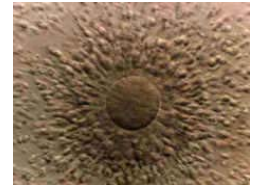


Embryo Transfer and Selection

In the early stages of development, the quality of the embryos is only an indication of their true developmental potential. A number of these early embryos will not be healthy enough to continue developing either inside or outside the body. The difficulty however, is in knowing at the early stage of development which embryos are most likely to develop normally and have the best chance of forming a pregnancy. We therefore have a flexible approach to the day of embryo transfer depending on the number of embryos available and their quality.

Day 0

This is the day of your egg collection.



Day 1

The day after your egg collection we will phone you to tell you how many eggs have fertilised. We will not be able to tell you anything about the quality of the embryos at this stage.



Day 2

At this stage the embryos should have started to divide and will have around 2 to 4 cells. If you only have 1 or 2 embryos then we will normally transfer your embryos at this stage. Around 15% of embryo transfers are done on Day 2.



Day 3

If you have more than 2 embryos it will help the embryologist to select the strongest ones by culturing them on to Day 3. The embryos are normally 6 to 8 cells at this time, and any good quality spare embryos may cultured to Day 5 to assess for freezing. About 40% of embryo transfers are done on Day 3.



Day 5 (also called Blastocyst Transfer)

A **blastocyst** is the term used for the stage of development that an embryo reaches just before it implants in to the lining of the uterus. Approximately 45% of embryo transfers are done at the blastocyst stage.



If you have 5 or more embryos then you will be considered for a Day 5 blastocyst transfer. The embryologist will examine your embryos on Day 3 and decide whether this would be of benefit to you. The advantage of culturing the embryos to Day 5 is that it will further improve the selection of the healthiest embryos and therefore increase your chances of becoming pregnant. The disadvantage is that there is a very small chance that none of the embryos reach the blastocyst stage and there is nothing to transfer. However, if you do not get any blastocysts to transfer then it is unlikely that you would have got pregnant on this cycle even if we had replaced the embryos at an earlier stage.

How Many Embryos Will Be Transferred?

Patients under 40 years old, or those receiving donor oocytes/embryos may have either one or two embryos replaced depending on the factors discussed below.

Multiple Pregnancy

For some couples, replacing two embryos may improve the chances of pregnancy but could also result in twins. The idea of a completing your family all in one go by having twins may sound an attractive idea, particularly after having undergone fertility treatment. However, whilst many twins are born healthy and normal, sadly this is not always the case. The risks associated with multiple pregnancy and birth relate to both the mother and babies.

a) Risks to the mother

Mothers pregnant with twins are more likely to experience health problems such as hypertension, pre-eclampsia and gestational diabetes than mothers pregnant with singletons. Tragically, they are also twice as likely to die during pregnancy or birth.

b) Risks to the babies

At least half of all twins are born prematurely and several weeks earlier than singleton babies. As a result they generally weigh less and are more likely to experience serious health problems including cerebral palsy. Twins are also up to six times more likely to die during birth or in the first year of life than a singleton baby.

Single Embryo Transfer

Determining who is most at risk of a multiple pregnancy is a difficult process but there are some factors that will increase your chance of achieving a pregnancy and of that pregnancy being multiple. The first and most important factor is female age - the younger you are the better your chance of conception. However, that is not the whole story as it also depends on how your ovaries respond to the stimulatory drugs we give you; the number of eggs you produce: how many of them fertilize; and the quality of these embryos.

- a) If you are **under the age of 38** and have at least **1 good quality blastocyst** on Day 5, then you are at a high risk of having a multiple pregnancy. We will therefore strongly advise you to have only a single blastocyst transferred. We believe this is the best and safest way to help you achieve a pregnancy and for that pregnancy to result in a healthy baby.
- b) If you have a funded cycle then one of the conditions of funding may be that you only have a single embryo replaced. This will depend on which Health Authority is paying for your treatment.
- c) Some women may have additional medical problems that would make carrying twins particularly dangerous. (eg kidney transplant).

Other patients outside these criteria may also request single embryo transfer and they will be advised on an individual basis.

For more information regarding the risks of multiple pregnancy log onto www.oneatime.org.uk