

Is Ben Stiller Bringing The PSA Test Back?



By *Kedist Tedla* — October 10, 2016



In a recent [article](#) [1], actor Ben Stiller chronicled how early diagnosis of prostate cancer - by a routine [Prostate-Specific Antigen \(PSA\)](#) [2] blood test - saved his life; as such, he urged all men over 40 to discuss the PSA test with their doctors. There is no doubt that the testimony of a high-profile individual such as Mr. Stiller will cause many men to consider getting a PSA test yet we at the American Council on Science and Health and many others have been critical of it, so it is fitting that we review where science stands on the issue.

The PSA is a blood test that measures particles from abnormal prostate cells. For many years, it was widely used to routinely screen men for prostate cancer; but as of late, research findings have brought its validity into question. But before we delve into the controversy, it is important to understand what makes a test a good screening tool. The purpose of a screening test is to detect a disease early, so it can be treated before it causes serious harm. But for a test to be considered a good screening tool, it has to meet the following criteria:

- Be highly sensitive, meaning if there is a disease, there is high likelihood it will be detected by the test.
- Be highly specific, meaning if the test is positive, there is high likelihood it is because of that disease and not some other reason.

Basically, we want to avoid both false positives and false negatives as much as possible. The former leads to expensive, unnecessary treatment and stress, the latter delays treatment at the risk of health.

If someone has prostate cancer and did not know it, the PSA level will likely be high, so bingo! we caught the cancer early. The problem with the PSA test is its lack of specificity, which leads to over-diagnosis and over-treatment, too often for problems that do not cause serious harm.

Challenge #1: When routine testing reveals an elevated PSA, it is not always caused by cancer. More often than not, it is for benign reasons such as prostate enlargement, prostate infection/inflammation, or some type of manipulation of the prostate gland. Doctors have no way of knowing what the cause is without additional tests like an ultrasound and, in some cases, a needle biopsy. You may be saying to yourself, 'so what is the problem with doing more tests?' Well, research is showing us that very few of those evaluations actually lead to a diagnosis of clinically significant cancer. In a recently published nationwide [study](#) [3] involving 38 340 men, 10 490 abnormal PSA results resulted in 680 (6.48%) clinically significant prostate cancer diagnoses. Opponents of routine PSA-based screening say that too many men are having to undergo invasive testing when they do not have prostate cancer.

Challenge #2: The second challenge arises after cancer diagnoses. Most prostate cancers are slow growing and do not cause any clinical significance during a person's lifetime, while a few may quickly progress and lead to death. Unfortunately, doctors are not able to distinguish between the two. So, up to [90% of men](#) [4] with PSA-detected prostate cancer in the United States are getting early treatment with surgery, radiation, or hormone therapy. The question is, do these treatments save a lot of lives? Research is saying, not so much.

The U.S. Preventive Services Task Force (USPSTF) cites that "5 in 1000 men will die within 1 month of prostate cancer surgery and 10-70 men will have serious complications but survive." The potential complications of treatment include, but are not limited to, urine incontinence and impotence. The task force adds that "the benefit of PSA screening and early treatment ranges from 0 to 1 prostate cancer deaths avoided per 1000 men screened." This is based on [two high-quality randomized studies](#) [5], one of which showed no mortality benefit and another, which showed a small benefit in only selected cases.

Here's what other experts say:

- **USPSTF:** [does not recommend](#) [6] PSA-based screening for anyone. It gives it a D" rating, which means, "there is moderate or high certainty that the service has no net benefit or that the harms outweigh the benefits."
- **American Urological Association** recommends it in [selected patients](#) [7]: age 40-55 with high risk (African Americans or family history), and age 55-69. It does not recommend routine PSA testing in men under age 40, age 40-55 (with average risk), or age 70/older (with limited life expectancy).
- **American Cancer Society** recommends that men at average risk start the discussion about prostate cancer screening with their doctor at age 50, while those at higher risk (African American, older, or with family history) begin discussion at age 45.

While celebrities have the power to increase awareness about subjects like cancer-screening, it is important to put the information they provide into the proper context. For every gentleman like Mr Stiller, who benefited from a PSA test, research tells us there may be 1,000 men who likely did not.

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Links

[1] <https://medium.com/cancer-moonshot/the-prostate-cancer-test-that-saved-my-life-613feb3f7c00#.3q1tj42cs>

[2] http://acsh.org/search?search_api_views_fulltext=PSA

[3] <http://www.tandfonline.com/doi/abs/10.1080/03007995.2016.1198312?journalCode=icmo20>

[4] <https://www.uspreventiveservicestaskforce.org/Page/Document/RecommendationStatementFinal/prostate-cancer-screening#update-of-previous-uspstf-recommendation>

[5] <https://www.ncbi.nlm.nih.gov/books/NBK82303/>

[6] <https://www.uspreventiveservicestaskforce.org/Page/Document/UpdateSummaryFinal/prostate-cancer-screening>

[7] <https://www.auanet.org/education/prostate-cancer-psa.cfm>