



# ask the **DOCTOR**

**ZERO**  
THE END OF PROSTATE **CANCER**



## Prostate Cancer Biomarkers and Family History

Conversations with your doctor about prostate cancer screening should begin at the age of 45. However, if you have a family history of prostate cancer, or if you are in a high-risk group as an African-American or a Veteran, those conversations should begin at the age of 40.

The most common, routine screening tool for prostate cancer is the prostate-specific antigen (PSA) test. This is a simple blood test that measures the presence of PSA in your bloodstream. This test is usually the first step in any prostate cancer diagnosis. However, the PSA blood test, by itself, cannot tell you if cancer is present.

### Reasons you might have elevated PSA levels, other than cancer:

- Advanced age
- Prostatitis (inflammation of the prostate gland)
- Riding a bicycle
- Recent sex (within the past 48 hours)
- Supplements
- Urinary tract infection

### What is a Biomarker?

A biomarker is a molecule found in blood, body fluids, or tissues that can signal a normal or abnormal process, or a condition or disease. PSA is a **biomarker for the diagnosis and screening of prostate cancer** and it was the first cancer biomarker approved by the FDA.

New biomarkers have been identified and developed to help doctors determine how likely it is that prostate cancer will be found in a biopsy. The goals of biomarker tests are to decrease unnecessary biopsies while increasing the likelihood of prostate

cancer detection without missing a significant number of prostate cancers.

### Additional Biomarker Tests

In addition to a PSA blood test, other biomarker tests are available to help you and your doctor decide if a biopsy should be taken. These tests can help patients gain information about their cancer and can aid in both the diagnosis and the decision on treatment. Some of these tests include:

#### PCA3 Test

- A urine test used to determine your risk of prostate cancer which more accurately detects the possibility of prostate cancer
- Used to determine the need for repeated biopsies

#### 4Kscore® Test

- A blood test used to determine the risk of a patient having aggressive prostate cancer
- The test measures total PSA, free PSA, intact PSA, and certain enzymes called kallikrein

These tests, and others, should be used in conjunction with PSA tests, digital rectal exams (DRE), patient information, and biopsy information to provide a personalized risk assessment for patients. Always consult with your doctor and care team to determine the best steps for you.

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