



Phlebotomist draws blood from Matt's arm to test for cancer

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EXCLUSIVE: 'I tried new test that can find tiny speck of cancer with astonishing accuracy'

The TruCheck test by Goodbody Clinic can detect 70 different cancers even when CT scans can't - and a NHS Galleri trial is looking at whether to make new early screening blood test available for everyone

By **Matt Roper**, Senior Features Writer

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I don't even feel the needle prick, and the three syringes fill up in seconds. But this blood sample - taken by a phlebotomist in my kitchen - could just save my life by catching **cancer** before it's even big enough to be seen on a hospital scan.

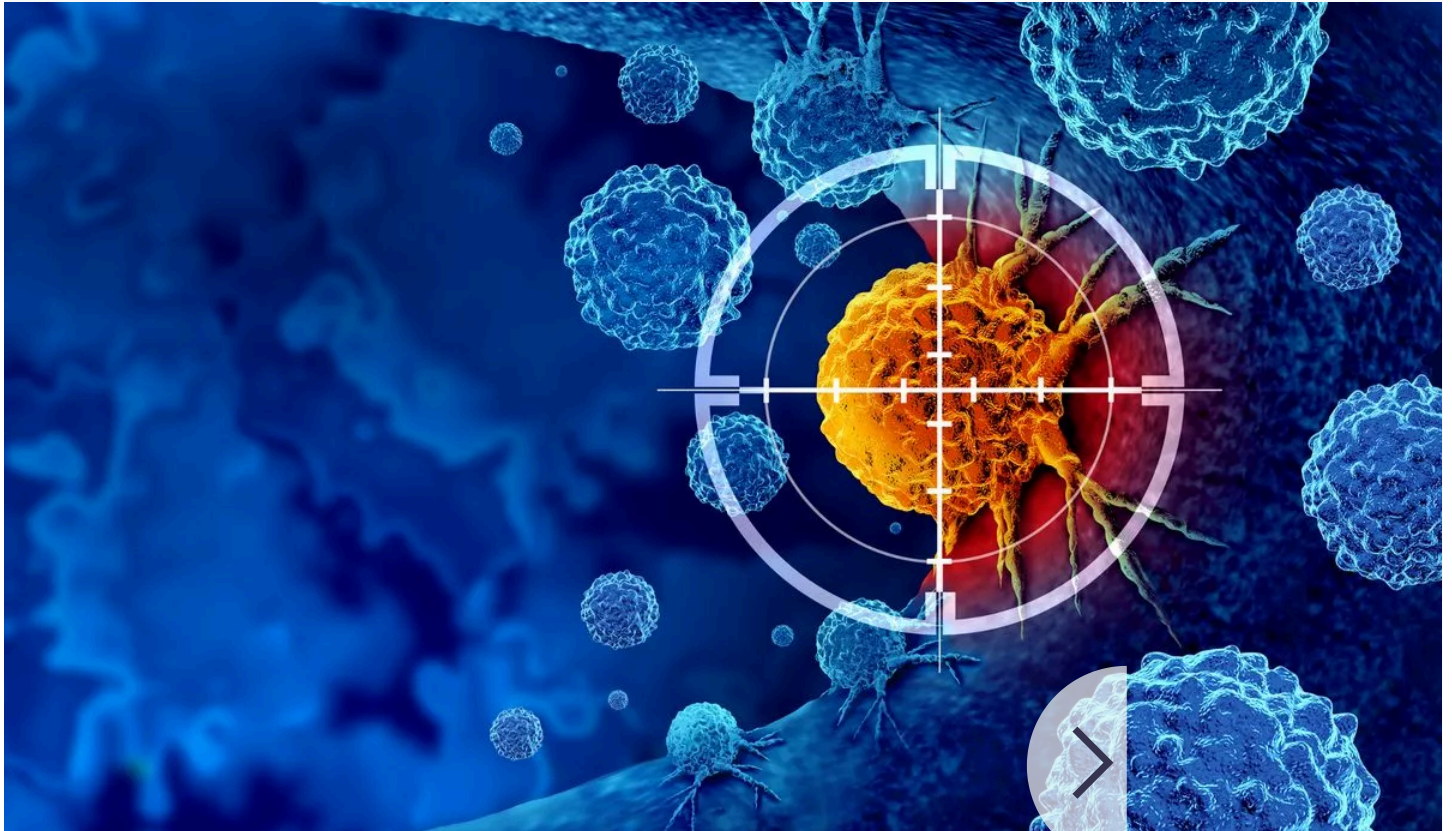
It will take less than two weeks to tell me what millions of Brits would like to know - whether there is a **tumour**, however small, somewhere in my body... and if there is, exactly where.

Since **Kate Middleton bravely told the world she is fighting cancer** last month searches about the early detection of cancer have soared as more people worry about whether they too could be unknowingly harbouring the deadly disease. Visits to the NHS's cancer page rose by

nearly five-fold following **Kate's announcement**, while visits to cancer charities Cancer Research UK and Macmillan also soared.

The **King's own cancer diagnosis in January** had a similar effect, leading to a 51% increase in searches for **NHS** advice on how even outwardly healthy people can discover if their bodies are hiding an undiagnosed cancer.

In fact a groundbreaking trial is currently taking place in the NHS which might do just that - and which might mean we could receive treatment before noticing any symptoms, or even before tumours are big enough to be picked up on CT scans.



The new blood test detects circulating tumour cells (CTCs), which are now known to be present in the blood of almost all patients who have cancer. (Image: Getty Images)

Around 140,000 people aged 50 to 70 are taking part in the **NHS Galleri** study, which began in 2021 and uses a new blood test which can detect signs of even the minutest tumour - and pinpoint exactly where it is. The NHS is due to analyse preliminary results in the coming weeks to decide whether to go ahead with the next stage, which could mean millions of Brits could soon be able to benefit from the blood test for free - revolutionising the detection and treatment of cancer.

