Embryo donation and the Victoria Fertility Center

Introduction

In vitro fertilization has been a successful technology since the early 1980s. More importantly over the past few years the technology for cryopreserving (Freezing) extra embryos left over after a fresh IVF cycle, has improved dramatically. The new technology called vitrification is so successful that almost all embryos frozen with this technology will survive the thaw and may result in implantation rates (pregnancy rates) very similar to a fresh embryo transfer.

Embryos frozen with the older technology, referred to as "slow freezing" still do well, However the survival rate after freezing is not as good as with the newer technology.

As a result of this many couples who have had a successful in vitro fertilization have surplus embryos frozen in storage. Once our patients' have completed their families, they need to decide what to do with their stored embryos. They have the choice to keep them in storage, to donate them for teaching and instruction purposes at the Victoria Fertility Center, donate them to research, ethically dispose of them, or to consider donating them.

Who is eligible for enrollment into the Victoria Fertility Centre embryo donation program ? (ie. Who is eligible to donate or receive donated embryos ?)

<u>The following are some of these circumstances where donated embryos may be necessary for a woman/couple to have an opportunity to achieve a pregnancy</u>

1. the recipient has no viable eggs
2. The recipients (male or female) have a family history of a genetic disorder and choose to avoid disease transmission by rather using donated embryos
3. The recipients require both donor eggs and sperm
4. Both male and female recipients should be preferably under the age of 50 years at the time of embryo transfer. (the final decision will rest with the VFC)

<u>Who is eligible to donate embryos ?</u>

1. Women/couples who have completed their infertility treatment and have surplus cryopreserved embryos they wish to donate.
2. The egg donor should preferably be under the age of 37 years
3. There should be no family history of genetic diseases that may be inherited
4. Women/couples who are prepared to relinquish any claim to the child/children born as a result of the air embryo donation. It should be remembered that the woman that carries and delivers a child is regarded as the legal parent
5. Women\couples who agree to undergo any necessary medical testing to ensure they are free of infectious diseases that could be potentially transmitted by the transfer of the embryos

6. Women\couples who agree to the necessary psychological counseling/assessments that are required through the Victoria Fertility Center. This may be either through the Choices Adoption Agency or in the case where the donating person/persons are donating to an identified woman/.couple – through one of the counselors that are affiliated with the VFC.

Risks and benefits to embryo donors

These are mainly psychological. This is why counseling is very important prior to proceeding. The donating persons must be aware that the psychological impact of donating may go far beyond "today's decision". Donating persons (donors) must be completely comfortable with the possibility that if the cycle is successful their genetic children will be raised by another couple – and their children will have full siblings being raised by another couple.
It is possible to choose anonymous donation, although our emphasis in today's world of assisted reproduction is be honest and hold no secrets. Donors need to discuss these issues with our counselors so their opinions can be considered.
At least, donor children – at the age of majority (usually considered to be 18 years) are entitled to receive non identifying information about their genetic parents and siblings – with identifying information only provided with the consent of all parties. There are excellent books/resources available as aids to inform children of their origins.

Legal issues

Both donors and recipients are entitled to obtain legal advice prior to participating in the Embryo donation program at VFC.
At the present time the woman who gives birth to a child is regarded as the legal mother and her name goes on the birth certificate. Similarly if a male partner is living with that woman at the time of the birth his name may be placed on the birth certificate as the legal father.

There is currently no case law directly applying to embryo donation. There is however a case before the courts at the moment (Olivia Pratten vs BC) which may have implications in the future regarding 3rd party parenting (which includes egg, sperm and embryo donors) In other words the law is subject to change – and VFC in no way offers any form of legal opinion on these matters, and all parties are advised to consult a lawyer if specific questions arise. VFC can direct you to lawyers with expertise in this area. It is highly complicated and our patients are urged to consult a lawyer with knowledge and expertise in this field.

Expectations.

It is important for both donors and recipients to be well informed of the expectations for a successful pregnancy using previously frozen embryos.

The chances of success are affected by the following factors:

1. The technology used to freeze the embryos. The older technology referred to as 'Slow freezing" and used at VFC until December 31st 2009, is not as predictable as the newer technology known as "vitrification". Slower frozen embryos have a lower recovery rate. In other words with Slow Freezing less embryos survive the thawing (referred to as "warming") than Vitrified embryos. That being said – we have hundreds of babies born following embryos previously slow frozen. With Vitrification it is very unusual for any embryo not to survive.
2. The age of the egg donor at the time the embryos were frozen. The older the egg donor, the lower the chances of pregnancy and the higher the chance of miscarriage. VFC will provide you with statistics in this regard.
3. The stage at which the embryos were frozen. Usually at VFC embryos are frozen at either the cleavage stage (day 3 - when the embryos are usually between 6 and 8 cells) or on day 5 post fertilization at the morula or blastocyst stage – at which time the embyos are at the 200+ cell stage. Generally speaking, if embryos make it to the blastocyst stage they have more potential and the pregnancy rates are higher. However – with slow freezing less blastocysts will survive the thaw than day 3 cleavage stage embryos. All this is taken in to consideration when planning the transfer.
4. Not every pregnancy will result in a live birth. Whether a woman conceives naturally or with technology – there is a risk of miscarriage. Generally speaking the risk of miscarriage is related to the age of the egg donor at the time the embryos were frozen.
5. Uterine factors. The recipient mother should have a healthy uterus and herself be in good health. Fibroids, polyps, poor endometrial development – all may effect the chances for a successful pregnancy.

