

New test can better predict successful IVF embryos, scientists say

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Scientists at University College Dublin have discovered a new way of measuring the potential success rate of an embryo before it is transferred back into the womb during in vitro fertilisation (IVF).

According to the findings published online in the journal [Fertility and Sterility](#), the fluid within a woman's ovaries that surrounds the egg or oocyte holds metabolic information that can improve predictions on which embryo is more likely to lead to pregnancy.

"We analysed samples of the follicular fluid surrounding the immature ovum or egg before it was retrieved for IVF," says Dr Lorraine Brennan, UCD Conway Institute, University College Dublin, Ireland.

"We identified clear metabolic differences between the follicular fluids from women who successfully achieved pregnancy as a result of IVF to the fluids from the women who did not."

"Before the test can be regularised for use during IVF, our results need to be validated across a larger cohort of women undergoing treatment, and we are hopeful that the results obtained from larger samples will support our initial findings," says Dr Brennan.

Today, approximately 32% of [IVF cycles](#) result in pregnancy, so the standard procedure involves the transfer of multiple embryos back into the womb to increase the potential success rate.

But when more than one embryo is transferred back, there is an increased chance of [multiple births](#) like twins and triplets.

There are increased health risks associated with multiple pregnancies for both mother and infants including an increased risk of miscarriages and preterm labour, leading to premature infants with admission to [neonatal intensive care](#).

"In more recent years there has been an increase in the number of single [embryo transfer](#) (SET) as an effective way of reducing potential multiple births, but the widespread acceptance of SET is limited because there is no fully accurate method of embryo assessment and selection for transfer during IVF cycles."

"At the Merrion Fertility Clinic we are committed to maintaining a high pregnancy rate while minimising [multiple pregnancies](#). This study forms part of our ongoing research into improving means of selecting the best single embryo to transfer in an IVF cycle", said Dr Mary Wingfield, Medical Director of Merrion Fertility Clinic, Dublin, Ireland.

The research involved almost 60 IVF patients. It was conducted by a team of scientists from University College Dublin, Ireland, and the Merrion [Fertility Clinic](#), Dublin (a not-for-profit clinic linked with The National Maternity Hospital in Holles Street, Dublin, Ireland).

Provided by University College Dublin

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