu Polygonum vine

Gan cao shao Licorice root tips

To drain damp heat from the lower jiao (heater) use:

Huang bai Phellodendron

Da huang Rhubarb rhizome

A patent Chinese formula containing these herbs is **Ba Zheng San Wan**.

If prostate cancer is present and patient is pale, blood deficient, use **Dang Gui Shao Yao San**. If patient has thick, dark blood, purple spots on tongue, choppy pulse, **Gui Zhi Fu Ling Wan** may be helpful.