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

Prevention

Prostate Cancer Awareness Month September 2024

REDUCING MORTALITY FROM PROSTATE CANCER

Note to Readers: Innovation is essential to cancer prevention. Using genomic data and new analytic techniques to create precision medicine may also enable **precision prevention**. Innovation may also increase the reach and effectiveness of cancer prevention approaches. Strang will continue to highlight innovation in cancer prevention.

PROSTATE CANCER SCREENING:

Innovation in Screening: **Misinformation** may **keep men from PSA screening**: An American Cancer Society poll found **2/3** of men **wrongly believe** that a **rectal exam** is the **first step in PSA screening. Half** of those who **hadn't asked their provider** about PSA screening **would have** if they **didn't think** it required a rectal exam. Two in five (38%) didn't know a **family history of prostate cancer** affects PSA screening eligibility, but nearly ¾ **(73%) of black men were aware** of the familial prostate cancer risk. Education may help men evaluate PSA screening better.[1]

Combining PSA screening and **Stockholm3 risk test finds serious prostate cancers but reduces biopsies:** Because **most men with high** screening **PSA** levels **don't have prostate cancer**, **1.4 million biopsies** occur each year to find **300,000 prostate cancers**. The **Stockholm3 test** uses PSA, free PSA, KLK2, GDF15, and PSP94 protein levels; a polygenic risk score; the HOXB13 G84E germline variant; and age, prostate cancer family history and prior prostate biopsy to **identify men at low risk for a fatal prostate cancer** who can **safely avoid a prostate biopsy**. In the **SEPTA** observational study of a very **diverse US and Canadian population**, using Stockholm3 results, the **biopsy rate** would **drop 48%** but find the **same number** of **serious** (clinically meaningful) **prostate cancers**.[2]

The Stockholm test may be **an alternative** to **MRI tests**, the standard test to find men with high PSA but a low risk of cancer.[3] However, **patients have trouble understanding their risk** accurately. **Men highly overestimate their risk**, the Prostate Imaging Reporting and Data System [PI-RADS], leads men to highly overestimate their risk. The terms **"equivocal" (PI-RADS3), "likely" (PI-RADS4) and "highly likely" (PI-RADS5) mean an 11%, 37% and 70% risk** of clinically meaningful prostate cancer, respectively. Men interpreted these results in their own MRI reports as 50%, 75% and 87%, respectively, which are **4-fold, 2-fold or 25% higher** than their actual risk, respectively.[4] Communicating risk to patients is difficult. Having a single **numerical cutoff for low risk** like the **Stockholm3 test** may help patients understand their low risk and be comfortable without a prostate biopsy.

PSA screening in **transgender women taking estrogen:** Transgender women are **at risk for prostate cancer**. However, **hormonal treatments alter PSA** levels. PSA levels for 210 transgender women taking estrogen about 5 years **averaged 0.02 ng/ml, compared to 1.0 ng/ml** for same-aged **cisgender men**. "High-risk" screening PSA levels for transgender women will be far below rules for cisgender men and require new research.[5]

Ethics of race-based PSA screening: **Race** is associated with important **health disparities**. However, these occur largely because of **associated socioeconomic differences**, and race has **little biological meaning**. However, **self-identified race is strongly related to prostate cancer risk**: self-identified Black men have the highest have the highest risk of death from prostate cancer and Asian American men have the lowest. Self-identified race may help encourage higher-risk men to discuss screening with their doctors but should not get in the way of identifying and working to eliminate social causes of poor outcomes. Arenas-Gallo and colleagues thoughtfully discuss this difficult ethical problem.[6]

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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
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September is Prostate Cancer Awareness Month

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