



Prostate BioMarker



The problem

An elevated PSA does not necessarily mean that you have prostate cancer. Only a biopsy can determine whether it is prostate cancer or not. Nonetheless, many men with high PSA levels will have a benign condition, and a biopsy can be unpleasant and may pose a risk for complications. Furthermore, prostate biopsies not only find aggressive but also mild prostate cancer. This type of cancer may never cause any problems but is often treated (unnecessarily). In addition, the diagnosis of an indolent prostate cancer may cause anxiety and have psychological impact.



The options

In case of increased PSA levels, a suspicious digital rectal examination (DRE) or insecurity about a prior negative biopsy, there are non-invasive options to determine a man's risk of having prostate cancer, prior to performing a prostate biopsy:

- **Imaging techniques (magnetic resonance imaging, MRI)**
- **Risk calculators based on clinical characteristics**
- **Biomarker tests based on genetic and clinical characteristics**

If the result of either means is abnormal, a prostate biopsy is still needed to diagnose prostate cancer.

▶ **Imaging techniques.** A non-invasive technique that allows to visually inspect the prostate and the difference between healthy and suspicious tissue. Interpretation is however not straightforward [1,2].

▶ **Risk calculator.** A very quick test to calculate the probability of finding prostate cancer during a biopsy. Not so reliable as biomarkers because they only use clinical information [3].

▶ **Biomarkers.** Blood or urine tests that combine genetic information of prostate cells with clinical information to give a quick and objective assessment of the likelihood of having prostate cancer [4,5].



The solution

Biomarker tests can discriminate between prostate cancer and benign prostatic conditions. They determine the **risk of aggressive prostate cancer in men with an elevated PSA, prior to performing a prostate biopsy**. Consequently, a biomarker test can help to decide to perform a biopsy and in turn avoid unnecessary biopsies.

Such tests are non-invasive because biomarkers are measured in a blood or urine sample. Biomarker tests can be done in both men with or without a prior prostate biopsy.

As with all tests, biomarker tests also do not give a 100% guarantee, meaning that there is still a risk of having prostate cancer while the test is negative. Compared with other available biomarker tests for prostate cancer, this risk is the lowest (only 2%) with the SelectMDx test.



About SelectMDx

SelectMDx is a new non-invasive urine test for determining a man's risk of (aggressive) prostate cancer. It measures the amount of two genes that are associated with aggressive prostate cancer. This is then combined with clinical information (age, PSA value, prostate volume, family history of prostate cancer, and the outcome of a digital rectal examination (DRE)) to calculate the likelihood of having aggressive prostate cancer. **If this likelihood is low, you can be 98% sure of not having aggressive prostate cancer and can consider to avoid an unnecessary biopsy.**

References

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