Nutritional Support for Prostate Cancer Patients

A Complementary Approach

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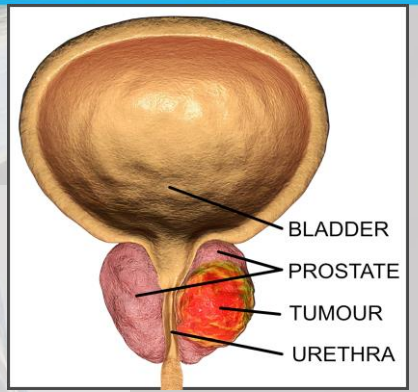
About Jo Gamble BA (HONS) DIP CNM AFMCP FELLOW ICT



Jo Gamble is the UK's first certified Functional Medicine Practitioner, graduating in 2013 from the Institute for Functional Medicine. Her journey into functional medicine was driven by personal experience when her daughter developed multiple autoimmune diseases as a toddler. Seeking answers beyond conventional medicine, she explored the power of nutrition and integrative approaches to health.

Her passion for understanding the root causes of illness led her to complete a Fellowship in Integrative Cancer Therapy. Today, she runs a thriving functional medicine clinic (the first in the UK) called Embracing Nutrition, helping clients across the UK achieve wellness by addressing the underlying causes of disease. In addition to her clinical work, she lectures internationally and mentors aspiring practitioners.

Prostate Cancer Overview



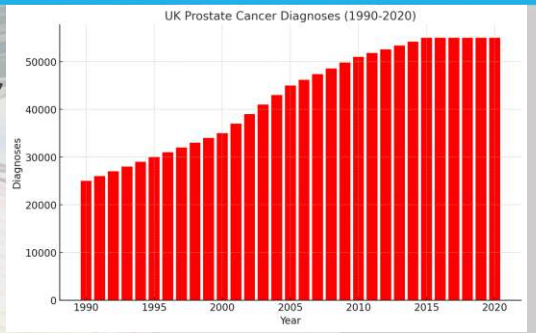
Prostate cancer occurs in the prostate gland – part of the male reproductive system located below the bladder and in front of the rectum. This gland produces fluid that nourishes and transports sperm.

In the early stages, prostate cancer often presents no symptoms. However, advanced stages may lead to difficulty urinating, blood in the urine or semen, erectile dysfunction, or pain in the hips, back, or chest.

Risk Factors include:

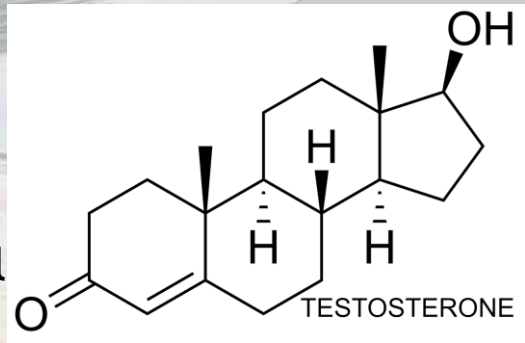
- **Age:** Most common in men over 50.
- **Family history:** Increased risk with a family history of prostate cancer.
- **Ethnicity:** Higher risk in Black men.
- **Lifestyle:** Factors such as diet may contribute to risk.

UK Stats on Prostate Cancer



- Commonality: Prostate cancer is the most common cancer among men in the UK.
- Incidence: Around 52,000 new cases are diagnosed annually.
- Age Group: Most cases are in men over 50, with the highest prevalence in those aged 75-79.
- Survival Rates: The 10-year survival rate is approximately 78%.
- Mortality: Prostate cancer is the second leading cause of cancer-related deaths in UK men, accounting for over 12,000 deaths each year.
- Ethnic Disparity: Black men in the UK are about twice as likely to develop prostate cancer compared to White men.

Prostate Cancer & Hormones



- **Hormonal Cancers:** Cancers influenced by hormones, including breast, ovarian, endometrial and prostate cancers.
- **Hormone Dependency:** Certain cancers, like prostate cancer, grow faster in the presence of specific hormones such as oestrogen or testosterone.
- **Role of Androgens:** Male hormones, primarily testosterone, play a key role in normal prostate development and function.
- **Hormone-Driven Growth:** Prostate cancer cells often rely on androgens to grow and multiply. This is because androgens binding to receptors in the prostate cells can activate genes that promote cell growth.

