

**US scientists have found a test which they claim is 100% effective at detecting early ovarian cancer.**

**Test detects early ovarian cancer**

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The test measures patterns of protein markers in a sample of a woman's blood.

National Cancer Institute researchers say the high-resolution mass spectrometry test allows cells that would lead to cancer to be identified.

Writing in the journal *Endocrine-Related Cancer*, they say it could be used routinely to diagnose early ovarian cancer in a few years time.

Ovarian cancer is the fourth most common cancer among British women, with 6,800 new cases each year.

"We hope that within a few years we will be able to develop a system which will enter routine diagnostic use "

- Lead researcher Dr Tim Veenstra

This form of cancer is hard to spot and as a result it is often advanced by the time diagnosis is made.

If it is caught early, the chances of cure are higher.

Dr Tim Veenstra and colleagues at the Biomedical Proteomics Program in Frederick believe they have found a highly effective way for detecting early ovarian tumours.

High-resolution mass spectrometry measures slight differences in the weights between normal and cancerous proteins.

This shows which cells are likely to become cancerous.

When they tested blood samples from women with and without ovarian cancer the system was 100% accurate, detecting all of the cancers and giving no false positive results in the women without cancer.

**'Huge potential'**

It also correctly classified all of the very early cancers.

Dr Veenstra said the system was still in development, so it was not yet suitable for a routine screening programme.

"However, this method promises a real step forward in detecting ovarian cancer at an early stage.

"We hope that within a few years we will be able to develop a system which will enter routine diagnostic use.

"If we can eventually use this technology for a screening method to identify more women that have early stage ovarian cancer then we need a technique that is very, very accurate.

"If it was to generate even 1% false negative or false positive you would send way too many women for unnecessary biopsies and you would also miss cases of ovarian cancer.

"We were able to discriminate all of the samples correctly," he said.

Dr Lesley Walker, director of information at Cancer Research UK, said the potential for screening using this method was huge, but he said it was still early days.

"This preliminary work is promising but a lot more needs to be validated.

"It will be important to see whether this method can distinguish between early ovarian cancer and other conditions.

"It will also be important to find out if the technique can be successfully transferred to other clinical laboratories," she said.

Currently, there is no screening programme for ovarian cancer in the UK.

Experts say this is because it is not known whether screening would save lives and the tests available are not sensitive and specific enough to screen for early-stage ovarian cancer.

However, a UK collaborative trial of ovarian cancer screening began a few years ago to look at the feasibility of introducing a programme.

Over 10 years this will look at how well ultrasound scans and measurements of blood tumour markers detect early cancer.