

Simple blood test could be used to detect breast cancer

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Researchers at The University of Western Australia are working on a quick, simple and less invasive blood-based test that can detect breast cancer progression or relapse much earlier than current methods such as mammogram, MRI or biopsy.

Dr Katie Meehan from UWA's School of Pathology and Laboratory Medicine is leading the project, which is currently recruiting participants with breast cancer.

Dr Meehan said through testing before, during and after treatment, the researchers intended to develop a new test that would improve cancer progression, monitoring and health outcomes.

"Women in rural and remote areas would benefit significantly from the new diagnostic [blood](#) test to monitor for low levels of residual or recurrent disease," Dr Meehan said.

"Currently it's costly, time-consuming and physically draining for these women to travel to Perth for regular treatment whereas the [new test](#) could be done by a routine pathology lab anywhere.

"It will enable cancer patients to find out at the earliest possible time whether their cancer had returned.

"Our research examines cancer 'exosomes' which are parts of the cancer shed into the body fluids that can drive the spread and aggressiveness of cancer. These exosomes, or biomarkers of disease, can be detected during routine blood tests and as early studies show exosome levels increase with more aggressive cancers, our research will monitor exosome levels in patients' blood during treatment.

"We hope to show that when exosomes become undetectable in the blood, this indicates the cancer is gone or if exosomes remain in the blood, this may identify a [cancer](#) at risk of returning."

Dr Meehan said developing blood-based assessments would revolutionise patient care and avoid the need for painful and invasive procedures, which was particularly relevant for women with metastatic [breast cancer](#).

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Provided by University of Western Australia

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