Potential Causes



- **Hormonal Factors:** Imbalances in testosterone and other androgens can stimulate abnormal prostate cell growth.
- **Dietary Influence:** High intake of saturated fats, red meat, and processed foods can promote inflammation and oxidative stress, potentially contributing to prostate cancer development.
- **Obesity and Metabolism:** Obesity alters hormone levels and can lead to chronic inflammation, increasing the likelihood of more aggressive cancer forms.
- **Smoking and Toxins:** Cigarette smoking and exposure to certain environmental toxins may increase the risk of more aggressive cancer or worsen outcomes.
- **Alcohol Consumption:** Excessive alcohol use has been linked to increased cancer risk, likely due to its impact on liver function and hormone regulation.

Conventional Treatments



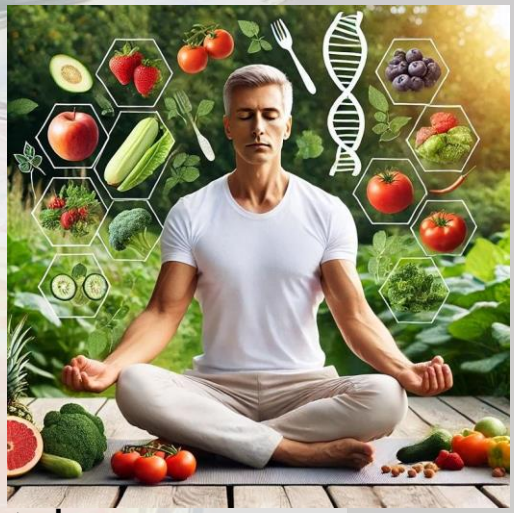
Screening & Detection:

- **PSA Testing:** Blood test for early detection, though not always definitive.
- **Biopsy:** Performed if PSA levels are high or other signs suggest cancer.
- **MRI Scans:** Increasingly used for accurate diagnosis and to reduce unnecessary biopsies.

Treatment Options:

- **Active Surveillance:** Monitoring less aggressive cases without immediate treatment.
- **Surgery:** Prostatectomy (removal of the prostate) for localized cancer.
- **Radiotherapy:** External beam or brachytherapy to target cancer cells.
- **Hormone Therapy:** Lowers testosterone levels to slow cancer growth.
- **Chemotherapy:** Used in advanced stages or if hormone therapy fails.

Complementary Approaches



Alongside conventional treatments, nutritional and lifestyle interventions can play a key role in supporting prostate cancer patients. These complementary approaches involve:

- Increase Intake of Organic Fruits and Vegetables
- Choose Healthy Fats and Moderate Protein Intake
- Reduce Dairy, Sugar, and Refined Carbohydrates
- Exercise & Healthy Weight
- Relaxation
- Take specific phytonutrients

Organic Fruits & Vegetables



- **Rich in Antioxidants:** Fruits and vegetables contain vitamins C and E, selenium, and carotenoids, which help protect cells from oxidative stress and reduce cancer progression.
- **Cruciferous Vegetables:** Broccoli, cauliflower, Brussels sprouts, and kale contain compounds like sulforaphane and indole-3-carbinol, which have anti-cancer properties.
- **Tomatoes & Lycopene:** Lycopene, found in tomatoes, may lower prostate cancer risk by reducing oxidative damage.
- **Flavonoids:** Berries, apples, and citrus fruits contain flavonoids, known for their anti-inflammatory effects that may inhibit cancer growth.
- **Pomegranate:** Pomegranate juice is rich in antioxidants and polyphenols, potentially slowing prostate cancer progression.
- **Fiber:** Found in fruits and vegetables, fiber regulates hormones and supports gut health, both important for cancer prevention.
- **Folate:** Leafy greens like spinach provide folate, which helps with DNA repair and may reduce cancer risk.

