



Strang Cancer Prevention Institute

Dedicated to Promoting Cure by Early Detection and Research to Prevent Cancer since 1993

Prevention

Prostate Cancer Awareness Month September 2026

PROSTATE CANCER: NEW DIRECTIONS IN EARLY DETECTION

Note to Readers

Innovation is essential for cancer prevention. New analytic, diagnostic, and treatment methods, including precision medicine and artificial intelligence, continue to transform early detection and risk reduction. The Strang Cancer Prevention Institute, whose mission since 1933 has been to promote the cure of cancer through early detection and research, will continue to highlight important advances that improve patient outcomes and expand access to life-saving care.

Summary

Prostate cancer screening is becoming more individualized. Rather than relying on prostate-specific antigen (PSA) testing and digital rectal exam (DRE), researchers are developing screening pathways that better estimate the risk of clinically significant prostate cancer to determine what should happen next. New evidence suggests that baseline PSA can identify men who may need less frequent screening, additional blood or urine biomarkers can help determine who is most likely to benefit from biopsy. Further structural and functional evaluation with MRI scans optimize the timing and need for prostate biopsy. Together, these approaches aim to detect clinically significant cancers while reducing unnecessary testing and overdiagnosis. At the same time, optimized approaches to prostate biopsy, when indicated, have nearly eliminated the risk of this procedure.

Prostate Cancer Screening is Becoming More Risk-Adapted

Traditional prostate cancer screening has relied heavily on PSA testing. This has allowed for earlier detection of prostate cancer. Although elevated PSA levels can identify men who may have prostate cancer, elevated PSA levels can also result from benign conditions. Prostate cancer screening based on PSA alone may lead to unnecessary imaging and biopsies in men who do not have clinically significant cancer.

The emerging approach is more selective. PSA testing remains an important first step, but subsequent testing can be guided by individual risk. Newer biomarkers may then help identify which men are most likely to have cancer that require further investigation including MRI scanning and possible biopsy.¹ This layered approach shifts the goal from detecting cancer that may be clinically not harmful to also identifying the cancers most likely to cause harm.

A Single PSA Test May Help Guide Long-Term Screening. A 2026 study published in JAMA Network Open followed middle-aged men for up to 20 years and found that a single baseline PSA measurement was strongly associated with future prostate cancer risk.² Men with low PSA levels had a very low risk of developing prostate cancer over the following years.

These findings suggest that PSA testing could help determine screening frequency. Men with low baseline risk may be able to undergo screening less often, while those with higher PSA levels may require closer surveillance. Serial PSA tests to detect abnormal PSA velocity (increase of PSA over time) can also be a very effective tool to detect clinically significant prostate cancer. Progressive increase of PSA greater than 0.35 ng/mL/year is an important tool in detecting clinically significant prostate cancer.

Shorter MRI Scans Could Make More Precise Screening Easier

MRI scans help physicians decide whether a prostate biopsy is necessary as well as to target the regions of the prostate most likely to contain clinically significant cancer during biopsy. MRI refinements, such as those in the 2025 PRIME trial found that a shorter biparametric MRI scan, which does not require contrast injection, detected clinically significant prostate cancer as effectively as conventional multiparametric MRI scans.³

In 2026, international experts also published new standards for using MRI scans in prostate cancer screening. The recommendations support short, non-contrast MRI protocols following initial PSA testing in appropriately selected men.⁴ Shorter scans could make MRI easier to integrate into broader screening programs and help reduce unnecessary biopsies.

Blood and Urine Biomarkers May Further Refine Biopsy

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Decisions

New biomarkers may guide decisions to perform a biopsy following an abnormal PSA test. A 2026 multicenter study combined the blood-based Prostate Health Index (PHI) with urinary RNA markers called PCA3 and TMPRSS2:ERG, and this approach improved the identification of men with clinically significant prostate cancer compared with the individual tests alone.⁵ Other blood tests that incorporate PSA as well as other proteins, such as kallikreins may provide improved prediction of the risk of clinically significant prostate cancer. These tests are not intended to replace PSA screening. Instead, they may help physicians better determine which men need further investigation and which can safely avoid an unnecessary biopsy.

Together, these advances point toward a more individualized approach to prostate cancer screening. By matching additional testing to a man's level of risk, future screening programs may find aggressive cancers earlier while reducing unnecessary procedures for men at low risk.

Optimized Procedures For Prostate Cancer Detection

The diagnosis of prostate cancer is made by prostate biopsy. Tissue is then analyzed primarily based on Gleason score that allows Gleason Grade Group assessment and categorizes patients into their prostate cancer risk level, guiding treatment. Increased recognition that low grade prostate cancer, low-volume Gleason Grade Group (Gleason 3+3=6) cancers, typically do not progress to invasive disease has allowed avoidance of definitive treatment, using active surveillance instead.

The procedure of prostate biopsy was previously performed with a transrectal approach that was associated with a risk of bleeding and 3-5% risk of infection or sepsis. Biopsies are now routinely done using a transperineal approach with MRI guidance, nearly eliminating risk of infection from this important procedure for cancer detection.

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IMPORTANT LINKS FROM THE STRANG WEB SITE

<https://www.strang.org>

PROSTATE CANCER SCREENING AND PREVENTION

<https://www.strang.org/prostate-cancer>

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<https://www.strang.org/mission>

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<https://www.strang.org/history>

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<https://www.strang.org/timeline>

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NCI (National Cancer Institute) CANCER CENTERS BY STATE

<https://www.strang.org/us-cancer-centers>

STRANG CANCER PREVENTION COOKBOOK

<https://www.strang.org/strang-cookbook>

RESEARCH GRANTS AND PROGRAMS SUPPORTED

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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 cook 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

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September is Prostate Cancer Awareness Month



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