Clinical evaluation of the female recipient

1. blood tests
2. Clinical examination and pelvic ultrasound to check the uterus
3. A sonohysterogram (a procedure done at VFC to check the inside of the uterus. This done by injecting a small amount of fluid in to the uterus and then doing an ultrasound.)

Embryo transfer.
In order for the embryos to implant in wall of the uterus (the endometrium often referred to as the 'lining") it needs to be perfectly prepared. This is done using the hormones estrogen and progesterone. There are a number of different ways to do this, and a specific protocol may be chosen based on a woman's medical history.

Usually the recipient will be asked to do the following..........
1. Call VFC when she starts her period
2. On day 2 or 3 of her period start taking estrogen (Estrace) tablets orally
3. on day 14 of her cycle – have a blood test to measure her hormone levels and an ultrasound to measure the uterine lining
4. When the lining is ready start taking a hormone called Progesterone (prometrium) vaginally and orally (in addition to the estrace)
5. Plan the embryo transfer 3 – 5 days later.

Risks
The are risks of multiple pregnancy (for both the mother and babies) if more than one embryo is transferred. The recipient should read the information provided on multiple pregnancies. There are risks to being pregnant – which every intended mother should be aware of, and these include but are not limited to the following……ectopic pregnancy, miscarriage, infection, premature birth, anemia, high blood pressure, gestational diabetes, C section, post partum depression, deep vein thrombosis and so on…..

Pregnancy
12 days after embryo transfer the recipient will be asked to have a blood pregnancy test which is done at a laboratory closest to you. If the pregnancy test is negative, she will be advised to STOP all medications and we will arrange to speak with her further at a designated time. It is always upsetting to have a negative result, and VFC will normally give some time before discussing next steps.
If the pregnancy test is positive – she will be asked to repeat the pregnancy test 2 – 3 days later, to make sure that the hCG levels are rising appropriately. We expect the hCG levels to hopefully double every 2 days during the first week or two. If the levels do not double – it may suggest a complication such as ectopic pregnancy, or an increased risk of miscarriage.
She will then be advised when to have the first prenatal first U/S – which is usually done at gestational age 7 weeks (which is 5 weeks from the time of embryo transfer) Usually speaking we will ask her to continue the estrogen and progesterone until 12 weeks pregnancy.

PLEASE TAKE TIME TO READ THIS DOCUMENT CAREFULLY. YOU ARE RESPONSIBLE FOR UNDERSTANDING THESE MATERIALS BEFORE YOU SIGN THE CONSENT FORMS. IF THERE IS ANYTHING YOU DO NOT UNDERSTAND YOU SHOULD ASK SOMEONE AT VFC OR ONE OF THE COUNSELORS YOU HAVE SPOKEN TO.

Costs are to the recipients only…….

Initial Consultation with VFC **(if you have a referral from your family physician this cost is covered by the medical services plan (MSP) in BC – although this requires that you are seen in person, and it will not cover the cost if the consultation is by phone)**	**$300.00**
Blood tests, ultrasounds etc	**In BC this will be covered by the MSP – for non BC and non Canadians this may vary**
Costs of counseling **1. If receiving embryos from a known donor** **2. If receiving embryos from a donor arranged by VFC – the counseling is arranged through Choices adoption agency and requires a home study and allows you to be on track for a regular adoption or embryo donation.**	 **$300.00** **$2500.00**
For the clinical process of warming and transferring embryos. **For the first transfer** **If unsuccessful – for the second attempt** **If unsuccessful for the third attempt** **If the embryos do not survive the warming process, further embryos will be assigned, and once the process of informing the genetic parents and recipients is taken care of – for the next transfer there will be <u>no charge</u>.**	 **$3000.00** **$1000.00** **$1000.00**
Storage fees **If the embryo transfer results in a pregnancy (whether this results in a miscarriage or live birth) the recipients will immediately assume annual embryo storage fees for any left over embryos from the embryos available** **Storage per annum (or part thereof)**	**$200.00 per year**
If the embryo transfer results in a live birth and there are extra embryos being stored, a subsequent embryo transfer fee will apply	**$1000.00**