

NUTRITION and CANCER

GUIDELINES FOR DIET, VITAMIN SUPPLEMENTS, & LIFESTYLE FOR BEFORE & AFTER TREATMENT

Prostate cancer is the second most common cancer in men, and the second leading cause of cancer deaths in men. Despite its high prevalence, our understanding of the causes of this disease and how to prevent it remains limited. However, there is a growing body of evidence to link diet and nutrition in the cause and prevention of prostate cancer, as well as many other cancers both in men and women.

We know that there is a link between diets high in saturated and total fat and an increased risk of prostate cancer. Likewise, there is a link between diets high in fiber, phytoestrogen ("phyto" is Greek for plant) and lycopenes (another "phyto" chemical), and other nutrients and a decreased risk of prostate cancer.

Eat a healthy, high fiber, nutrient rich diet

Maintain a healthy weight

Exercise at least 30-45 minutes several days a week, as tolerated

Incorporate relaxation techniques in your daily life

Choose health enhancing supplements

- ❖ Include 5-10 servings of a variety of nutrient rich fruits and vegetables every day, especially dark green, red and orange vegetable, beans and peas. Consume many servings of vegetables as they are high in fiber and phytonutrients, low in calories, and contain less sugar than fruit. In particular, choose tomatoes,

broccoli, cauliflower, kale, cabbage, Brussels sprouts, dark leafy greens, carrots, melons, berries, citrus, apricots, and grapes.

Cabbage family members (broccoli, cauliflower, onions, radishes, horseradish) have been shown to be very beneficial for cancer patients.

- ❖ Eat at least 3 servings of **whole** grains daily. Limit refined grains, like white starches and increase whole grains, such as whole wheat breads, crackers, and pasta, brown or wild rice, whole grain cereals, whole wheat pita bread, brown rice cakes, barley, oats, millet, quinoa, spelt. Whole grains should compromise at least 50% of daily intake.
- ❖ Eat more cold water fish for their high omega 3 polyunsaturated fat content. Choose wild salmon, haddock, halibut, cod, pink tuna, herring, sardines, and arctic char. You may also include flounder, shellfish, grouper, or snapper although they do not contain high levels of omega 3 fats. Try to avoid farm raised when possible. Avoid King mackerel, shark, and albacore tuna due to their high mercury contents.
- ❖ Avoid red meat, processed meats and pork due to their high levels of saturated fats and arachidonic acid which is believed to promote prostate cancer growth. If you must have beef, then choose grass-fed beef, and then a maximum of once a week. Pork is the worst meat you can eat due to what the pigs are fed. Choose white meat chicken and turkey, egg whites, and non-fat dairy products instead. Also include plant protein sources such as beans, lentils, soy, nuts, and nut butters.
- ❖ Avoid foods high in sugar content. They create blood sugar swings which effect energy. Also, high sugar foods are generally low in nutrients. Sugar depletes the immune system by slowing the action of your white blood cells. It is thought that sugar causes inflammation, mineral deficiency, excess anaerobic intestinal bacteria, elevated insulin levels, and creates an acidic environment in the body.
- ❖ Choose healthy, monounsaturated fats such as olive oil, avocado oil, almond oil, and hazelnut oil. Avoid canola and vegetable oil, flax oil or flax seed. Avoid transfatty acid consumption.
- ❖ Nuts, olives, and avocados are also a good source of monounsaturated fat.
- ❖ Reduce daily sodium (salt) intake to less than 2000mg.

- ❖ Try to eat high fiber foods to reach the 25-30 gm/day recommendation. Fiber helps to detoxify the body by carrying wastes through the excretory system, slowing digestion for improved nutrient absorption, and slowing the response to excess sugar.
- ❖ Avoid, or at least limit, dairy foods such as milk, cheese, yogurt, and ice cream. Instead, use nonfat dairy products (skim milk, nonfat cheese, and nonfat yogurts). Or better yet, use the coconut milk, almond milk, soy milk, and cashew milk alternatives in their place.
- ❖ Drink 8-10 eight ounce cups of water daily. Water helps to transport toxins out of the body. It is one of the most important aspects of healing. Eliminate caffeine as it is an irritant and dehydrates cells. Green tea is high in antioxidant content so try to drink 2-3 cups daily.
- ❖ Red wine in moderation (4 ounces daily) is beneficial; and so is dark chocolate (also in moderation)! Limit alcohol intake to no more than 1 (8 oz. glass) per day.
- ❖ Take immune-boosting and detoxifying supplements as approved by your physician (see "Suggested Vitamins and Supplements" following this section).

Updated 3/11 to reflect new USDA guidelines that confirm current AICR and ACS.

12 FOODS TO BOOST YOUR IMMUNE SYSTEM

"Top 12" Foods

Benefits They Provide

#1	Olive oil, Avocado	Lignans, monounsaturated fats, vitamin E
#2	Whole Grains	Phytates, fiber, vitamin E, B vitamins, folate, zinc, selenium
#3	Tomato, Red Pepper	Lycopenes, carotenes, vitamin C
#4	Broccoli, Cauliflower, Cabbage, Brussels Sprouts	Isothiocyanates, indoles, fiber, vitamin C, beta carotene, folate, potassium, sulphorophane
#5	Carrot, Cantaloupe	Polyacetylenes, beta carotenes, vitamin C
#6	Greens – Kale, Turnip, Collard, Mustard, Swiss Chard, Spinach	iron, potassium, vitamin B6, lutein, vitamin C, beta carotene, folate
#7	Raspberries, strawberries, cranberries, blackberries, broccoli, dark chocolate, red and yellow onions	Antioxidant
#8	Green Tea, Red Wine	Catechins, resveratrol in wine, antioxidants
#9	Garlic, Onion, Leeks, Scallions	Allicin, antioxidants
#10	Grape juice	Antioxidant
#11	Apples	Antioxidant

#12 Mushrooms

Research has indicated mushrooms have possible anti-cancer, antiviral, anti-inflammatory and liver protective activities. Reishi, Shiitake, Maitake are some of the most well researched cancer fighting types of mushrooms.

