



*The mission of the Foundation for Cancer Research and Education is to decrease the death rate from prostate cancer while enhancing quality of life. Our focus on prostate cancer research will be a model for the treatment of other cancers and will prevent heart attacks and strokes.*

*Our educational efforts are to acquaint the general public, cancer patients, and health care professionals with recent advances in prevention, diagnosis, and treatment of prostate cancer.*

*FCRE advocates comprehensive cancer care, which means understanding all of the available cancer treatment options and combining them if necessary. A comprehensive program also includes evaluation and treatment of cardiovascular disease, obesity, diabetes, or any other disease that affects overall health.*

*FCRE partners with other foundations, institutes, institutions, hospitals, and support groups to host conferences, seminars, special events, and produce publications to reach as many men and women as possible. Our information comes from the best available science and is grounded on solid, evidence-based medicine gleaned from well-designed clinical trials.*

*To make a donation, request brochures, or to sign up for our newsletter, please contact us on the web, via email/postal mail, or by phone.*

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# PSA Results

## What They Mean

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### What a High PSA Means

Keep in mind that a high PSA result doesn't automatically mean you have cancer. An elevated PSA can indicate BPH or a benign prostate enlargement, inflammation, or an infection. If you do have a high PSA your doctor will perform a number of other tests to determine the source. These tests can include: a DRE, a urine test, a transrectal ultrasound, x-ray, cystoscopy, or a biopsy.

### It's Not Necessarily Cancer

Approximately 25-35% of men with an elevated yearly PSA end up being diagnosed with prostate cancer. Your PSA can actually be affected by a number of other factors independent of any prostate problems or diseases, including: your age (your PSA will slowly rise as you age), or any medication you're on (Proscar, Propecia, and Avodart can all lower PSA levels). Even recent ejaculation can affect your PSA level, which is why most doctors recommend you abstain from ejaculating two days before testing.

## THE PSA TEST

The PSA is a blood test given to middle-aged and elderly men. PSA, or prostate specific antigen, is a protein produced by the prostate cells. An elevated PSA can indicate a number of health issues such as an enlarged prostate or prostatitis, but is most popularly known as an essential component of prostate cancer screening. Comprehensive prostate cancer screening involves yearly PSA blood tests and a prostate exam called a DRE. If both PSA and DRE appear troublesome, a biopsy of the prostate gland is the next step.

### Who Should Be Tested?

All men should get a first-time PSA test between the ages of 35-40 to be repeated every other year. Begin routine yearly testing at 50. Men at higher risk for prostate cancer such as African American men and those with a family history of prostate cancer should begin yearly testing at 45.

### The Screening Controversy

There's an ongoing debate over whether PSA screening leads to over-diagnosis and over treatment. At the heart of the issue is the fact that prostate cancer is a highly variable disease: some cancers are harmless and don't require treatment while others are aggressive and need immediate treatment. Many worry these harmless cancers are being treated aggressively, driving up health care costs and exposing men to debilitating side effects. But the earlier you diagnose a cancer, the more likely you can treat it with minimal interventions. The key is finding a doctor who can identify which kind of cancer you have and treat it appropriately.

## Beyond The PSA

***There's more to the PSA test than the initial number you receive after your yearly screening. Here are some more detailed versions of the PSA test that help doctors uncover the source of your elevated PSA as well as provide information about any prostate diseases you may have.***

### PSA DENSITY

The PSA density test is based on the understanding that since prostate specific antigen is produced by prostate cells (whether or not they're cancerous) the larger a man's prostate the more PSA he'll produce even if he doesn't have cancer. This test measures the volume of a man's prostate via transrectal prostate ultrasound and divides the PSA blood level by the size of the prostate. The result is PSA density. If you have a high PSA density that indicates that you have a small volume of prostate tissue making a lot of PSA. A low PSA density indicates that you have a large volume of prostate tissue making little PSA.

### PSA VELOCITY

PSA velocity, or the rate at which your PSA is increasing, is one of the most important tools in determining how dangerous a man's prostate cancer is. Why? Since we know that prostate specific antigen is produced by the prostate cells, then a rapidly increasing PSA means the number of cells in a man's prostate is rapidly increasing. What types of cells begin to rapidly increase? Cancerous cells.

### PERCENT-FREE PSA

In the blood, prostate specific antigen either binds to proteins or remains free. The percent-free PSA test measures the ratio of free to bound PSA in your total PSA. Why is this information important? While it's perfectly normal to have both bound and free PSA, studies have found that men with prostate cancer have lower levels of free PSA; high free PSA may mean you merely have benign prostatic hyperplasia (BPH) and not cancer.

### PSA DOUBLING TIME

Your PSA doubling time is a very important tool for prostate cancer patients. PSADT is the amount of time it takes for your PSA to double. Why would you want to know this? Since we know that prostate cells produce PSA, the amount of time it takes for your PSA to double is the amount of time it's taking your prostate cells to double. If your PSA is doubling rapidly, that indicates your prostate cancer is growing rapidly and needs to be treated aggressively and immediately.