Prevention

Prostate Cancer Awareness Month September 2021

REDUCING MORTALITY FROM PROSTATE CANCER

Note to Readers: Fear of COVID exposure sharply reduced medical visits and preventive care. We have added information about optimizing cancer prevention while minimizing COVID risk during the pandemic.

Prostate Cancer Prevention During COVID

Screening: Because the benefits of PSA screening for prostate cancer are uncertain, delayed by a decade or more and comes with a substantial risk of overdiagnosis, overtreatment with urinary, bowel and sexual side effects, **shared decision making** (SDM) about screening is recommended for standard risk men 55-69 years. SDM may occur remotely, which is currently permitted. PSA testing requires blood drawing, although the test can be added to a standard blood panel.

Primary Prevention: Exercise¹ and healthy dietary changes (see below) can be performed in social isolation, although group exercising, particularly indoors, increases risk of COVID exposure. However, adherence to dietary cancer prevention recommendations is poor, even among men facing prostatectomy.²

Diet and Supplements Reduce Prostate Cancer Risk? A heart-healthy diet likely also reduces the risk of fatal prostate cancer.³ The human microbiome may mediate, or at least signal, diet-related benefits.⁴ Flavenoids may have beneficial epigenetic effects on carcinogenesis.⁵ However, correlative studies from patients on the control arm of the Prostate Cancer Prevention Trial found that dietary carotenoids and retinoids are not associated with prostate inflammation, a hypothesized carcinogenic mechanism,⁶ and vitamin D metabolites have minimal association with aggressive prostate cancer.⁷

Prostate Screening Recommendations by the US Preventive Services Task Force: Uncertain benefit (C rating, updated April 2018) so recommend individual shared decision making (SDM) for average risk men age 55-69 years. Not recommended age 70 or older. High risk patients (prostate cancer in 1st degree family member, African American) may consider PSA screening before age 55 because prostate cancers develop earlier in high-risk men.

PSA Screening is complicated, requiring shared decision making. Prostate cancer occurs in most men but kills 2.5%. **Three major screening trials with conflicting results** found **few lives saved**, at least **10-fold overdiagnosis** of unimportant cancers, and many men with side effects of **overtreatment**. However, **men adjust** to treatment-related sexual, urinary and bowel symptoms, so their quality of life returns to baseline. If so, PSA screening looks better but requires time frames of 15 years or more, and screening prevents no more than 1 prostate cancer death for every 1000 men getting screened.

Authors: James A. Talcott MD, SM, Senior Scientist Strang Cancer Prevention Institute
Michael P. Osborne MD, MSurg, FRCS, FACS President Strang Cancer Prevention Institute

REFERENCES:

- 1. Dickerman BA, Mucci LA. Obesity, height, and advanced prostate cancer: extending current evidence toward precision prevention. Ann Oncol 2020;31:7-8.
- 2. Thederan I, Chandrasekar T, Tennstedt P, Kuehl L, Sorbe C, Tilki D, et al. Poor adherence to international cancer prevention recommendations among patients with prostate cancer: First results from the MARTINI-Lifestyle cohort. Eur Urol Focus 2020;6:935-40.
- 3. Moyad MA. Preventing lethal prostate cancer with diet, supplements, and rx: Heart healthy continues to be prostate healthy and "first do no harm" Part II. Current urology reports 2020;21:15.
- 4. Ohadian Moghadam S, Momeni SA. Human microbiome and prostate cancer development: current insights into the prevention and treatment. Front Med 2021;15:11-32.
- 5. Izzo S, Naponelli V, Bettuzzi S. Flavonoids as epigenetic modulators for prostate cancer prevention. Nutrients 2020;12.
- 6. Chadid S, Song X, Schenk JM, Gurel B, Lucia MS, Thompson IM, Jr., et al. Association of serum carotenoids and retinoids with intraprostatic inflammation in men without prostate cancer or clinical indication for biopsy in the placebo arm of the Prostate Cancer Prevention Trial. Nutrition and cancer 2021:1-8.
- 7. Torkko K, Till C, Tangen CM, Goodman PJ, Song X, Schenk JM, et al. Vitamin D pathway and other related polymorphisms and risk of prostate cancer: Results from the Prostate Cancer Prevention Trial. Cancer Prev Res (Phila) 2020;13:521-30.
- 8. Talcott JA, Rossi C, Shipley WU, Clark JA, Slater JD, Niemierko A, et al. Patient-reported long-term outcomes after conventional and high-dose combined proton and photon radiation for early prostate cancer. JAMA 2010;303:1046-53.
- 9. Shoag JE, Nyame YA, Gulati R, Etzioni R, Hu JC. Reconsidering the trade-offs of prostate cancer screening. N Engl J Med 2020;382:2465-8.

The Strang Cancer Prevention Cookbook

Reduce your Risk for Cancer by Eating a Healthy Diet!

Tomato-Basil Sauce 4 Servings

2 pounds plum tomatoes (10-12)

1 tablespoon olive oil

2 garlic cloves, crushed

1 small onion (about 1/4 pound), chopped

½ cup fresh basil leaves cut into long strips

Salt and freshly ground black pepper



Core the tomatoes and drop them into boiling water for 20 to 30 seconds. Slip off the skins and slice the tomatoes in half horizontally. Gently squeeze the halves over a bowl to squeeze out the seeds. Use your fingers to remove any remaining seeds. Discard the seeds, chop the

tomatoes and reserve.

Heat the olive oil in a medium nonstick skillet over high heat. Add the crushed garlic and cook until lightly browned, then remove and discard. Add the onion to the skillet and cool over medium heat until soft, about 5 minutes, stirring often. Add the reserved tomatoes and bring to a simmer. Cook uncovered over medium heat, stirring occasionally for 30 minutes, until the sauce thickens. Stir in basil, season with salt and pepper, and simmer for 2 to 3 minutes.

Calories 93, protein 3g, carbs 14 g, fat 4 g, cholesterol 0 mg, dietary fiber 3 g, saturated fat 1 g

MAJOR SOURCES OF POTENTIAL CANCER FIGHTERS

Phytochemicals: allium compounds, plant polyphenols (flavonoids, phenolic acids) plant sterols, phytic acids, terpenes, (carotenoids, monoterpenes)

Recipe by Laura Pensiero, R.D., Strang Nutrition Consultant Chef, Dietitian, Restaurateur, Author Owner, Gigi Hudson Valley (Trattoria & Catering) Rhinebeck, New York



Strang Cancer Prevention Institute
575 Madison Avenue 10th Floor
New York, NY 10022
Tel: (212) 501-2111 www.strang.org

Editor | Research Associate Merle K. Barash MA AEd, MA Psya

© Strang Cancer Prevention Institute

September is Prostate Cancer Awareness Month