

# Miscarriage risk increases for women who respond poorly to IVF ovarian stimulation

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(Medical Xpress)—Women who respond to IVF treatment with low numbers of eggs are at increased risk of miscarriage, a study co-authored by University of Birmingham researchers has found.

The researchers, who looked at almost 125,000 IVF pregnancies for the study, say that their findings could help to improve counselling for couples undergoing IVF treatment through increased awareness of the risk of miscarriage for women with poor ovarian response.

The study found that the number of oocytes (eggs) retrieved following [ovarian stimulation](#) in an IVF cycle – the ovarian response - was strongly associated with the clinical miscarriage rate. The miscarriage rate for those women with a poor ovarian response - less than four oocytes retrieved – was 20%, falling to 15.5% for women with between four and nine oocytes and again to 13.8% for women with 10- to 14 [oocytes](#).

The authors suggest that the high rate of miscarriage for women who are poor responders is likely to be associated with a decline in the quality of the [eggs](#).

Professor Arri Coomarasamy, from the School of Clinical and Experimental Medicine at the University of Birmingham co-authored the study, and said: "It has always been a question to be answered, whether women with low ovarian reserve had high miscarriage risk. Our study which is largest to date has shown that women with low ovarian reserve indeed have a high risk of miscarriage. Even younger women with a low ovarian reserve have a high chance of miscarriage."

The researchers used anonymous data from the Human Fertilization and Embryology Authority's list of assisted reproductive treatment in the UK from 1991 to June 2008 to carry out the study.

**More information:** Sesh Kamal Sunkara, Yacoub Khalaf, Abha Maheshwari, Paul Seed, and Arri Coomarasamy. "Association between response to ovarian stimulation and miscarriage following IVF: an analysis of 124 351 IVF pregnancies." *Hum. Reprod.* first published online March 20, 2014 [DOI: 10.1093/humrep/deu053](https://doi.org/10.1093/humrep/deu053)

Provided by University of Birmingham

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