Healthy Fats & Protein Intake



- **Limit Saturated and Trans Fats:** Reduce intake of red and processed meats, full-fat dairy products, and fried foods, which are high in unhealthy fats that may promote inflammation and cancer growth.
- **Increase Omega-3 Fatty Acids:** Include sources like flaxseeds, fatty fish (salmon, mackerel, sardines), chia seeds, and walnuts. Omega-3s have anti-inflammatory effects and may help slow prostate cancer growth.
- **Use Healthy Oils:** Cook with olive oil, avocado oil, or other oils high in monounsaturated fats for cooking and dressings. These oils can support heart health and reduce inflammation.
- **Balance Omega-6 to Omega-3 Ratio:** While Omega-6 fats (found in many vegetable oils) are essential, balance them with Omega-3s to avoid promoting inflammation.
- **Limit Animal Protein intake:** A diet high in animal protein may contribute to cancer risk (see China Study). Opt for lean proteins (poultry, fish) and reduce red/processed meats, and emphasize plant-based proteins like beans, lentils, tofu, and quinoa, which are lower in saturated fats and beneficial for health.

Diary, Sugar & Refined Carbs



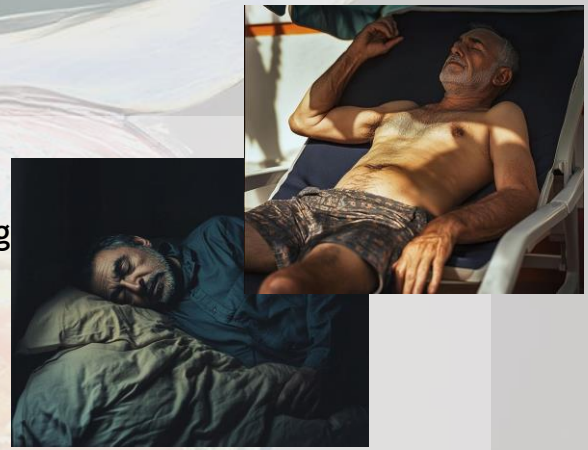
- **Cut Dairy Products:** High dairy and calcium intake have been linked to an increased risk of prostate cancer. Dairy can also contain growth hormones and traces of antibiotics. Opt for low-fat or fortified non-dairy alternatives like almond, soy, or oat milk to reduce risk while maintaining calcium.
- **Reduce Sugar:** Excess sugar consumption leads to insulin spikes, which promote inflammation and create an environment favorable for cancer growth. Chronic high insulin levels may also contribute to insulin resistance. Reducing sugary snacks, desserts, and sodas helps manage weight and lower cancer risk.
- **Choose Whole Grains:** Refined grains like white bread and rice cause rapid blood sugar spikes, raising insulin levels. Whole grains (brown rice, oats, quinoa) are rich in fiber, essential vitamins, and minerals that regulate blood sugar and help prevent cancer-promoting conditions.
- **Include Nuts:** Almonds, walnuts, brazil nuts are rich in healthy fats, fiber, and antioxidants (including selenium), offering anti-inflammatory benefits and supporting prostate health.

Healthy Weight



- **Excess Weight Increases Risk:** Obesity is linked to more aggressive prostate cancer. Excess weight leads to hormonal imbalances (higher insulin and estrogen levels) that can fuel cancer growth.
- **Insulin Resistance:** Excess weight contributes to insulin resistance, increasing blood sugar and insulin levels, which may encourage cancer cell growth.
- **Fat Tissue Impact:** Adipose tissue secretes hormones like leptin, which fuels inflammation, and reduces the body's ability to suppress tumor growth.
- **Reducing weight:** Focus on a cleaner diet and start an exercise program that includes both aerobic activity and strength training to maintain muscle. Consider time-restricted eating, partial fasting, or fasting-mimicking diets, which reduce insulin levels, promote cellular repair, and lower inflammation. These approaches can improve metabolic health, support immune function, and potentially slow cancer progression.

Stress, Sleep & Sunlight



Stress Management:

- **Lowers Cortisol:** Chronic stress raises cortisol, promoting cancer growth. Managing stress helps reduce it.
- **Boosts Well-Being:** Practices like meditation, yoga, and mindfulness enhance emotional resilience.

