

# Prostate cancer breakthrough: New blood test that spots aggressive and hard-to detect tumours is hailed more reliable than current options

By **Madlen Davies For Mailonline**, [www.dailymail.co.uk](http://www.dailymail.co.uk)  
November 9th, 2015

A new blood can spot 'hidden' aggressive prostate cancer tumours by analysing proteins and genes, new research has found.

The STHLM3 test was trialled in a large group of 58,818 men to see what difference it made to diagnosing dangerous cancers earlier.

Not only was it far more reliable than the standard PSA blood test, but it also revealed the presence of potentially lethal cancers that could easily be missed.



A new blood can spot 'hidden' aggressive prostate cancer tumours by analysing proteins and genes, a study has found. Pictured is a diagram of a male prostate

*Photo by: pictured in red*

PSA, or prostate specific antigen, is a protein that leaks into the blood stream from the prostate gland and is the most widely used way of initially identifying men with prostate cancer.

But the PSA test is notoriously unreliable, and for that reason has not been considered for population-scale screening for prostate cancer.

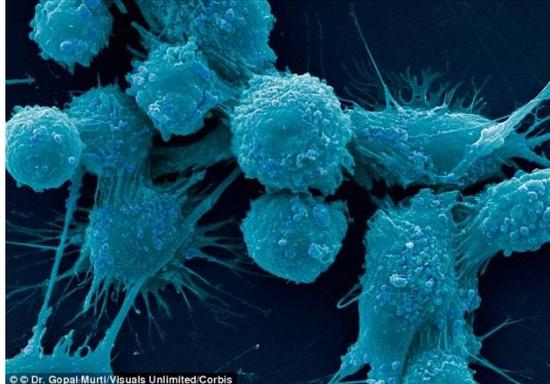
Some men with 'normal' PSA levels below 4 nanograms per millilitre (ng/ml) of blood have been found to have prostate cancer.

Conversely, others with relatively high PSA levels have turned out to be free of malignant tumours after undergoing unnecessary biopsies.

The new test reduced the rate of biopsies by 30 per cent without compromising

patient safety, the researchers reported in The Lancet Oncology medical journal. In addition, it detected aggressive cancers in men with low PSA values of 1-3 ng/ml.

Lead scientist Professor Henrik Gronberg, from the Karolinska Institute in Sweden, said: 'PSA can't distinguish between aggressive and benign cancer. 'Today, men who don't have cancer or who have a form of cancer that doesn't need treating must go through an unnecessary, painful and sometimes dangerous course of treatment.



The new test reduced the rate of biopsies by 30 per cent without compromising patient safety, researchers said. Pictured are prostate cancer cells under the microscope

'On top of this, PSA misses many aggressive cancers. We therefore decided to develop a more precise test that could potentially replace PSA.

'This is indeed promising results. If we can introduce a more accurate way of testing for prostate cancer, we'll spare patients unnecessary suffering and save resources for society.

'The STHLM3 tests will be available in Sweden in March 2016 and we will now start validating it in other countries and ethnic groups.'

The test analyses a combination of six protein markers and more than 200 genetic markers linked to prostate cancer, as well as taking into account personal patient details such as age and family history.

Each year around 41,000 men are diagnosed with prostate cancer in the UK and 11,000 die from the disease.

In the US, 177,489 men were diagnosed with prostate cancer in 2012 (the most recent year numbers are available) and 27,244 men died from the disease.