Incorporate these items in your **daily diet**:

- **Green Tea** – 2-3 cups per day (or capsules ok). *Boosts immune system and induces prostate cancer programmed cell death (apoptosis). Note: Green Tea extract plus Cox-2 inhibitors (for example, Celebrex and Zyflamend) synergize against prostate cancer.
- **Pomegranate** – 8 oz. juice daily; 1000-2000mg capsules daily; or “Full Spectrum” brand pomegranate extract one capsule daily. *An antioxidant that delays rise in PSA (doubling time indicating tumor growth), as well as helping promote penile blood flow to reduce erectile dysfunction.
- **Red Grapes** (whole, red grapes &/or up to 4oz – 8oz of red wine/daily) – eat daily to protect against bladder dysfunction and potentially improve urinary symptoms while reducing cancer risks. Note: Resveratrol occurs naturally in red grapes and red wine and is the primary active agent providing health benefits.

DATTOLI’S SUGGESTED VITAMINS AND SUPPLEMENTS

These are Dr. Dattoli’s specific recommendations for vitamins and supplements. All have been well researched and are important, although those in bold should be considered mandatory.

- **Resveratrol** – 250mg twice daily with meals or 500mg with evening meal. *Increases apoptosis (programmed cell death of cancer.) **Resveratrol slows hepatic clearance of coumadin potentially increasing the action of coumadin in the body. Bloodwork needs to be closely followed.**

- Lycopenes – prefer through tomato food sources (juice, sauces, pizza, etc.) but can be taken in pill form (10 - 30mg daily). *Can reduce amount of cancer cells in body.
- Vitamin C – 500mg. *Antioxidant that enhances natural immunity against cancers.
- **Vitamin D₃** – 5000-10,000 i.u. daily, in cholecalciferol form for bone integrity and cancer reduction. (Serum D-25 blood level must be checked every 6 months.)
- Vitamin E – 50-200 i.u. (preferably a combination of gamma and alpha tocopherol). *Reduces prostate cancer related deaths (upwards of 40%).
- **Fish Oil Omega 3** (with or without rosemary) – 2000mg two times daily. *Powerful anti-oxidant and inhibits inflammatory response in body thereby reducing increased prostate cancer cellular growth and decreasing potential for cancer to metastasize. (Regardless of a recently poorly designed study to the contrary.) Look for higher amounts of EPA and DHA and consider the source of the oils.
**** NOTE: Bottle must be refrigerated after opening.**
- Melatonin – 3-6mg taken nightly if having trouble sleeping. *An antioxidant that potentially increases longer survival from cancer and potentially reduces side effects of treatment related to stress, gastrointestinal and renal (kidney).
- **Zinc** – 50-100mg daily. *Protective to normal cells and increases prostate cancer cell death.
- Indole-3-Carbinol – 200-400mg daily. *An anti-cancer compound found in cruciferous vegetables that decreases the risk of developing cancer and inhibits cancer mutations.
- Quercetin – 500 mg twice daily for general prostate health. You may also use a combination product with Chrysin and Saw Palmetto called Sports One Chrysin XS. *Reduces expression of p53, thereby inhibiting growth of prostate cancer (angiogenesis). WARNING: Do not buy "Quercetin Plus" as it is formulated with additional ingredients that will cause a drop in your testosterone.
- Cernitin (Bee Pollen or Bee Propolis) - 2-4 tablets daily for general prostate health. *Anti-inflammatory properties (for many disorders and used for chronic prostatitis symptoms and also has anti-cancer properties). Also has anti-cancer properties.
- Glutamine – 2 grams taken on an empty stomach for absorption
 *Contributes to muscle strength while on hormones.
- Glucosamine – 1500mg daily or follow directions on specific brand; (NOT to be combined with chondroitin!). *Helps with joint/bone strength while on hormones. **Chondroitin can potentially cause increased recurrence rates and progression of cancer.
- Beta-Sitosterol – 100-200mg daily. This is the most active constituent of pygeum. It has anti-inflammatory effects to tissues including prostate.

- Modified Citrus Pectin – 800mg three times daily taken with meals. (It is also available in powder form. If taking it in powder form you must take 5 grams mixed with fluid three times daily with food.)
- **Zyflamend** – 1 tablet twice daily. A Cox-2 inhibitor that has anti-inflammatory effects and inhibits the growth of cancer.
- Milk Thistle – 1 gram daily. *Liver protectant, lowers cholesterol, skin cancer prevention, suppresses prostate growth. Make sure brand contains isosilybinin B.
- **Curcumin** –1000 mg to 2000 mg daily. This provides multiple health benefits.
- Rosemary - 400 mg capsule three times daily. It is a powerful antioxidant and anti-inflammatory. As an alternative to capsules, may take 1 tablespoon of powdered rosemary leaf mixed with small amount of tomato juice once daily.
- Lecithin: 1000-1500mg daily. Contains essential fatty acids that the body can't produce. Has anti-inflammatory properties; helps move fat and cholesterol through blood so it doesn't accumulate in the arteries; and (most importantly) regulates nutrients entering and exiting the cell membranes.

There are a number of prostate antioxidant formulas found in most pharmacies or health food stores, which may contain the majority of these supplements. They might be easier to take than separate doses of each item above.



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