Adequate Sleep:

- **Boosts Immunity:** Quality sleep strengthens immunity and regulates hormones like melatonin.
- **Improves Mood:** Good sleep enhances mood and mental clarity, aiding recovery.

Sunlight & Vitamin D: Sun exposure boosts vitamin D, supporting immunity and overall health.

Reduce Toxic Exposure: Minimize contact with harmful chemicals like pesticides and heavy metals, and choose organic natural products to reduce carcinogen exposure. Reduce or cut out alcohol, and drink plenty of water so any toxins in the system can be quickly flushed out.

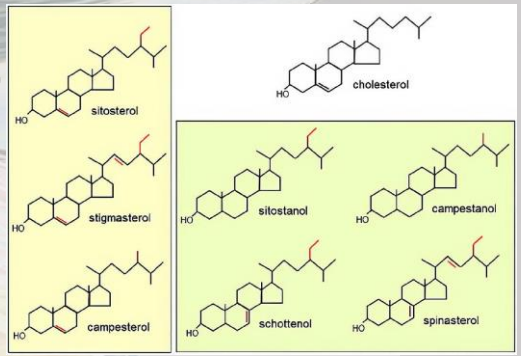
Important Phytonutrients



Taking specific food supplements alongside your treatment program and lifestyle changes plays a vital role in recovery. These tend to have one or more of the following properties:

- **Anti-inflammatory & Antioxidant:** Reduce inflammation and protect cells from oxidative stress.
- **Hormone Modulation:** Regulate hormones, including inhibiting the conversion of testosterone to DHT.
- **Immune Enhancement:** Strengthen immune response and boost white blood cells.
- **Anti-Cancer Mechanisms:** Induce cancer cell apoptosis (cell death) and inhibit cancer growth pathways like angiogenesis.
- **DNA Repair & Cell Protection:** Support DNA repair and protect against cancer-promoting cell mutations.
- **Detoxification:** Help remove heavy metals and other toxins that may contribute to cancer.

Plant Sterols & Saw Palmetto



Plant sterols are naturally occurring compounds in plants that resemble cholesterol and are:

- **Anti-inflammatory:** Helps reduce prostate inflammation
- **Control Cholesterol:** Lowers cholesterol, indirectly supporting prostate health.
- **DHT Reduction:** May inhibit conversion of testosterone to DHT, reducing prostate growth.

Saw Palmetto: This is a herbal extract from the Serenoa repens plant, commonly used for urinary symptoms.

- **Inhibits 5-Alpha-Reductase:** Lowers DHT levels, slowing prostate growth.
- **Anti-Inflammatory:** Reduces prostate inflammation.
- **Hormone Regulation:** Balances hormones influencing prostate size and function.
- **Combined use:** research suggests combining plant sterols and saw palmetto enhances prostate health benefits.

BioBran for Immune Health



Modulating immunity is an important component for nutritive support programs because the Immune system plays a central role in detecting and eliminating cancer cells, which is why cancer cells try to evade the immune system by suppressing immune responses and creating an immunosuppressive tumour environment.

Biobran MGN-3 is a non-toxic, natural food supplement able to substantially strengthen weak immune system, making it ideal for cancer protocols:

- Increases NK cell activity by up to 300%
- Increases T and B cell activity by 200% and 150% respectively.
- Completely non-toxic and non-hyporesponsive.
- Backed by 30 years of clinical research (see www.biobran.org for more info)
- Supported by 70 peer-reviewed published research papers.

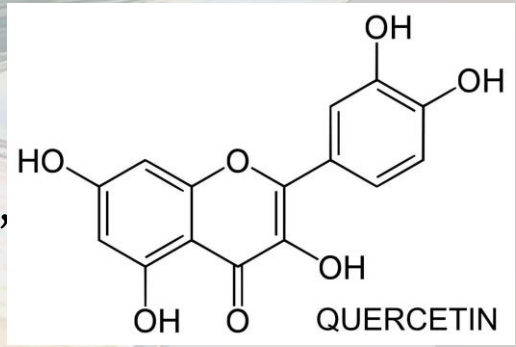
Panax Ginseng



Panax ginseng is an adaptogen, meaning it helps the body resist stress and improve overall well-being. Its active compounds, called ginsenosides, has several potential anti-cancer effects.

