



MINIDOKA
MEMORIAL
HOSPITAL

 **aboratory Services**
YOUR PSA BLOOD TEST RESULTS

"A Better Life, A Better Way"

PSA BLOOD TEST – UPDATED 2009

Prostate Specific Antigen (PSA), first described in 1979, is a glycoprotein secretion of the prostate tissue cells and is also produced by prostate cancer cells. The blood test is relatively new and can help to identify prostate cancer before it would otherwise be detectable. It is also used to follow and monitor patients with known prostate cancer after treatment.

PSA is a very sensitive test, but it is not specific. In other words, unless it is very high, the test itself does not mean that you have prostate cancer. It simply serves as a warning sign that further evaluation is needed.

The normal range is between 0 and 4.0 ng/mL with a “diagnostic gray zone” between 4 and 10 ng/mL. The PSA result can go very high with advanced cancer, well up into the hundreds and rarely even into the thousands. And as an elevated result doesn't mean that there is cancer for sure, **a normal result can also be seen with cancer in its early stages especially in the 2.5 to 4.0 ng/mL range.**

There are many reasons for a mild elevation of the PSA, including simply an enlarged prostate, an infection in the prostate, very recent prostatic surgery, biopsies or manipulation, or cancer. Of course, the last reason is the source of all the attention.

Monitoring the PSA numbers over time is even more important than a single number especially with values greater than 2.5 ng/mL. If it is consistently going up, then there is reason for concern and further testing. A single elevated PSA above 4 ng/mL by itself is still reason to proceed with additional studies.

PSA molecules come in many forms: Some are bound to other proteins, while some are “free” or floating freely in the bloodstream. **In the range of 2.5 to 10 ng/mL PSA, prostate cancer is more likely to be present in men who have a low percentage of free PSA relative to the total amount of PSA. This ratio of free PSA to total PSA can help distinguish prostate cancer from benign prostatic conditions with a 20% reduction of biopsies while still detecting 95% of cancers. Generally free PSA /PSA ratios greater than 20% suggest a benign condition, while ratios < 10% suggest carcinoma of the prostate.**

Most often following the identification of an elevated PSA, a prostatic exam with a history is performed. Your doctor will often then proceed with a prostatic ultrasound and biopsy. These let them look into the depths of the prostate, well beyond feeling the back wall of the prostate with the tip of a finger. As some cancers cannot be seen on ultrasound, biopsies are usually required to provide representative samples of the prostate gland. Because it is impossible to sample the entire gland, there is always a chance of “sampling error” meaning that the biopsies would come back normal even though there really is underlying cancer present. The pathologist can only analyze the samples they receive. Though uncommon, this is the reason for follow-up exams and PSA determinations.

As a Health Fair benefit and thanks to the generous donation of testing kits by Abbott Diagnostics, this year we will run free PSA and % free PSA on all PSA values greater than 2.5 ng/mL.

We at Minidoka Memorial Hospital appreciate your taking advantage of the offering of these valuable tools towards your better health.

See you next year “AT THE FAIR”.

Technical information provided by Donald Weese, M.D., Urologist. 1996

Additional updated information by William J. Catalona, M.D., Northwestern University Urological Research Foundation 2005