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The Guardian (London) - Final Edition

August 10, 2011 Wednesday

Health: Egg motion offers clue to boost **IVF success** rate  
  
**BYLINE:** Alok Jha, science correspondent  
  
**SECTION:** GUARDIAN HOME PAGES; Pg. 13  
  
**LENGTH:** 92 words

The **success of IVF** pregnancies could be significantly improved by a **technique** which scientists have developed that looks for tell-tale movements within fertilised eggs before they are implanted, right.

The method could also cut the frequency of multiple births, which increase the health risks to mothers and babies, by removing the need to implant multiple embryos.

The University of Cambridge research, published in Nature Communications yesterday, used the pulsating movements of eggs after fertilisation to predict the **success** of the later pregnancy.

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DAILY MAIL (London)

August 10, 2011 Wednesday

VIDEO TEST 'GIVES BETTER CHANCE OF **IVF SUCCESS'**  
  
**BYLINE:** BY FIONA MACRAE SCIENCE CORRESPONDENT  
  
**LENGTH:** 409 words

A video **technique** that may significantly boost a woman's odds of having a baby could soon be available.

The test would provide doctors with a quick and accurate way of choosing the strongest embryos for **IVF** treatment.

This would cut the chances of miscarriage and, it is hoped, help countless couples achieve their dream of starting a family.

It would also reduce the financial cost of treatment and the emotional heartache of repeatedly failing to become pregnant.

Professor Magdalena Zernicka-Goetz, one of the Cambridge University researchers who devised the **technique**, believes it will be particularly useful for older women.

She told the Daily Mail: 'More and more women are deciding to have their babies in their 30s and 40s.

For them it's an extremely important option but most women in the UK could benefit.'

The professor experimented on mice but she hopes the **technique** will be tried out in two leading **IVF** clinics within months.

Doctors currently use a variety of **techniques** to pick the best embryos for **IVF** treatment but they are laborious and far from perfect.

In contrast, Professor Zernicka-Goetz's **technique** takes just a couple of hours.

Using time-lapse videos and a **technique** called particle imaging velocitometry, she found that the state of the cytoplasm, the jelly-like 'white' of the egg, in the two hours after fertilisation is crucial.

Pulses of movement sweep through the cytoplasm and the faster they move, the more likely a pregnancy will result.

In tests on mice, 87.5 per cent of the fertilised eggs with the quickest pulses went on to produce baby mice, compared with just 32 per cent of those with slow pulses, the journal Nature Communications reports.

The professor said: 'That's a huge difference. It's not just two-fold, it's three-fold.'

The cytoplasm in women's eggs also pulse after fertilisation. While the professor cannot be sure that the rate will also correspond with humans, she is optimistic.

The **technique** would be carried out in the test tube, shortly after the sperm fertilises the egg, and well before the resulting embryo is implanted in the woman's womb.

She added that the emotional benefits would be 'incredible'.

'You would not have to do it over and over again but rather do it better and once and be happy at the end of it.'

Fertility expert Allan Pacey described the research as 'elegant' but said that **technique** would need to be simplified or automated if it were to be used in busy clinics.

Metro (UK)

August 10, 2011 Wednesday   
Edition 1;   
National Edition

Spot the best embryos 'to improve **IVF'**  
  
**BYLINE:** Aidan Radnedge  
  
**SECTION:** NEWS; Pg. 20  
  
**LENGTH:** 210 words

THE number of failed **IVF** treatments could be cut by a new **technique** which identifies the strongest embryos.

The non-invasive method of choosing the most robust organism to implant into a woman will ensure a better chance of a successful live birth, say researchers.

**IVF** **success** rates currently stand at about 30 per cent and a failed round of treatment is often traumatic for the potential mother.

But by studying the movement of eggs soon after fertilisation to predict survival chances Cambridge University scientists are confident **success** rates will rise.

Embryos are normally implanted after two or three days in culture. But about half of all human embryos stop developing after five days - and women are often implanted with many embryos at once, which can lead to multiple pregnancies.

'Choosing the best embryo to implant not only decreases the risks associated with multiple embryo transfers but also potentially minimises the number of rounds of **IVF** that potential mothers must go through,' said Prof Magdalena Zernicka-Goetz.

'This saves prospective parents both the trauma and cost of the **IVF** experiences,' she added.

Dr Jane Stewart, of the British Fertility Society, said the **technique** 'may ultimately enhance' the ability to select a successful embryo.