- **Inhibits Cancer Cell Growth:** Ginsenosides can induce apoptosis and inhibit cell cycle progression, reducing the proliferation of prostate cancer cells.
- **Anti-Angiogenic Effects:** Ginsenosides can help to prevent angiogenesis, the formation of new blood vessels that tumors need to grow and spread.
- **Anti-Inflammatory Properties:** Panax ginseng reduces inflammation, which is linked to cancer progression, potentially slowing the development of cancer cells.
- **Immune System Support:** Ginseng can boost immune function, helping the body better target and fight cancer cells.

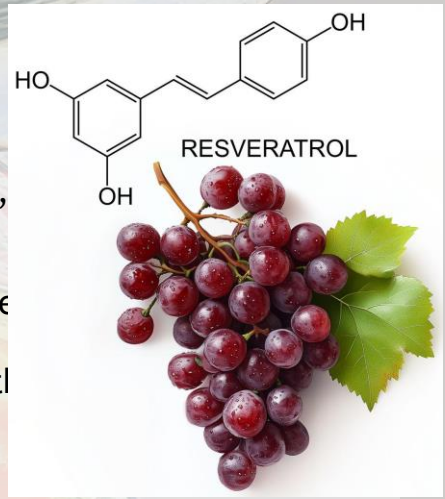
Quercetin



A natural flavonoid found in onions, apples, berries, and green tea.

- **Antioxidant Benefits:**
  - Neutralizes Free Radicals: Reduces oxidative stress and protects cells.
  - DNA Protection: Prevents DNA damage linked to cancer development.
  - Boosts Antioxidant Enzymes: Enhances enzymes like SOD and glutathione peroxidase.
- **Anti-Inflammatory Benefits:**
  - Inhibits Inflammation: Reduces cytokines (IL-6, TNF-α) and enzymes (COX-2) that drive inflammation.
  - Regulates Immune Response: Lowers chronic inflammation, a cancer risk factor.
  - Inhibits NF-κB: Blocks a pathway involved in inflammation and cancer cell survival.
- **Prostate Cancer Benefits**
  - Reduces Tumor Growth: Induces cancer cell death and slows proliferation.
  - Limits Metastasis: Inhibits enzymes (MMPs) involved in cancer spread.

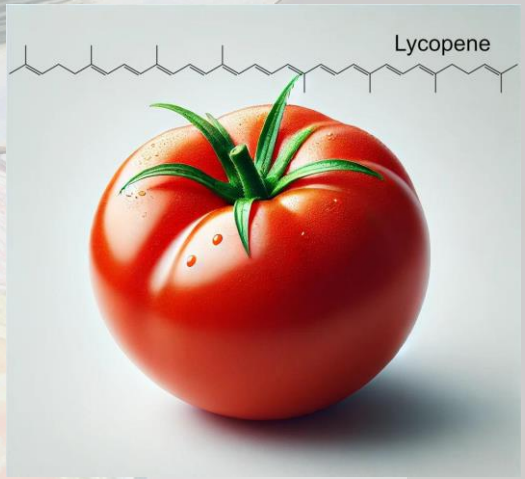
Resveratrol



A natural compound with potential anti-cancer effects, found in grapes, berries, and red wine.

- **Antioxidant Activity:** Neutralizes free radicals, reducing oxidative stress linked to cancer growth.
- **Inhibits Cell Proliferation:** Promotes apoptosis and interferes with cancer cell cycle progression.
- **Anti-Inflammatory Effects:** Reduces pro-inflammatory cytokines and pathways (e.g., NF-κB).
- **Inhibits Angiogenesis:** Prevents new blood vessel formation that supports tumor growth.
- **Suppresses Metastasis:** Limits cancer spread by modulating pathways (e.g., PI3K/Akt, MAPK).
- **Epigenetic Modulation:** Alters gene expression by modifying DNA methylation and histone acetylation.
- **Hormonal Modulation:** Inhibits androgen receptor signaling, crucial in hormone-dependent prostate cancer.
- **Targets Cancer Stem Cells:** Reduces cancer stem cells' viability, linked to recurrence and treatment resistance.

