

**Strang**

Cancer Prevention Institute

Dedicated to Promoting Cure by Early Detection and Research to Prevent Cancer since 1933

Prevention

Prostate Cancer Awareness Month September 2022

REDUCING MORTALITY FROM PROSTATE CANCER

Note to Readers: Innovation is essential to cancer prevention. Genomic data support precision prevention as well as precision medicine. Strang is increasingly focused on innovation in cancer prevention. **We will highlight novel approaches as we have the consequences of Covid.**

PROSTATE CANCER SCREENING: **Innovation in Screening:** Because benefit from PSA screening, the sole prostate cancer screening approach with significant supporting evidence, is uncertain (see below), innovation is required. **Whom and when to screen:** The net benefit of prostate cancer screening depends on the risk of serious prostate cancer balanced against the harms of overdiagnosis and treatment. We now **define the risk threshold by age, family history and African American race.** Screening is **discouraged before age 55** for most men, but men with a close family member with prostate cancer or AA race may consider starting earlier. Because studies show no survival from screening and treating for 10 years or more, screening is **discouraged after age 70.** Better **measures of risk**, such as **genetic and microbiome¹** information, may define more precisely when and whom to start screening, and better life expectancy measures when to stop. A Swedish study found that **prostate cancer family history** could increase risk enough to **start screening 9 years earlier.²**

Screening Processes: Finding **more life-threatening prostate cancers or fewer clinically unimportant** cancers increases the net benefit. A Swedish trial using **MRI-guided biopsy** of men with PSA above 3 identified as many higher risk prostate cancer and **fewer low-risk cancers.³**

Pandemic-related PSA testing drop probably resulted in **missed prostate cancers: A nationwide laboratory** found that **PSA testing but not prostate biopsies recovered** in June to December 2020 after a sharp decline March-May. Catch-up PSA and biopsy is likely required to diagnose missed prostate cancer diagnoses, but the brief period of decline and full PSA recovery suggests a **modest impact on prostate diagnoses.⁴**

Screening Today: **Shared decision making** (SDM) is recommended for standard risk men 55-69 years and higher risk men 45-65 because the **benefit of PSA screening** for prostate cancer is **uncertain** (US Preventive Services Task Force), **delayed** a decade or more and can harm men from **side effects of overtreatment** for harmless prostate cancers for. It is **not recommended age 70** or older. **Three Major Screening trials** 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.⁵ 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.⁶

Strang Cancer Screening Trial and shared decision making: Strang-funded researchers performed a **randomized trial of cancer screening educational supports** for primary care providers indicated the benefit of shared decision making. Our final analysis of the trial, delayed by slow release of Mount Sinai-controlled data, has resumed. Preliminary data indicate that shared decision making improves communication and understanding about screening.

PROSTATE CANCER PREVENTION **Obesity:** Pooled data of over 830,000 men found that middle and older men but not young adults with central obesity a 20-39% increase in prostate cancer mortality.⁷ **Plant-based diet:** A systematic review of interventional and observation study found **lower prostate cancer incidence**, later recurrences and better quality of life **with a plant-based diet.⁸**

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. Ohadian Moghadam S, Momeni SA. Human microbiome and prostate cancer development: current insights into the prevention and treatment. *Front Med* 2021;15:11-32.
2. Xu X, Kharazmi E, Tian Y, Mukama T, Sundquist K, Sundquist J, et al. Risk of prostate cancer in relatives of prostate cancer patients in Sweden: A nationwide cohort study. *PLoS Med* 2021;18:e1003616.
3. Eklund M, Jaderling F, Discacciati A, Bergman M, Annerstedt M, Aly M, et al. MRI-targeted or standard biopsy in prostate cancer screening. *N Engl J Med* 2021;385:908-20.
4. Kaufman HW, Chen Z, Niles JK, Radcliff J, Fesko Y. Patterns of prostate-specific antigen testing and prostate biopsies during the COVID-19 pandemic. *JCO Clin Cancer Inform* 2021;5:1028-33.
5. 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.
6. 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.
7. Genkinger JM, Wu K, Wang M, Albanes D, Black A, van den Brandt PA, et al. Measures of body fatness and height in early and mid-to-late adulthood and prostate cancer: risk and mortality in The Pooling Project of Prospective Studies of Diet and Cancer. *Ann Oncol* 2020;31:103-14.
8. Gupta N, Patel HD, Taylor J, Borin JF, Jacobsohn K, Kenfield SA, et al. Systematic review of the impact of a plant-based diet on prostate cancer incidence and outcomes. *Prostate Cancer Prostatic Dis* 2022;25:444-52.

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



September is Prostate Cancer Awareness Month



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