

The PSA test for detecting prostate cancer. Should I get it?

Most people are interesting in detecting illnesses early, particularly cancer. We have excellent evidence that tests to detect colon cancer early save lives and improve the quality of life. The situation is a little more cloudy with breast cancer, but it is generally recommended for women over the age of 40.

What about prostate cancer? Prostate cancer is the second leading cause of death from cancer in men after lung cancer. The risk of developing prostate cancer in the next 10 year in men aged 50 is 2.01% and it is 6.46% in men aged 60. The incidence is higher in blacks.

Prostate cancer, as opposed to prostate enlargement, has no symptoms in the early stages. Because there are no symptoms in the early stages, and because it is so common, there has been a lot of interest in screening and early detection.

Prostate specific antigen (PSA) is a test that has been available for about a decade. It is not diagnostic of prostate cancer and can be elevated for other reasons. However, results above 4.0 ng/ml are associated with cancer to a high enough level that a biopsy is usually recommended for people who have PSAs which remain above 4 on two consecutive tests 6 months apart. Often, it is recommended that PSAs be performed in conjunction with a digital exam of the prostate. The PSA is a blood test and is relatively economical.

Sounds like a no brainer! Every male should have a PSA test. But here are the problems. Whether PSA screening actually saves lives and improves the quality of life has been poorly studied. There are other questions. *What age should we recommend screening?* (Most organizations advise those over age 50 and younger for those at high risk for prostate cancer.

What should be the cutoff for normal? Although most recommend 4.0, some recommend as low as 2.4 ng./ml.

How effective is the treatment? Before tackling that, one should know that there appears to be two types of courses of prostate cancer. One can spread rapidly and can cause serious illness and death. This typically occurs in younger men. The other is a far more benign course. In fact, approximately $\frac{3}{4}$ of all men who get prostate cancer never have any symptoms and it never affects their quality or duration of life. Furthermore, although we have hints at the time of initial diagnosis based upon the microscopic examination, we cannot differentiate with sufficient accuracy between these two courses. Treatment for prostate cancer has improved dramatically in the last decade and will probably continue to improve in the future. Typically the choice is surgery vs. radiation. These are often supplemented by chemotherapy or hormonal manipulation. Despite the advances, there is a significant risk of side effects, most notably impotence and urinary incontinence. Some recent studies point to improved survival in patients who were diagnosed by PSA with subsequent surgical treatment, although the magnitude of the improvement was not great.

So it boils down to this. If one is tested with PSA and the results are greater than 4, one needs to be prepared for a cascade of tests and procedures that may lead to surgery or radiation therapy. The treatment holds the promise of some increase in survival, but also hold the risk of significant side effects.

For these reasons, most professional organizations recommend that patients understand the risks and benefits and make an individual decision. If one is determined not to have treatment, no matter what the results are, then it is hard to recommend screening. On the other hand, if one wants to minimize the odds of dying from prostate cancer and would be willing to live with any kind of side effect and would never consider “watchful waiting”, then regular PSAs (between one and five years apart- another area of controversy) is probably for you.