

DIAGNOSING PROSTATE CANCER

The process of diagnosing prostate cancer often starts with a PSA test and a Digital Rectal Examination. The PSA Test is discussed below, but it must be emphasized that the PSA test, while a marker test, is not a prostate cancer test.

What is Prostate Specific Antigen?

PSA does its work in the semen. When semen is ejaculated it is a clot of thick liquid. Imagine how difficult it is for an individual sperm to escape this thick ejaculate in order to swim to the egg to fertilise it.

The Prostate Specific Antigen is one of the compounds produced by the prostate. It is a special kind of protein which interacts with other chemicals. This enables PSA to break other proteins into smaller pieces. This process transforms the seminal fluid into a lighter, more free-flowing liquid that allows individual sperm to swim free to perform their function.

PSA is produced in large amounts in the prostate and some of the excess PSA leaks into the bloodstream where it actually has no function. It is this PSA that can be measured in the laboratory with tests that are extremely sensitive so that they can measure very small amounts of PSA in the blood.

The level of PSA measured in the blood may be a useful indicator for a man and his doctor to discuss whether any action is required. If a biopsy of the prostate is thought necessary, this may confirm the presence or otherwise of prostate cancer tumours.

Elevated PSA is not a diagnosis of prostate cancer

It is important to repeat that an elevated PSA alone is not a diagnosis of prostate cancer. Even where men - say 60-70 years of age - have a PSA reading in excess of twice the normal PSA level for their years almost half do not have a positive cancer finding on biopsy.

If there is PSA in a blood sample then somewhere in the body there is prostate tissue producing PSA. If the prostate itself has been removed by a surgical procedure or has been destroyed by radiation then the continuing presence of PSA means that there is prostate cancer tissue left behind or is growing in other parts of the body - this condition is known as a metastasis (pronounced meh-tast-a-sis).