

New IVF method reduces bad DNA in lab embryos

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AFP PARIS (AFP-Jiji) — Scientists recently unveiled an improved method of transferring DNA between human egg cells, a technique that aims to create embryos free of their mother’s genetic defects.

Refinements to an existing method known as “pronuclear transfer,” sometimes called three-person IVF, greatly reduced the amount of faulty, disease-causing DNA in the lab-produced embryos, they reported in the journal *Nature*.

The method involves extracting healthy DNA of the mother and father from the nucleus of a fertilized egg. Each egg cell also contains a different type of DNA residing in tiny cell structures called mitochondria.

Sometimes the mitochondrial DNA undergo mutations which can be transmitted to offspring and can cause an array of disorders.

The nuclear DNA is transferred into a donated egg cell — with healthy mitochondrial DNA — from which the nucleus has been removed.

“[We] are optimistic that the technique we have developed will offer affected women the possibility of reducing the risk of transmitting mitochondrial DNA disease to their children,” said study coauthor Mary Herbert of the Wellcome Trust Centre for Mitochondrial Research in England.

Commentators said the study marked significant progress toward a safer form of in vitro fertilization (IVF) for women who carry disease-causing mitochondrial mutations.

Estimates vary widely, but about one in 5,000 children is thought to be born with these mutations which can affect the muscles, eye, brain or heart.

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