



GYNAECOLOGY AND FERTILITY CENTRE

PATIENT INFORMATION

## Blastocyst transfer

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## Blastocyst transfer treatment

During a normal IVF cycle, embryos are transferred on the second or third day after egg collection. At this time the embryo is at the two to eight cell stage of development. Because, at this early stage, it is extremely difficult for the embryologist to accurately select which embryos will have the best chance of progressing to pregnancy, the best two or three are chosen in the hope that at least one will succeed. However, if there are enough good quality embryos on day two or three, it is possible to grow them for longer in the laboratory to the blastocyst stage, which is reached five days after egg collection. By this time the embryologist has a much clearer idea of which blastocyst has the best growth potential and chance of survival, which in turn leads to a better chance of pregnancy.

### What is a blastocyst?

A blastocyst is a highly developed embryo. It has divided many times into a large number of cells and is nearly ready to attach to the walls of the womb.

During its development an embryo is contained within a protective shell (zona pellucida). The embryo hatches or breaks out of its shell on the fifth or sixth day to enable it to implant. Just prior to hatching, the embryo is known as a blastocyst.

At the blastocyst stage, the embryo is made up of two very different types of cell and a central fluid filled cavity. Its appearance is very different to its earlier stages of development. The surface cells lining the inside of the shell will become the placenta and the inner cells will become the foetus. A healthy blastocyst will hatch by the end of day six and begin to implant within 24 hours.

### Who can benefit from a blastocyst transfer?

Although not all patients will benefit from blastocyst transfer, it is sometimes offered to:

- Patients who have had three or more failed cycles of IVF despite good embryo quality at day two or three
- Those at risk of ovarian hyperstimulation syndrome (OHSS)
- Younger women, who have an increased risk of multiple pregnancy
- Older patients with a large number of embryos but a reduced chance of becoming pregnant due to their age

### What are the risks of treatment?

- On average, only one third of all embryos developed in the laboratory on day two will go on to develop into blastocysts. And, in around 10% of IVF cases, no blastocysts develop
- Blastocyst transfer is a relatively new technique and the long term effects to children born as a result are not known. However, there is currently no evidence to suggest that it results in an increased risk to the pregnancy or to the health of children born as a result of the procedure
- Please be aware there is an extra cost for blastocyst culture and transfer

***The medical information in this leaflet is provided as an educational resource only. It is not intended to replace the advice of your GP or medical team and should not be used or relied upon for any diagnostic or treatment purposes. The information has been prepared by Dr Carole Gilling-Smith, Consultant Gynaecologist and Medical Director of the Agora Gynaecology and Fertility Centre. It was last updated in August 2014.***