Lycopene



A powerful antioxidant found in tomatoes and other red fruits, linked to prostate cancer prevention.

- **Antioxidant Activity:** Neutralizes free radicals, protecting cells from oxidative stress and DNA damage.
- **Inhibits Cancer Cell Growth:** Promotes apoptosis and slows cancer cell proliferation.
- **Reduces Inflammation:** Lowers inflammatory markers and cytokines that contribute to cancer progression.
- **Hormonal Modulation:** May reduce IGFs and androgens, hormones linked to prostate cancer growth.
- **Inhibits Angiogenesis:** Prevents the formation of new blood vessels, limiting tumor growth and spread.
- **DNA Repair:** Enhances the body's ability to repair DNA damage, reducing cancer risk

Curcumin Complex



Curcumin, the active compound in turmeric, has powerful anti-inflammatory and anti-cancer properties:

- **Downregulation of Androgen Receptor (AR) Signaling:** Curcumin reduces the activity of androgen receptors, which are crucial for the growth of prostate cancer cells.
- **Modulation of MicroRNAs (miRNAs):** Curcumin influences miRNAs involved in prostate cancer progression, potentially reversing resistance to cancer treatment.
- **Epigenetic Modifications:** Curcumin can alter DNA methylation and histone modification, helping regulate genes linked to prostate cancer.

Absorption: The problem with curcumin is that it generally has poor absorption, which is why it is important to find liposomal or phospholipid-bound formulations with much higher absorption.

Artemisinin



Artemisinin is a natural compound extracted from the sweet wormwood plant (Artemisia annua) and is known to have potent anti-cancer properties:

Key Anti-Cancer Mechanisms:

- **Induces Apoptosis:** Promotes cancer cell death by activating mitochondrial and caspase pathways.
- **Inhibits Cell Proliferation:** Arrests the cell cycle at the G1 phase, reducing cancer cell growth.
- **Generates Reactive Oxygen Species (ROS):** Increases ROS production, causing oxidative stress, DNA damage, and cell death in cancer cells.
- **Inhibits Angiogenesis:** Reduces new blood vessel formation by downregulating VEGF, limiting tumor growth.

Prostate Specific Actions:

- **Downregulates Androgen Receptor (AR) Signaling:** Disrupts AR pathways crucial for prostate cancer cell survival.
- **Modulates Cell Signaling:** Inhibits NF-κB and mTOR pathways, reducing inflammation and cell proliferation.
- **Induces Ferroptosis:** Promotes iron-dependent cell death, effective against drug-resistant prostate cancer cells.

Zeolite & Heavy Metal Detox



Exposure to heavy metals like cadmium, lead, and mercury has been linked to an increased risk of prostate cancer. These metals accumulate in the body, leading to cellular damage, oxidative stress, and disruption of normal cellular processes. Zeolite is an aluminosilicate that can help detoxify heavy metals.

Key Anti-Cancer Mechanisms:

- **Reduction of Oxidative Stress:** Zeolite is a natural volcanic rock detoxifier that can remove heavy metals and reducing oxidative stress and inflammation, both of which contribute to prostate cancer progression.
- **Improvement of Cellular Health:** By eliminating heavy metals, zeolite helps maintain the healthy function and integrity of prostate tissue cells, potentially slowing cancer growth.
- **Enhancement of Immune Function:** Detoxifying heavy metals strengthens the immune system, allowing the body's natural defenses to better fight against cancer cells.
- **Regulation of pH Balance:** Zeolite can help maintain a balanced pH level in the body, creating an environment less favorable for cancer cell growth

Useful Supplements

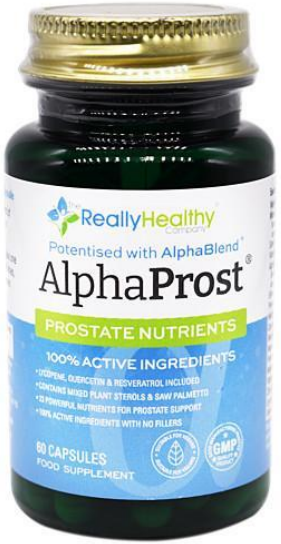
There are many **multi-nutrient and specialist food supplements** specifically formulated for prostate health. These supplements combine key ingredients discussed earlier, helping to simplify your regimen and avoid taking too many individual supplements. This approach is not only more convenient but also ensures a balanced intake of essential nutrients that support prostate health.



