

The Center for Advanced Reproductive Services

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Elective Single Embryo Transfer

By Claudio Benadiva, MD, HCLD

The issue of multiple births resulting from fertility treatments has been all over the news, particularly after the recent birth of octuplets to a California woman. Aside from the ethical issues raised by this event, more important health related concerns have highlighted a growing trend to perform elective single embryo transfers (SET).

Since the science of IVF is not perfect, it has been standard practice to transfer more than one embryo to improve success rates. For more than a decade, voluntary guidelines from the American Society for Reproductive Medicine on the number of embryos to be transferred have been adopted by most quality reproductive endocrinologist. Application of these guidelines has been largely responsible for the decline in high order IVF multiples in the United States, however the twin rate still remains problematic.

Multiple births carry a number of risks, including prematurity, low birth weight, learning disabilities, and developmental problems for the infants, and preeclampsia, gestational diabetes, and cesarean section for the mothers. And of course this also increases the costs for the delivery and subsequent hospital stay. Some estimates for the recent octuplets have placed the hospital costs alone between \$1.5 and \$3 million.

Today, with better techniques for growing and selecting the best quality embryos, transferring one embryo instead of two or more to minimize the risk of multiple births is a viable option for some infertile women undergoing IVF without compromising their chance of a successful pregnancy. Our Center's goal is to continue to improve outcomes for all IVF patients, and to achieve the highest live birth from single embryo

transfers, when clinically indicated. Because patients typically want to maximize their chances of success, it is very important to be able to demonstrate that pregnancy rates with SET are as good as those resulting from transferring more embryos. The following are our results (2005-2010) after transferring a single blastocyst for patients according to their age group:

Age Group:	<35	35-37	38-40
Clinical Pregnancies	65% (84/130)	73% (32/44)	75% (3/4)
Ongoing/Delivered Pregnancies	54% (75/130)	66% (29/44)	50% (2/4)

In conclusion, SET is a viable and reliable option for many women, depending on their age and other fertility related issues. Women/couples who don't want to risk multiple pregnancies or who have a preexisting medical condition for which a multiple pregnancy would not be safe, should consider single-embryo transfer. The most important factor in the decision to proceed with elective single-embryo transfer may be a favorable reproductive profile. Patients are advised to consult with their physician about SET and decide if it makes sense in their particular circumstances.

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