

In-Cycle

# Blastocyst Culture and Transfer

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## What You Need to Know



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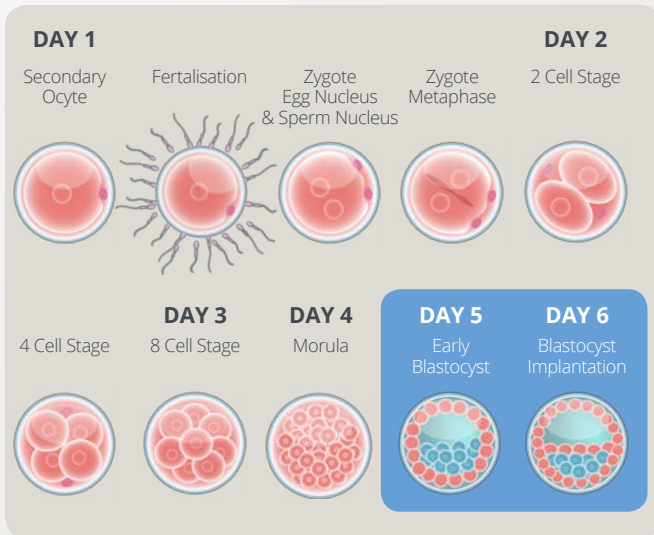
# What is a Blastocyst?

A blastocyst is an embryo that consists of around 100 to 150 cells. It is at the blastocyst stage of development (approx. five days after fertilisation) that an embryo would normally move out of the fallopian tube and into the uterus. Once in the uterus, the blastocyst starts to attach to the uterine lining in a process known as implantation.

## Blastocyst Transfer

In Vitro Fertilisation (IVF) embryos can be transferred on the second or third day following egg retrieval when the embryo is at the four- to eight-cell stage of development. The embryos must continue to grow for two or three more days within the laboratory to reach the blastocyst stage, before they are ready for transfer to the uterus.

The diagram below shows the different stages of embryo development:



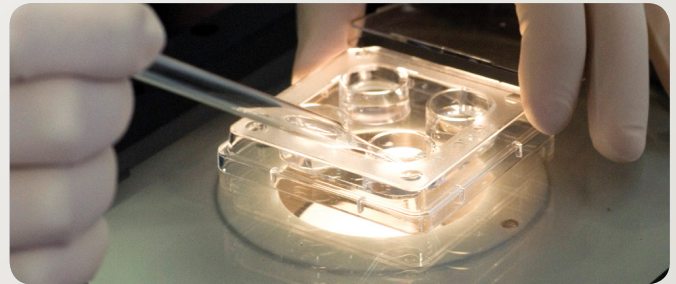
Recent advances in IVF laboratory methods and culture media have allowed for the successful culture of embryos to the blastocyst stage. Blastocysts may have a better potential to implant into the uterine wall than earlier stage embryos. Many embryos stop growing at the four- to eight-cell stage, probably because of an inherent problem. Any genetically abnormal embryos usually fail to develop past the eight-cell stage.

Therefore, fewer embryos will have the ability to grow to the blastocyst stage.

Potentially, extending culture to the blastocyst stage allows selection and transfer of embryos that are more likely to implant. Those that successfully reach the blastocyst stage are probably more developmentally competent than earlier stage embryos. As well, their stage of development when replaced into the uterus is very similar to what it would be in a natural conception cycle.

## What are the pros and cons of Blastocyst transfer?

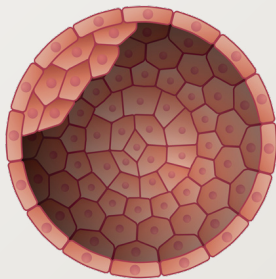
The advantage of attempting to grow embryos to the blastocyst stage is that they are potentially more likely to be genetically normal and should have a greater chance of implantation because the stage of development matches the uterine environment. The extended culture to blastocyst stage has identified the embryos most able to implant following a single embryo transfer.



The disadvantage of attempting to grow embryos to the blastocyst stage is that fewer embryos will 'survive' or grow to this stage (probably about 30-50% of the embryos). There is a possibility (up to 10%) that none of the embryos will reach the blastocyst stage and therefore, no embryos will be available for transfer. The availability of 'extra' embryos for freezing is also significantly reduced. There is also a greater risk of having twins if two blastocysts are transferred. Therefore you need to discuss how many embryos to safely transfer with your specialist.

## Who is eligible for Blastocyst transfer?

Blastocyst culture may not be recommended for every couple. Couples who have had repeated, unsuccessful attempts with IVF or Intracytoplasmic Sperm Injection (ICSI) (despite having many good-quality embryos in appearance replaced to the uterus on day two or three after egg retrieval) may be offered blastocyst culture as an alternative treatment. Women 40 years of age or older may also consider blastocyst transfer.



Early Blastocyst

## Where to Now?

### I want more information

- Contact our Fertility Advice Team

### I have Blastocyst as part of my treatment plan

- Book an appointment with our clinic to speak to a scientist
- Call one of our friendly patient services staff for information regarding the cost associated with this procedure

## Contact Us

**Call** 1300 354 354  
**Email** [contactus@cityfertility.com.au](mailto:contactus@cityfertility.com.au)  
**Visit** [cityfertility.com.au](http://cityfertility.com.au)



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