AlphaProst

AlphaProst is a high-quality multi-nutrient food supplement formulated to help men maintain a healthy prostate. It contains a special blend of herbs and nutrients well-documented to support normal prostate and immune function, as well as to reduce excess inflammation and oxidation.

Ingredients per veg capsule	Amount
Mixed Plant Sterols (Vitasterol S-80™ - includes beta-sitosterol, stigmasterol, campesterol and brassicasterol)	80 mg
Saw Palmetto extract (40-45% fatty acids)	75 mg
Vitamin C (magnesium ascorbate)	60 mg
AlphaBlend® (Klamath Blue Green Algae, Protease 5000 HUT/g, Amylase 50,000 SKB/g, Lipase 50,000 U/g, Bioperine™)	50 mg
Green Tea extract (95% polyphenols)	30 mg
Panax Ginseng extract (10% ginsensosides)	30 mg
Nettle Leaf extract (4:1)	30 mg
Quercetin	25 mg
Reishi mushroom ext. (30% polysaccharides)	25 mg
Resveratrol extract (98%)	25 mg
Pumpkin Seed extract (10:1)	20 mg
Meriva™ SF Curcumin extract (95%)	20 mg
Vitamin E (natural gamma-tocopherol)	15 mg
Zinc (citrate)	5 mg
Lycopene (10%) - providing free lycopene	1 mg
Selenium (seleno-methionine)	50 µg
Contains no excipients such as fillers & anti-coagulants. Vegan product.	



ProstaSol

ProstaSol is a herbal food supplement containing prostate-helping herbs. It was developed in a Swiss clinic and has gained a reputation as one of the best prostate nutritional formulations available for optimum prostate support.

Ingredients per 4 tablets daily serving	Amount
Plant sterols	643 mg
Biocurcumin BCM95™ DC (curcuminoids 516mg)	643 mg
Linum Life™ (lignans 72 mg)	360 mg
Quercetin 95%	150 mg
Pygeum africanum bark powder	150 mg
Ginseng ext. (ginsenoisides 15mg)	102 mg
Calcium	101 mg
Phosporus	79 mg
Saw palmetto ext. (Serenoa repens)	50 mg
Resveratrol	12.6 mg
Ganoderma ext.	3.9 mg
Polygonum cuspidatum root ext. (50% Resveratrol)	3.6 mg
Other ingredients: Bulking agents (microcrystalline celluose, stearic acid, calcium hydrogen phosphate), anti-caking agents (magnesium stearate, colloidal silica), disintegrant (sodium starch glycolate), coating (hydroxypropyl methylcellulose)	
Vegan product	



AlphaClear

AlphaClear combines two potent detoxifiers: zeolite clinoptilolite — a special porous rock renowned for its absorbency and ion-exchange abilities — and chlorella — a green algae that can bind to toxins. Together, this dynamic duo form a formidable team that can help our bodies eliminate damaging toxic build-up.



Each capsule provides:	Amount
Zeolite Clinoptilolite (TM-micronised | 4.5µm MED)	400 mg
Chlorella powder (cracked cell wall)	50 mg

Capsule shell: vegetable cellulose. Vegan product.

