

Hope for men with nonobstructive infertility

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It has been thought that men with non-obstructive azoospermia (NOA), a lack of sperm in the semen not caused by an obstruction within the reproductive system, are poor candidates for IVF. Now, researchers writing in the open access journal *Reproductive Biology and Endocrinology* have shown that sperm from men with NOA and obstructive azoospermia (OA) are equally capable of producing embryos.

Nina Desai led a team of researchers from the Cleveland Clinic Foundation who carried out an in-depth analysis of intracytoplasmic sperm injection (ICSI) using frozen sperm taken from the testes of 44 men with OA and 17 [men](#) with NOA.

They found that, although fertilization rates were slightly improved in the OA group, there were no significant differences in implantation rates or clinical [pregnancy rates](#). According to Desai, "The high implantation rate per embryo transferred and the resultant live births attest to the quality of embryos being produced with both types of surgically retrieved sperm".

In addition to evaluating the feasibility of NOA sperm, the researchers were also able to study paternal effect on genomic activation. One of the earliest morphologic indicators of embryonic genome activation is increased cell-to-cell adherence at the 8-cell stage, leading to compaction. Desai said, "Interestingly, we found that embryonic compaction was similar in all three groups. These results suggest that zygotic activation is independent of [sperm](#) origin and type of

azoospermia".

More information: Paternal effect on genomic activation, clinical pregnancy and live birth rate after ICSI with cryopreserved epididymal versus testicular spermatozoa, Nina Desai, Faten AbdelHafez, Edmund Sabanegh and James Goldfarb, *Reproductive Biology and Endocrinology* (in press), www.rbej.com/

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