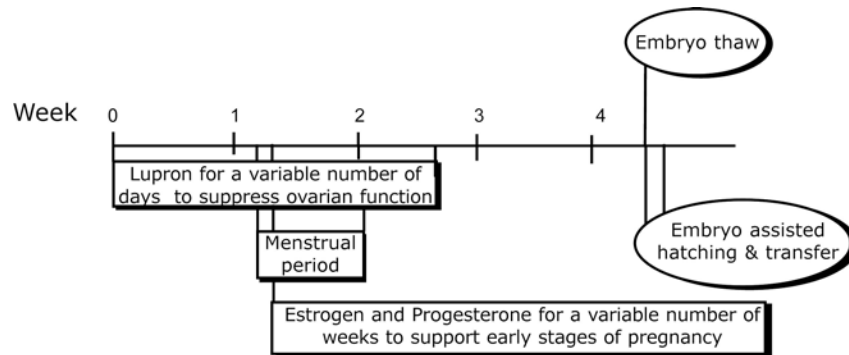


## Cryopreserved Embryo Transfer

Transfer of cryopreserved/thawed embryos consists of:

1. Preparation of endometrial lining
2. Thawing and culture of cryopreserved embryos
3. Assisted hatching and transfer of the surviving embryos into the uterus
4. Establishment of pregnancy

This is an example of a Cryopreserved Embryo Transfer treatment sequence. Actual treatment is individualized.



### 1. Preparation of Endometrial Lining

When you decide to have your embryos thawed and transferred, please call us with the onset of a menstrual period. Oral contraceptives are started within the first seven days of the menstrual cycle. They are used to suppress the ovarian function and to begin the process of synchronization between the development of the endometrial lining and the development of your frozen/thawed embryos. Some cryopreserved embryo recipients do not need to take the oral contraceptives.

One to two weeks before the estimated onset of the following menstrual period, Lupron injections begin. Lupron "puts ovaries to sleep" and temporarily stops their production of estrogen and progesterone. The endogenous estrogen and progesterone secretion would interfere with the development of the endometrial lining. Lupron injections are given for approximately four weeks.

After one to two weeks of taking Lupron, a menstrual period will start. Within one to three weeks of the onset of the period, the recipient will begin taking estrogen in the form of skin patches. The progress of the development of the uterine lining will be monitored with ultrasound examinations and estrogen blood levels.

When the endometrial lining is sufficiently developed, progesterone is added to the estrogen. The addition of progesterone opens the "window of receptivity" of the uterine lining and synchronizes its development with the development of your thawed embryos. Progesterone is given as a daily intramuscular injection for the first four days of its administration, after which it is administered as progesterone vaginal capsules.

### 2. Thawing and Culture of Cryopreserved Embryos

At the time of embryo cryopreservation, one to three embryos are stored in a straw. You will need to decide how many of your straws should be thawed. To maximize the probability of a live birth, many couples have all their straws thawed and transfer all their surviving embryos. As an alternative, you may decide on a number of embryos to be transferred. It is possible to thaw one straw at a time and keep thawing additional straws depending on the survival of the embryos until the desired number is reached. Since, typically, there are two embryos per straw, you could end up with one more surviving embryo than the number you wanted to transfer. You must decide and communicate to us no later than the progesterone start day which of the two thaw approaches we should use.

### 3. Assisted Hatching and Transfer of the Surviving Embryos

Assisted hatching of embryos creates a "weak spot" in the eggshell of an embryo. This increases the likelihood of the embryo hatching out of the eggshell, implanting and resulting in a live birth. Cryopreserved/thawed embryo transfer is identical to a "fresh" embryo transfer. There is no increased risk of birth defects in pregnancies from cryopreserved embryos compared with conceptions conceived through intercourse.

### 4. Establishment of Pregnancy

As with "fresh" embryo transfer, the probability of a live birth with the cryopreserved-thawed embryos depends on the number and the quality of the transferred embryos. Typically over half of the cryopreserved embryos survive the cryopreservation/thawing process. The implantation rate of the surviving embryos is similar to the "fresh" embryos.