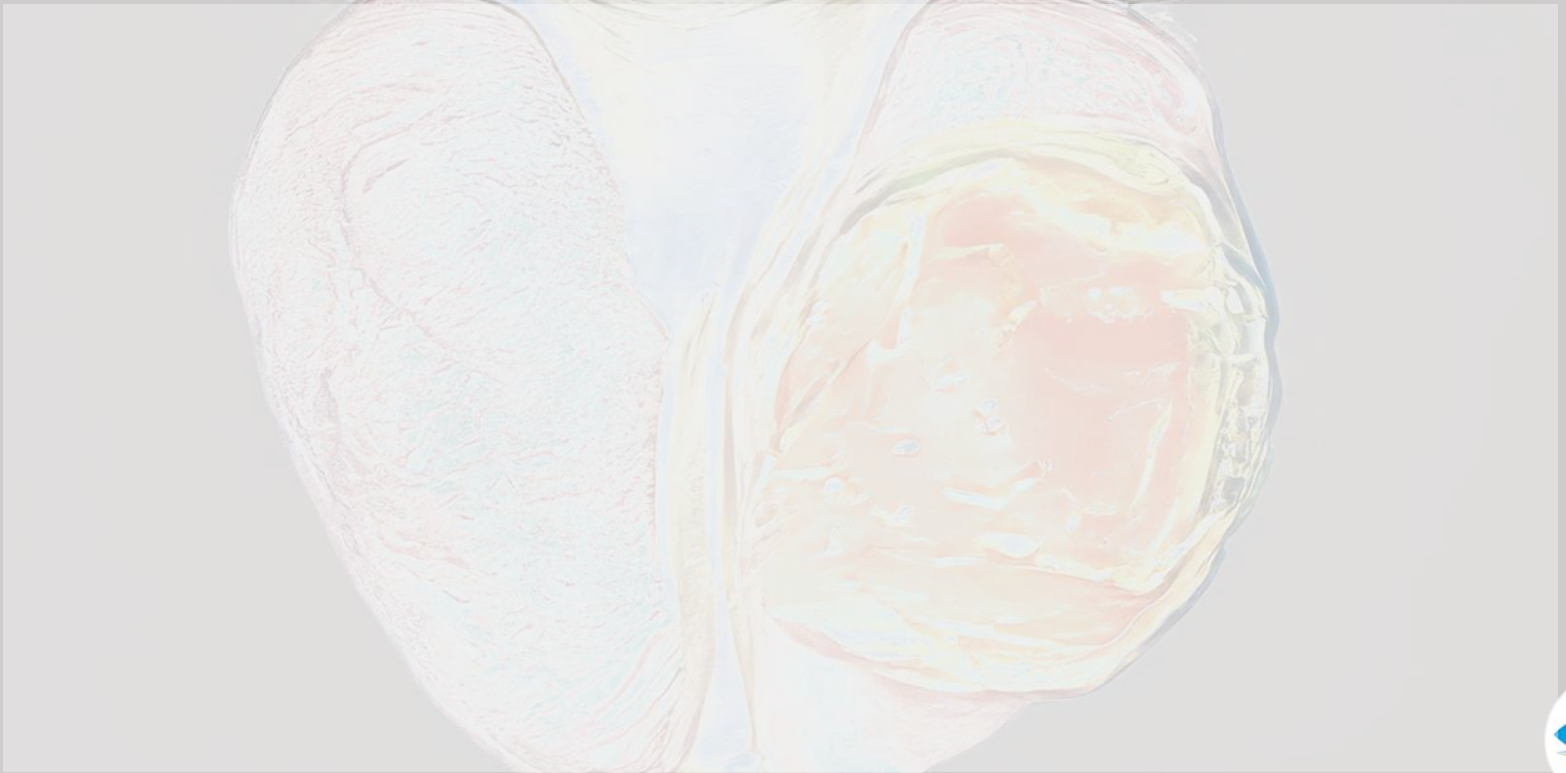
Flowease

Flowease is a premium quality rye flower pollen extract food supplement which contains specific phytonutrient combinations that can help older men and women if they need to visit the toilet more often - especially during the night. It contains over a hundred different nutritional components including: minerals, trace elements, amino acids, lipoic acids, nucleic acids, enzymes and anti-bacterial substances.



Ingredients per veg capsule	Amount
Premium Rye Flower Pollen Extract (Secale Cereale L. - Standardized Extract 20:1)	500 mg
Other Ingredients: microcrystalline cellulose, maltodextrin, calcium stearate, silicon dioxide colloidal, monocalcium phosphate, gum arabic and hypromellose (veg capsule).	
Vegan product	

Case Study



Thank you

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