
Blastocyst Culture

Useful telephone number

Central Appointments

6294-4050

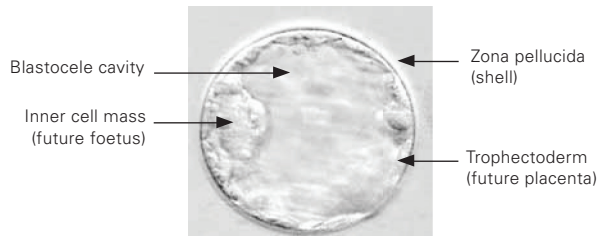


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What is a blastocyst?

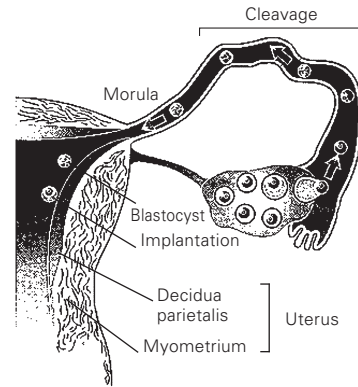


A blastocyst is an advanced embryo which has developed for about five to six days after fertilisation. A blastocyst (picture above) has two different cell types and a central cavity. The surface cells are called trophoblast and it will become the placenta. The inner cells, called the inner cell mass, will become the foetus. A healthy blastocyst should begin to hatch from the outer shell, called zona pellucida, by the end of the sixth day. Within 24 hours after hatching, it will begin to implant into the lining of the mother's womb.



The normal events in normal pregnancy

In spontaneous pregnancy, fertilisation takes place in the fallopian tube. The early embryo forms and develops in the fallopian tube before it moves into the uterus (womb) about five days after ovulation. Then the blastocyst hatches in the uterus and implants in its lining.



Conventional day 2/3 embryo transfer in IVF

In conventional IVF programme, embryos are transferred into the uterus when they are two to three days old. Blastocyst culture is only offered to selected patients when it is felt that extending the culture will benefit them.

With blastocyst transfer (the benefits)

Extending the growth of the embryos to the blastocyst stage also enables us to select the better embryos to be replaced into the womb. Blastocyst transfer is thus associated with a higher chance of pregnancy (50% to 60%). Poorer quality embryos will thus not be transferred nor frozen as they may not survive the culture period.

With blastocyst transfer, we can transfer fewer embryos and still achieve excellent pregnancy rates. Hence, we can reduce the chances of triplet and twin pregnancies.

The possible drawback of blastocyst transfer

Although the culture medium for blastocyst development has been refined, there are still about 10% to 20% of couples whose embryos will not develop to the blastocyst stage. In these couples, there are no blastocysts to transfer despite having a good number of eggs (oocytes) available. There could be an abnormality in the embryos, which will account for the failure to develop. Hence, choosing to undergo blastocyst culture has a risk of failure to have any blastocyst transferred.