

# Factors Affecting Success in an Embryo Cryopreservation Programme

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## Abstract

*Embryo cryopreservation is a vital part of any assisted conception programme. We analysed our experience with respect to various clinical factors which may influence success and help modify our own practice. Factors studied were endometrial preparation, number of embryos transferred, woman's age at embryo freezing and endometrial thickness. The 212 cycles analysed represented all our frozen embryo-transfers from 1994 to 1996. Four cycles were excluded because of incomplete data. Statistical analysis was done with Student's t-test, Fisher's exact test and chi-square test for trend.*

*The clinical pregnancy rate rose yearly and it was 12.3% per transfer in 1996. The most important clinical factor appeared to be the type of endometrial preparation. Natural cycles resulted in a pregnancy rate of 17.7%, almost twice hormone-replacement cycles. When transfer was on days 14 to 16 of the natural cycle, the pregnancy rate reached 33%. Other factors that were suggestive of success were younger age at embryo freezing, transferring at least 2 embryos and endometrium thickness  $\geq 11$ mm. The natural cycle gave the best pregnancy rate in our hands and is our method of choice for ovulatory women with normal cycle lengths. For all other women, hormonal preparation is needed but our protocols need refinement. Our initial performance is encouraging and embryo cryopreservation has certainly enhanced our overall success rate.*

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