



**The PSA & Prostate Cancer Physician's
At-a-Glance Resource Guide**
The PSA Test



A Patient-Doctor Shared Decision

Many doctors and patients choose to screen for prostate cancer because they feel they should know whether or not there is an early cancer. In fact, screening is highly controversial because we still do not know if screening with a PSA or a digital rectal exam improves cancer outcomes, but we know that the treatment of a prostate cancer can harm the patient. This controversy led the AAFP to recommend that doctors should discuss "the known harms and the uncertain benefits" of prostate cancer screening in males over 50 years old. How can screening for prostate cancer not be helpful? We know that any screening test, like the PSA, preferentially detects less aggressive cancers. Thus, it may be that aggressive cancers will have already metastasized, and the less aggressive cancers found by screening will never hurt the patient...the PSA is not sensitive enough to find the aggressive cancers early enough. Or it may be that through the use of the PSA

velocity one can detect aggressive cancers in time to make a difference in the patient's course. We just do not yet have sufficient information to know, though studies are under way.

While the benefits of prostate cancer screening are not known, the potential harms are well described. About 50% of patients undergoing prostate cancer treatment experience a significant side effect. So, what should be done? Should we screen, hoping that the current studies will show screening and treatment are effective? Or should we wait, taking a 'first do no harm' stance and avoiding the known risks until the evidence demonstrates a benefit? Since the answer is not clear, the AAFP recommends the decision be made jointly by the patient and the doctor, with the doctor providing the data the patient needs to make an informed choice using the patient's value system. This document will help you know the key facts.

Prevalence:

Prostate cancer is the most common cancer found in men and the second leading cause of cancer related deaths.

- 31,900 deaths will be attributable to prostate cancer (predicted 2000 data)
- 2.8 million cases of prostate cancer were reported in the U.S. (1996 data)

Big problem, but relative to other causes of death & morbidity.....

	<i>CVD*</i>	<i>Accidents*</i>	<i>Cerebrovascular Disease*</i>	<i>COPD*</i>	<i>Diabetes*</i>
<i>Deaths (males)</i>	353,897	63,042	61,145	57,018	29,584
<i>Death Rate**</i>	268.0	47.7	46.3	43.2	22.4

*1998 data

** per 100,000

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In general, for every 100 men who have a PSA, there will be:

10 with an abnormal PSA. Of these 10,

- 3 will have prostate cancer (true positive)
- 7 will not have prostate cancer (false positive).

Of the 90 with a normal PSA,

- 89 will not have prostate cancer (true negative)
- 1 will have prostate cancer (false negative).

PSA screening may or may not results in longer life &/or increased quality of life

“Pros” for getting a PSA:

- Some prostate cancers will grow and spread outside of the prostate and cause morbidity & death; treating these cancers early, before they metastasize may prolong life.
- Studies have shown that the measurement of PSA levels over time (“PSA velocity”) is the most effective indicator for identifying the aggressiveness of prostate cancer and therefore identifying which ones might be the most appropriate to treat.

“Cons” for getting a PSA:

- 42% of men will get prostate cancer in their life time, yet only 5%-10% will have any morbidity related to prostate cancer & only 3% will die of prostate cancer → Prostate cancer is generally so slow growing that men will die of other causes and would never even know they had prostate cancer unless they were screened & had a biopsy.
- No treatment, including watchful waiting, has been shown to be more effective than another in treating prostate cancer.
- Most treatments are associated with significant morbidity, including impotence & incontinence.

Probability of complications from treatment.....

	Radiation	Surgery
Death	0.2% (2 per 1000)	0.5% (1 per 200 [younger men]) 1% to 3% (older men)
Impotence	40%	30%* to 90%
Any incontinence	60%	32%
Any rectal Injury	11%	30%

*nerve sparing surgery