

Embryo Transfer

B.Sc. Part II, Paper IV, Group A, Reproductive Biology

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Introduction

- **Embryo transfer** is a simple procedure that follows in vitro fertilization (IVF) and is often considered the simplest and final step of the in vitro fertilization process. The objective of embryo transfer is to facilitate conception following fertilization from the in vitro fertilization procedure.

Time of embryo transfer

- An embryo transfer occurs between third to sixth day after the egg retrieval. The eggs are transferred to the women's uterus conventionally, when the embryos are between 2 to 8 cell stage. Some clinics transfer the embryo in blastocyst stage. This occurs around day five.

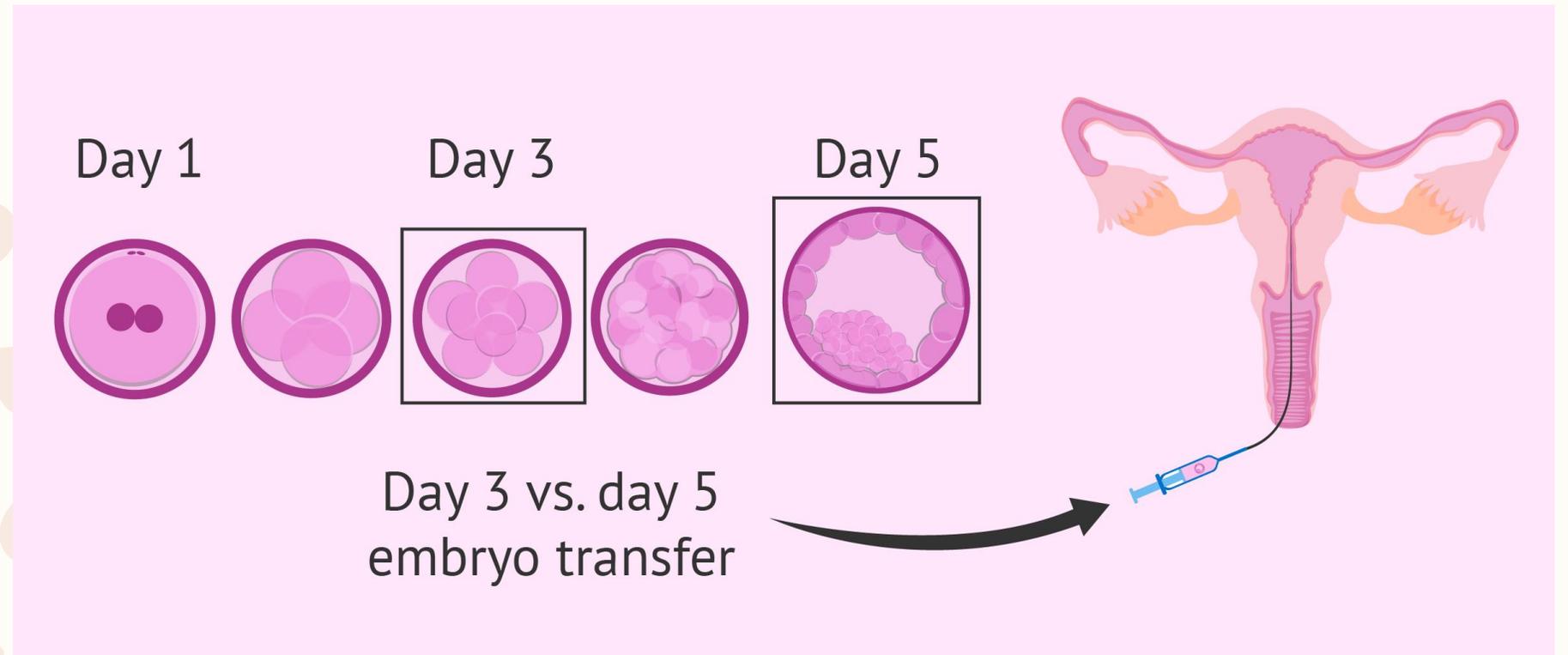
Procedure of embryo transfer

- After the fertilization of egg by sperm in a dish the egg become an embryo.
- The embryo is kept into a special incubator where the conditions for growth and development are perfect.
- A mixture of amino acid is used to prepare perfect growing conditions to nurture the embryo.
- The embryo transfer occurs typically on the third or fifth day of embryo growth.
- On the third day of embryo growth the best embryos forms 8 cells.
- Typically two to three embryos are transferred on day three and remaining embryos cultured to day five or six for possible embryo cryopreservation.

Process...

- Blastocyst transfer-on the fifth day of embryo growth, blastocyst embryo develops
- Blastocyst embryos are embryos containing 100 to 150 cells with a cystic inner cavity called the blastocoel.
- Typically one or two blastocyst embryos are transferred to maintain high pregnancy rate.
- Embryo transfer is done without the need of anaesthesia.
- An ultrasound may be used for guiding the transfer.
- The embryos suspended in a drop of culture media are drawn into a transfer catheter, a long thin sterile tube with a syringe on one end.
- The physician gently guides the tip of the transfer catheter through the cervix and places the fluid containing the embryos into the uterine cavity.

Embryo transfer



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- No. of embryos transferred normally depends on various factors specially age factor.
 - Generally not more than 2 to 3 embryos are transferred per cycle. This helps to minimize multiple pregnancy.
 - However , in women above the age of 40 years higher no. of embryo may be transferred.
 - After embryo transfer luteal phase support is given by administration of progesterone for about two weeks.
 - Diagnosis of pregnancy can be assessed by estimating human chorionic gonadotrophin (hCG).
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