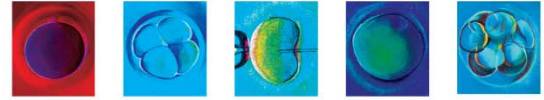


Louis Weckstein, MD  
Susan Willman, MD  
Mary Hinckley, MD  
Deborah Wachs, MD  
Carmelo Sgarlata, MD  
Evan Rosenbluth, MD  
Kristen Ivani, PhD



# FERTILITY FACT SHEET

San Ramon / Orinda / San Jose

## BLASTOCYST EMBRYO TRANSFER

There is now abundant evidence that transferring Blastocyst (the embryonic stage just prior to hatching and implantation) embryos into the uterus 5 to 6 days after egg retrieval results in higher implantation rates per embryo transferred compared to embryos transferred after 3 days of in vitro development. Allowing the embryos to develop an additional 2 to 3 days in the laboratory gives us more discriminatory power to select the embryos with the highest developmental potential. There is good evidence in the medical literature that Embryos that develop normally to Blastocyst are less likely to be genetically abnormal. In addition, replacing the embryos 5 to 6 days after fertilization allows the embryos to arrive in the uterus at a more physiologic time (with natural conception the embryo does not implant until about 6 days after fertilization).

Blastocyst transfer may be of particular benefit for:

1. Patients who develop many good quality embryos.
2. Patient's who wish to limit their risk of multiple pregnancy.
3. Patient's with past failed pregnancy with day 3 Embryo transfer.
4. Patient's with poor quality Embryos (less than 5 cell) on Day 3.

Blastocyst Embryo transfer is performed either on day 5 or 6 following egg retrieval. A possible risk with attempting a Blastocyst transfer is that none of the embryos may develop to the Blastocyst stage (an average of  $\geq 35\%$  of fertilized eggs develop to the Blastocyst stage); therefore, there would be no embryos to transfer. It is generally felt that if no embryos develop to the Blastocyst stage in the laboratory that they would most likely not have become a pregnancy if they were replaced into the uterus at an earlier time. Blastocyst transfers will be routinely anticipated in those patients having 3 – 4 or more good quality embryos on the third day after egg retrieval. Less than 5% of patients in this group will not have any embryos make it to the Blastocyst stage.

Candidates for Blastocyst transfer will be scheduled for an embryo transfer 5 days after their egg retrieval. Because going to the Blastocyst stage selects the best embryos, there will typically be fewer embryos available for freezing. Currently in our center, we only freeze embryos that make it to the Blastocyst stage. These Frozen Blastocyst embryos have a higher pregnancy rate in frozen embryo transfers than embryos that in the past were frozen after 3 days of development.

We feel that Blastocyst transfer is a good option to optimize pregnancy rates, while reducing the risk of multiple pregnancies. Please remember that almost 50% of patients in our center have a day 3 embryo transfer with very good success.