

# Women's age affects every stage of IVF

December 6 2013, by Jennifer Phillips

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A woman's age affects the outcome of every single step of IVF treatment, according to a University of Aberdeen study published today in *PLOS ONE*. This is the first study of its kind to break down failure rates for each stage of IVF for different age groups.

The duration of [fertility problems](#) prior to IVF treatment is also associated with poor outcomes at every step, however its impact on treatment is not as great as that of age.

Researchers studied data from 121,744 women from across the UK who underwent their very first cycle of IVF between 2000 and 2007 using

their own eggs. Some of the cycles had intra-cytoplasmic sperm injection (ICSI) - a procedure used in IVF where there is [male fertility](#), where the sperm is injected directly into the egg.

The study found that women embarking on ICSI treatment have a lower chance of treatment failure, but this advantage is lost at a later stage of treatment once embryos are created, suggesting that ICSI embryos do not appear to have better chances of implanting.

Professor Siladitya Bhattacharya, Professor of Reproductive Medicine at the University of Aberdeen, led the research. He said: "IVF comprises a number of key steps, each of which has to be successfully achieved before the next stage can be attempted. We found that age impacted on every single hurdle that has to be overcome during the emotional rollercoaster that is IVF."

Women's chances of having a baby following IVF start to decline by their mid-30s but from 37 onwards these go very rapidly downhill, according to the study.

Even after a pregnancy has been confirmed, women aged 38-39 were 43% more likely to have a miscarriage than women aged 18-34, while women aged 40-42 were almost twice as likely to lose the baby as 18-34-year-olds.

"This influence of age is sustained at each stage of the IVF process. There is no point during an IVF treatment - even in women who have done well in a preceding stage - when age ceases to matter. Age has the capacity to increase the risk of treatment failure even in women who respond to hormonal treatment, have eggs harvested and embryos replaced," said Professor Bhattacharya.

"Many couples want to understand how their chances of having a baby

evolve over the course of an IVF treatment. Previous work has been able to offer a global prediction of success in IVF. We hope our study provides a more accurate and dynamic way of predicting a couple's chances of [treatment failure](#) as they negotiate each step of IVF. "

Provided by University of Aberdeen

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