Frozen embryos more successful for conceiving during IVF

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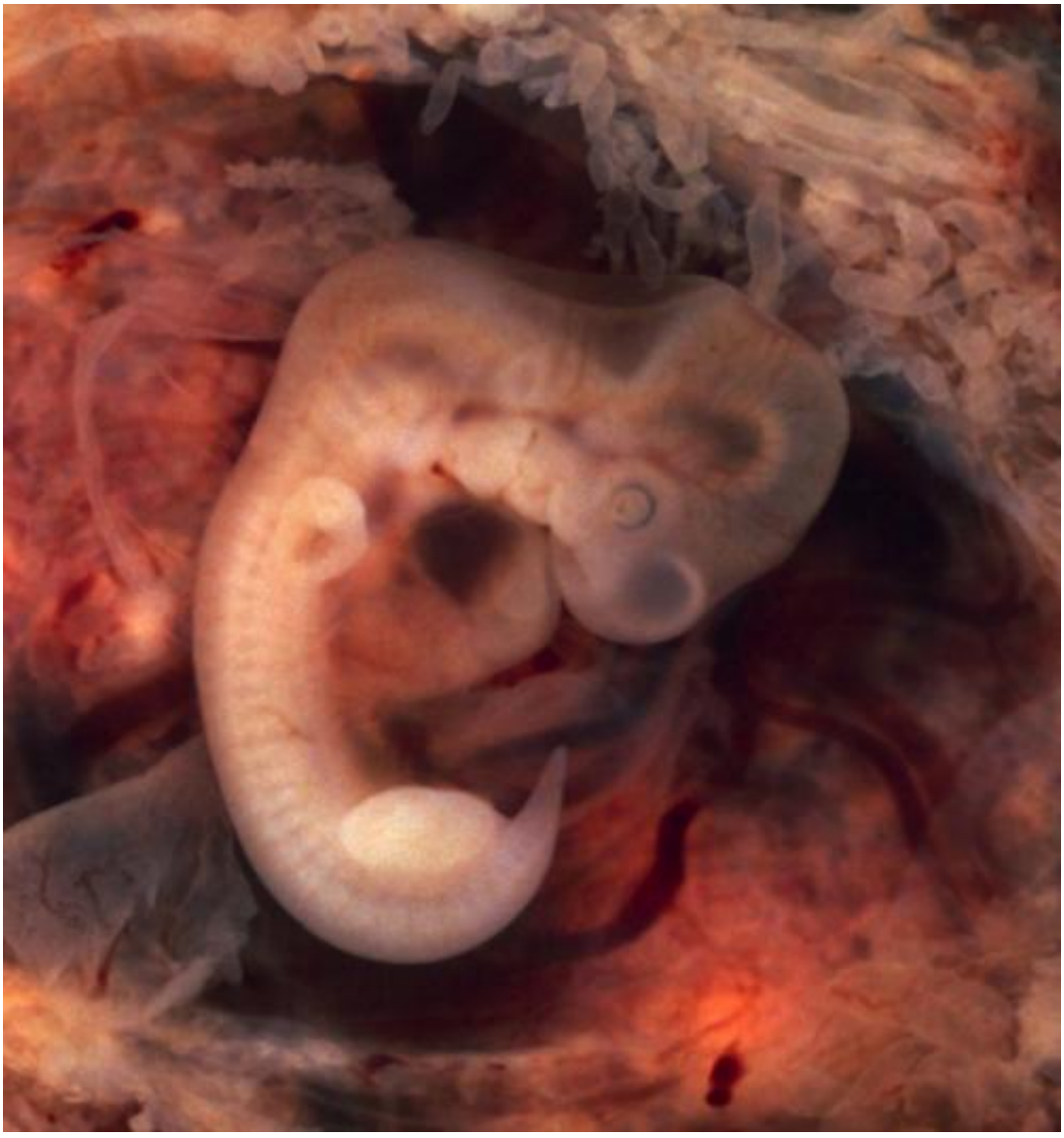

Human Embryo. Credit: Ed Uthman, MD/Wikipedia

A new study carried out by a research team at The University of Western Australia and Fertility Specialists of Western Australia has found that women undergoing IVF who have had embryos fail to implant have more success using frozen ones than fresh ones.

Approximately one in 10 women who undergo IVF experience recurrent unsuccessful embryo implantation, called Recurrent Implantation Failure (RIF). Co-author Professor Roger Hart from UWA's Division of Obstetrics and Gynaecology, and Fertility Specialists of Western Australia, said the researchers studied 84 patients who underwent 140 IVF cycles, to identify success rates by comparing the two different types of transfers (frozen versus fresh) with recurring unsuccessful cycles.

"We found the birth rate for frozen and thawed embryos was 39 per cent, compared to 20 per cent for fresh embryos," Professor Hart said.

The researchers excluded any correctable factors present within the woman that may have limited the embryo implanting and then undertook preimplantation genetic screening of embryos on day three to ensure there were no abnormalities.

"We examined the chromosomal status of the embryo, as unfortunately the most common reason an embryo does not implant is because it is chromosomally abnormal," Professor Hart said.

"The study results demonstrate that a frozen embryo implantation is more successful than transferring the embryo straight after the biopsy in a fresh IVF cycle, as the environment within the uterus is more 'normal' in a subsequent natural cycle, than during an IVF cycle where the hormone levels are often very high."

Professor Hart said there were also other factors that impacted the

success of the cycle.

"The success of the transfer was much less if the woman was significantly overweight, if there were a lower number of cells present within the embryo at the time of biopsy and if the pregnancy hormone level was lower at the time of the pregnancy test," he said.

"Women under the age of 35 also have higher success rates."

The study also showed that compared to unbiopsied embryos, biopsing an embryo after 3 days of growth could impair growth, which suggested the more advanced an embryo was at the time of biopsy, the more it would withstand the biopsy process.

"One of the things to draw from this study is that some women should opt for a frozen embryo transfer over a fresh IVF cycle, which may help improve the implantation potential of the embryo," Professor Hart said.

The research was published today in *Aust N Z J Obstet Gynaecol*.

Provided by University of Western Australia