The test - which evaluates the presence of circulating tumour cells, or CTCs, in the blood, with an accuracy rate of over 80% - is at the cutting edge of cancer research and has only been available, privately, for a year.

To find out how the process works, I took a blood test by one of only two private companies that have a license to offer it in the UK, **Goodbody Clinic**. The TruCheck Cancer Test - which

normally costs around £1200 - can detect up to 70 types of cancer tumours, and accurately pinpoint which organ the cancerous cells originated.

Like most people, hearing the **Princess of Wales** is battling cancer aged just 42 made me think about my own **health** and the consequences of discovering a hidden cancer too late. I've just turned 50 - an age after which, depressingly, the risk factors for most illnesses, and especially cancer, suddenly shoot up.



Kate Middleton's video message revealing her cancer diagnosis caused a surge in searches about the disease

The idea of discovering if there was any kind of cancer, even at its earliest stage, curled up inside me was both reassuring and terrifying.

The test itself, however, wasn't at all traumatic. First, I was called by one of Goodbody's doctors, Dr John Pettit, who also works as an NHS GP, who asked me about my family history and reasons for doing the test, while explaining the background and science. The blood tests, he explained, go to a lab in Guildford where they take two to three weeks to process. "There are three or four complex stages of scientific laboratory work they have to do," he says.

The test is the result of a decade of groundbreaking research into circulating tumour cells, or CTCs, which are now known to be present in the blood of almost all patients who have cancer. "Even at the earliest stage, maybe when the tumour is just a millimetre across and not doing very much, it's releasing these little marker cells into the blood."



Filled vacutainer blood collection tubes ready to be sent off to the lab for analysis

The test, Dr Pettit explains, is incredibly accurate, and is able to precisely pinpoint the organ the CTCs are coming from. Specificity, or the percentage of people who correctly get a negative result, is 96-96% with the TruCheck test - compared with 90% for mammograms, 80% for PSA prostate testing and 86% for bowel cancer screening.

The other marker for screening tests, sensitivity - or those correctly diagnosed with cancer - is 88%. He says: "That means if you do have cancer lurking in your body, and you have a TruCheck test, there's an 88% chance of getting a positive result and finding it."

"So you've got a 9 out of 10 chance of picking up a cancer in there. That's not ideal, but again comparatively mammogram sensitivity is about 80% and prostate blood test is about 60%. If you're someone with no symptoms or signs of cancer, by having the test you're giving yourself a 9 out of 10 chance of detecting something that's hiding there. It's a 0% rate if you don't have the test."

The blood test, he explains, can detect 70 different types of cancer with the same degree of accuracy. "It includes what we call the big four, breast, bowel, lung and prostate, but 66 others as well, pretty much any cancer you can think of."

"The only ones it won't pick up are leukaemia, lymphomas and myeloma, because of the nature of the science. Those cancers sit in the blood cells, which are taken out of the samples before

it is processed.”

A few days after my phone consultation I received a kit with three vacutainer blood collection tubes in the post before a friendly phlebotomist came to my home to draw blood from my arm.

The process took less than ten minutes, after which she put the samples back in the prepaid envelope and popped them in the post box on the other side of my road.



Phlebotomist draws blood to test for cancer

The following days were certainly nerve-wracking, but unnecessarily so – if I did have cancer in my body surely it would be best to know about it, so I could get treatment as soon as possible. We know that early detection of cancer can mean the difference between survival and a death sentence – 9 out of ten diagnosed with bowel cancer at the earliest stage survive, compared with one in 10 at the latest stage.

I was told that if the laboratory found CTCs in my blood then a doctor would call me, so was relieved when 13 days later an email with my result pinged into my inbox.

“No circulating turnout cells were detected in your blood, which means that there is a much lower risk that you are harbouring a malignancy,” it read.

The knowledge I was – with around 99% certainly – free of any type of cancer immediately took away any worry or uncertainty I had as I entered my 50th year.

Dr Pettit says: “A negative result means it is highly unlikely that I will develop a cancer in the next year, so it gives you that level of peace of mind.”

He adds that of patients who have a positive result, seven out of ten have the cancer picked up on their first hospital scan, and for three out of ten there's a delay in finding the tumour because "the test is so sensitive sometimes the tumour's too small to show up on an MRI scan. So those people get retested and it might appear six weeks later, or months later, when it gets to the 3mm threshold that can be seen on an MRI. But it's been caught early and is usually curable."

He says if the test is rolled out on the NHS it would be game-changing. "You could be picking up nine out of ten cancers early, so the potential is huge.

"They're just trying to work out where it might fit into our healthcare system, for instance, whether it becomes a screening tool that's used for everyone over a certain age.

"As a GP it would be great to have these tests just to screen people who have symptoms, we're probably a few years short of that, but there is a lot of interest and a lot of work going on.

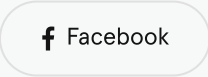
"There's lots of high-level excitement about this. It is a new science, the answers aren't all there, but there's enough data to show that the test is accurate and can save lives."

TruCheck is one of two blood based cancer screening programmes that have EU medical approval. The other, Galleri, which is currently being trialled on the NHS, also detects a broad range of cancers, by looking for DNA found in the blood that is shed by cancer cells.

NHS chief executive Amanda Pritchard said: "This quick and simple blood test could mark the beginning of a revolution in cancer detection and treatment here and around the **world**. By finding cancer before signs and symptoms even appear, we have the best chance of treating it and we can give people the best possible chance of survival".



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That's an amazing technique but rather cynically I wonder how long, if CTCs are detected. one would have to wait before getting to receive any cancer treatment in an NHS hospital.

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